

# **THE SEARCH FOR EQUITY IN SCHOOL FINANCE: RESULTS FROM FIVE STATES**

**PREPARED FOR THE NATIONAL INSTITUTE OF EDUCATION**

**STEPHEN J. CARROLL**

**WITH THE ASSISTANCE OF MILLCENT COX AND WILLIAM LISOWSKI**

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PREFACE

With support from the National Institute of Education (Contract No. 400-76-0160), The Rand Corporation analyzed the effects of recent school finance reforms in five states: California, Florida, Kansas, Michigan, and New Mexico. The study had two main objectives: (1) to describe the pre- and post-reform school finance outcomes in the individual states and to compare the differential outcomes of the reforms adopted by the five states; and (2) to estimate the effects of fiscal and other factors on school districts' budgetary behavior. The overall purpose of the study was to provide information for officials in states that have yet to undertake or to complete reform, and for federal officials with responsibilities in the area of school finance.

The study results are reported in three volumes. This report presents the descriptive analysis. It examines for each state (1) pre- and post-reform distributions of revenues, expenditures, and tax rates; (2) the degree to which reform has been accompanied by an increase in intrastate fiscal neutrality; and (3) the kinds of districts that have benefited most (or least) from reform. It also compares these outcomes among the states and offers some general conclusions regarding the effects of these states' reforms.

A companion report, R-2393-NIE, *The Search for Equity in School Finance: Michigan School District Response to a Guaranteed Tax Base*, documents the analysis of school districts' budgetary behavior. The report focuses on Michigan because the California, Florida, Kansas, and New Mexico reform plans constrain school districts' revenues or tax rates or both. Econometric models are used to estimate the effects of different types of grants (federal or state, categorical, unrestricted block, or matching), the "prices" (or matching rates) of revenues per pupil to districts and to households, and the effects of characteristics of district populations on expenditures per pupil.

The work was partially supported by the Educational Policy Research Center for School Finance and Governance established at Rand under Contract No. 300-76-0065 with the Office of the Assistant Secretary of Education.

The third volume, R-2420-NIE, *The Search for Equity in School Finance: Summary and Conclusions*, summarizes the study's principal findings. It includes the major results of both the descriptive analysis and the analysis of districts' budgetary behavior.

### SUMMARY

During the last seven years there have been significant reforms in the educational financing systems of at least 22 states. This study assesses the outcomes of the reforms enacted in five of those states--California, Florida, Kansas, Michigan, and New Mexico--whose new financing laws represent the major approaches to reform in the post-Serrano era. We describe the pre- and post-reform distributions of revenues, expenditures, and local property tax rates in each state. We also investigate the degree to which school districts' revenues, expenditures, and local property tax rates are associated with their fiscal capacities (measured by per pupil property tax base or household income per pupil) or efforts (measured by the local property tax rate) before and after reform in each state. Finally, we describe the ways in which revenues, expenditures, and tax burdens have been redistributed among districts that differ in size, the percent of the districts' population residing in urban areas, the percent of the districts' population who are white, and the percent of the districts' population whose incomes are below the poverty level.

We obtained data on districts' tax rates, wealth, and number of pupils from state sources. Data on household income, percent urban, percent white, and percent poverty were obtained from 1970 Census, fifth count, information compiled to 1974 school district boundaries. We used the Census definitions of household income, urbanity, race, and poverty level.

### THE EFFECTS OF REFORM IN CALIFORNIA

Our data for California span three pre-reform years--1970-1971 through 1972-1973--and four post-reform years--1973-1974 through 1976-1977.

Prior to reform, California provided flat grants to all school districts. Equalization aid was distributed through a foundation program. The reform package left the flat grant program unchanged.

It nearly tripled the foundation guarantee to elementary schools and more than doubled the foundation guarantee to high schools. It also imposed revenue growth limits, allowing greater increases to lower-spending districts and providing them an opportunity to "catch up" with higher-spending districts.

California's reform plan has had moderate success in reducing disparities in the distributions of revenues per pupil. Roughly two-thirds of the state's public school students attend school in unified districts; reform has reduced disparities in the distributions of revenues among these students by 32 to 36 percent. Elementary school districts enroll about 20 percent of the students; they have experienced some declines in revenue disparities, on the order of 20 percent. Reform has not greatly reduced disparities in the distributions of revenues among students in high school districts, but these districts enroll only about 10 percent of the state's students. Reform has had far less effect on disparities in the distribution of instructional expenditures per pupil among districts of any type; however, instructional expenditures were more evenly distributed than revenues before reform. Finally, reform has substantially reduced interdistrict disparities in tax rates among districts of all three types.

Wealth neutrality has been improved by reform but revenues remain highly dependent on property tax bases in all three types of districts. Income neutrality has been improved even more, but again income seems to be a major determinant of school district's revenues. There have been slight increases in the degrees to which high schools' and unified districts' tax rates are associated with their revenues, and a substantial increase in the association between elementary school districts' tax rates and their revenues. All in all, after reform, school districts of all types found their revenues somewhat more dependent on their fiscal efforts and less dependent on the size of their tax base and the income of their community.

Reform has not profoundly affected the distributions of revenues or instructional expenditures between large and small, more urban and less urban, more white and less white, or more poverty-prone and less



poverty-prone districts. The distributions of tax rates, on the other hand, changed considerably. Larger elementary and high school districts decreased tax rates relative to their smaller counterparts, but the larger unified districts increased theirs relative to smaller unified districts. The same pattern by district type holds for the less urban vis-a-vis the more urban districts. Tax rates in all types of districts rose higher in less white communities than they did in more white communities. In all three types of districts, tax rates declined in districts serving less poverty-prone populations relative to districts serving more poverty-prone populations.

#### THE EFFECTS OF REFORM IN FLORIDA

Prior to 1973, Florida had a variable-level foundation program according to which each district's foundation guarantee was determined by the sum of allowances for salaries, transportation, and other current expenditures. Florida retained this approach when it reformed its system in 1973, but revised the procedure used to calculate each district's foundation guarantee. Weights, or relative levels of support, were assigned to each of 26 programs. The number of full-time-equivalent students in each program is multiplied by the program weight and then multiplied by the base student value annually set by the legislature. The sum of the program entitlements was then adjusted by the cost-of-living index for the county in which the district is located. Districts may generate additional funds up to 8 mills.

Our data for Florida pertain to the 1972-1973 and 1975-1976 school years.

Florida's reform has increased disparities in revenues per pupil and in instructional expenditures per pupil.

Reform has led to a substantially less fiscally neutral finance system. The degree of association between each per-pupil revenue variable and wealth, and between instructional expenditures per pupil and wealth, increased--by a considerable amount in some cases--between 1972 and 1975. More important, before reform districts' per-pupil

revenues and instructional expenditures were independent of the incomes of the communities they served. After reform, however, there is a highly significant relationship between each revenue and expenditure variable and household income per pupil. Florida's reform involved a shift from an income-neutral finance system to one that is significantly biased with respect to income. Finally, the relationship between revenues and instructional expenditures on the one hand and tax rates on the other declined substantially between 1972 and 1975. School districts' revenues and instructional expenditures are less closely related to their tax efforts after reform than they were before.

Florida's reform has benefited the larger and the more urban districts more than it has the smaller and less urban districts, and reform has very substantially benefited districts serving communities in which a relatively small proportion of the population is in poverty.

Florida's reform system was designed to direct greater state aid per pupil to districts that have relatively high numbers of "expensive-to-educate" pupils and/or serve counties in which the cost of living is relatively high. In fact, the distribution of different types of pupils in districts is such that the distribution of weighted pupils is virtually identical to the distribution of unweighted pupils. (The simple correlation between the number of weighted pupils and the number of unweighted pupils across Florida's districts in 1975 is .9999.) Except for the cost adjustment in the tax rate limits, Florida's system is, for all practical purposes, a foundation plan with a cost-of-living adjustment. The cost adjustment strongly favors the more urban districts, particularly Dade county, and thus favors Florida's larger, more urban, higher-income, and less poverty-prone districts.

#### THE EFFECTS OF REFORM IN KANSAS

Kansas school finance reform was implemented in the 1973-1974 school year. Our data are for the 1972-1973 through 1974-1975 school years.

Prior to reform, state general aid to the schools was delivered through a foundation plan to which a supplemental aid program had been appended. A district's state guarantee was based on its enrollment and the number, training, and experience of its certificated district employees. District ability to pay was based on a county-wide economic index prorated to the district according to its share of the certificated employees in the county. The supplemental program provided a small amount of additional state aid to school districts based on the number of students, the number of certificated employees, and adjusted valuation per pupil. The 1973 reform replaced the state foundation and supplemental aid programs with a guaranteed tax base program. School districts were limited in their annual budget increases to the lower of 15 percent of the previous year's budget or 5 percent of the median budget per pupil for Kansas districts in the same enrollment category. In addition a percentage of state personal income tax receipts are now rebated to the county where collected, and are distributed to the school districts within their county.

Revenues per pupil were somewhat more equally distributed in 1974 than they were in 1972, particularly in the large districts. Disparities in the distributions of revenues declined 5 to 10 percent among the small- and medium-sized districts and 15 to 20 percent among the large districts. The distribution of instructional expenditures per pupil among small and among medium districts was virtually unchanged by reform. For the large districts, disparities in the distribution of instructional expenditures declined by about 18 percent between 1972 and 1974. The distributions of adjusted tax rates, on the other hand, became much more equal for all types of districts. Disparities fell by roughly one-third with reform.

Kansas reform has had little effect on fiscal neutrality. Associations between per pupil revenues or instructional expenditures and the property tax base remained about the same after reform. Revenues and instructional expenditures were somewhat more closely related to household income per pupil in 1974 than they were in 1972. The tax rate was unrelated to revenues or expenditures in either year.

among the small districts. It was slightly related to revenues and instructional expenditures both before and after reform for medium-sized districts and in the post-reform years for the large districts.

Among small districts, reform's big winners were the urban districts, the less white districts, and those where the incidence of poverty was lower. The distributions of revenues and instructional expenditures among different kinds of medium and large districts were not much affected by reform.

#### THE EFFECTS OF REFORM IN MICHIGAN

Prior to reform, Michigan distributed general aid to the schools through a multilevel foundation program in which different foundation guarantees and computational tax rates applied to districts whose assessed value fell into different intervals. In 1973 Michigan introduced an unrestricted guaranteed tax base plan with an upper bound on the number of mills for which state aid was paid. Districts, however, may levy higher rates.

Our data span the five years from 1971-1972 through 1975-1976.

Revenue disparities remained about the same following reform, but disparities in tax rates declined substantially.

As regards fiscal neutrality, the results are mixed. The post-reform years saw much more income neutrality and substantial increases in the degree to which revenues depended upon the tax rate. But wealth neutrality appears greater only in comparison with 1971. Compared with 1972, the post-reform years show little improvement.

Finally, reform has had little effect on the distributions of revenues among various kinds of districts or on the distributions of tax rates between large and small, urban and nonurban, and disproportionately white and nonwhite districts. Districts in which the incidence of poverty was relatively low levied considerably lower taxes before reform; after reform, they still levied lower taxes but their relative advantage has been much reduced.

What did not happen in Michigan as a result of reform is as interesting as what did. Michigan's reform plan placed no restrictions

on district's choices of budget levels (and tax rates). Districts in which "tastes" for education are high vis-a-vis other public and private goods and services could levy high local taxes and generate high revenues. Districts whose populations would prefer lower taxes (and lower school budgets) could indulge those desires. Despite its lack of constraints, Michigan's reform plan has not resulted in widely varying district choices. If anything, revenues are somewhat more equally distributed after reform than they were before, and disparities in local tax rates have substantially lessened.

#### THE EFFECTS OF REFORM IN NEW MEXICO

New Mexico changed its school finance plan in 1974. Before then, state aid was distributed through a flat grant program and a small "equalization aid" program (essentially a foundation plan). In its reform, New Mexico assumed full responsibility for school finance while retaining the local district as the operating unit. The reform plan allows no local discretion on district's revenues or tax rates. A pupil weighting system, with adjustments for teacher cost differentials, is used to determine each district's budget. The schools are financed out of state funds plus a state-mandated local levy.

We obtained data for New Mexico for the 1972-1973 through 1975-1976 school years.

Reform has not affected disparities in local and state revenues per pupil and in instructional expenditures per pupil. Disparities have lessened somewhat in local plus PL874 revenues per pupil, in local plus state plus PL874 revenues, and in total revenues per pupil, but the reductions in disparities in the latter two variables are small. It appears that the primary effect of the reform, as far as distributional equality is concerned, is to "equalize" PL874 revenues.

Fiscal neutrality has generally improved, but wealth remains a significant predictor of revenues and of instructional expenditures. Reform has improved income neutrality. The state-mandated local property tax levy fully eliminates any relationship between local tax effort and school districts' revenues or instructional expenditures.

The larger, the more urban, and the more white districts have gained on their smaller, less urban, and less white counterparts. But the gains have been small and the larger and the more urban districts still have lower average revenues and instructional expenditures. After reform, average revenues and expenditures in the districts serving less white populations were generally lower than in the districts serving more white populations. The reverse had been true before reform. However, none of the above-noted shifts have been large.

#### CONCLUSIONS

Our results suggest that reform efforts in these five states have brought about only slightly more equal distributions of per pupil revenues; nor have they reduced disparities in instructional expenditures per pupil by much, if at all. However, reform has led to more equal distributions of tax rates.

Reform has improved wealth neutrality; both revenues and instructional expenditures per pupil are less closely related to property tax bases after reform than they had been before. While income neutrality improved in some cases, the distributions of revenues and of instructional expenditures per pupil are in other cases more income-biased after reform than they were before. In many cases, reform has increased the relationship between local district's tax efforts and their revenues and instructional expenditures per pupil; however, in other cases, the relationship between a districts' tax effort and its revenues and instructional expenditures has worsened with reform.

What kinds of districts and students gained from reform? Who lost? Our results suggest that, with rare exceptions, reform has not affected the distributions of per pupil revenues or instructional expenditures per pupil or of tax rates among different kinds of districts. The one set of results that reveals substantial effects from reform suggests that tax rates have generally fallen in districts

where the incidence of poverty is low relative to those where it is high. In numerous instances reform brought about a more equal distribution of tax rates.

All in all, reforms in these five states have not dramatically reduced the problems that originally gave rise to pressures for school finance reform. There has been considerable progress, but overall, each state's post-reform distributions of revenues and instructional expenditures are remarkably similar to what they were before. From the perspective of tax equity, however, these reforms appear to have been quite successful. In every case except Florida, disparities in tax rates have been dramatically reduced. Reform seems to have been an effective device for equalizing the burdens of supporting education.





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Millicent Cox of The Rand Corporation obtained the data employed in this study and performed the complex tasks required to combine information from a variety of different sources into an accessible database for each state. She also developed detailed descriptions of each state's pre- and post-reform school finance plans; the summary descriptions that appear at the beginning of each state's chapter were derived from her work. William Lisowski performed the vast number of computations required to develop the substantial measures discussed in the text and reported in App.A.

We were not always able to follow the advice we received; any errors of commission or omission are our sole responsibility.



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Chapter 1  
INTRODUCTION

PURPOSE OF THE STUDY

During the last seven years, at least 22 states have been enacted significant reforms in their educational financing systems. The principal aim has been to reduce the wide interdistrict disparities in school spending permitted by the established state system, the inherent inequity of systems that base access to resources on local property values, and the inadequacy of existing mechanisms for allocating funds according to the needs of pupils in different places. To date no standard model of reform has dominated the field. Reforms have differed in number, kind, and degree. It is frequently asserted, and it seems reasonable to believe, that different financing systems are appropriate to the circumstances of the different states. At present, however, there is no consistent body of information either on how well reforms have worked in the individual states or on the relative effects of various approaches to reform.

This study assesses the outcomes reform in five states--California, Florida, Kansas, Michigan, and New Mexico--whose new financing laws represent the major approaches to reform in the post-*Serrano* era. We describe the pre- and post-reform distributions of revenues, expenditures, and local property tax rates in each state. We also investigate the degree to which school districts' revenues, expenditures, and local property tax rates are associated with their fiscal capacities or efforts before and after reform in each state. Finally, we describe the ways in which revenues, expenditures, and tax burdens have been redistributed among districts that differ in various characteristics. Our overall objective is to provide information on the distributional effects of specific reform measures.

BACKGROUND

The distributional shortcomings of the pre-reform school finance plans have been exhaustively documented both in the research literature

and in the massive evidence compiled for the school finance cases.<sup>1</sup> The main source of financial inequality under the systems that prevailed in nearly all states before 1970, and that still prevail in many states, is the interaction between local property taxation and methods of distributing state aid.

Prior to 1970, the most common state school finance plan was based on the concept of the foundation program.<sup>2</sup> The typical foundation system guarantees each district a minimum amount of funding per pupil (the foundation level) at a stipulated property tax rate. A district's state aid is the difference (if greater than zero) between the foundation level and the amount per pupil that the district could raise locally at the specified rate. Most states using a foundation plan require that a district's property tax levy be at least as large as the stipulated rate if it is to receive any aid.

Foundation plans are equalizing to the extent that they ensure that all districts have equal access to the foundation level of spending per pupil. In nearly all pre-reform instances, however, the foundation level had been set far below the statewide average level of spending per pupil, and districts were left to make up the difference by drawing on their own highly unequal property tax bases. And foundation plans do nothing to equalize the differences between "in-plan" districts and districts so wealthy that their local levy at the stipulated rate exceeds the foundation level.

To illustrate, consider two districts whose assessed values per pupil are \$20,000 and \$10,000. Suppose the foundation level is set at \$500 per pupil at a tax rate of 2 percent (20 mills). The districts would receive grants of \$100 (\$500 less  $.02 \times \$20,000$ ) and \$300 (\$500 less  $.02 \times \$10,000$ ) per pupil, respectively. The two districts, though greatly different in wealth, would each be able to provide a

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<sup>1</sup>Wise (1968) and Coons, Clune, and Sugarman (1970) are the seminal statements of the problem. Brown et al. (1977) summarizes the disparities in expenditures and the relations between disparities and local wealth in each of the 50 states.

<sup>2</sup>For a more detailed explanation of the foundation program, see Barro (1974). According to NEFP (1971), 34 states operated foundation-type systems in 1968-1969.



\$500 per pupil educational program at a rate of 2 percent. But the formula does nothing to compensate for differences in local ability to augment the foundation program. If the same two districts each taxed themselves at a rate of 4 percent, the first would be able to spend \$900 per pupil (\$800 raised locally plus \$100 in state aid) while the second raised only \$700 per pupil (\$400 in local revenues plus \$300 in state aid). Or, to achieve a spending level of, say, \$1000 per pupil, the first would have to levy 4-1/2 percent; the poorer district would have to impose a 7 percent rate to do as well.

A third district, whose assessed property value per student was \$50,000, would receive no aid; but it could raise \$2000 per pupil at a 4 percent levy and would need to levy only 2 percent to raise \$1000 per pupil.

Several states operated flat grant distribution schemes.<sup>1</sup> These plans equalize only to the extent that districts' revenues are not entirely dependent on local resources.

A few states, prior to 1970, had adopted plans with features similar to those now advocated by reformers, including matching grant plans of the "percentage equalizing" type. However, the operation of these formulas was typically so hemmed in by constraints (aid floors and ceilings, limits on matching rates, etc.) that the results were scarcely distinguishable from those under the more conventional foundation and flat grant systems.<sup>2</sup>

Three features of these plans, working in combination, produced both unequal financial opportunities and unequal outcomes: First, local school districts were left to depend on their own property taxes for the portion of revenue not provided by the state. Second, in many states the amount of locally taxable property per pupil varies drastically among districts. Third, state aid funds have not been

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<sup>1</sup>According to NEFP (1971), seven states distributed flat amounts of aid per pupil in 1968-1969.

<sup>2</sup>For examples, see the descriptions of the New York, Massachusetts, and Rhode Island plans in U.S. Office of Education (1972).

distributed in a way that compensates for interdistrict tax base disparities, even under systems supposedly designed to equalize resources among districts. The school finance reforms of the 1970s were designed to remedy these shortcomings.

#### REFORM THEMES

Reform advocates generally agree on the need for more equitable school finance systems, but disagree on what those systems should be. Several types have been proposed. Some represent alternative means to accomplish the same current objectives, but others reflect quite different notions of what would constitute an equitable school finance system. And the plans thus far implemented by the reform states are similarly diverse.

Most (but not all) reform proposals embrace one or the other of two basic themes, or some compromise between them. The first is equalization of fiscal outcomes among the school districts within a state. This theme emerges from the egalitarian principle that all students and all taxpayers in a state ought to be treated alike. The state's school finance system, in this view, should not allow any student (or taxpayer) to obtain a more expensive education (or lower tax burden) than that afforded others in the state. Accordingly, the pre-reform systems are inequitable because they allow students and taxpayers in wealthy (high per-pupil tax base) districts to obtain a more expensive education at a lower tax burden.

The exemplary finance plan associated with the notion of equalizing fiscal outcomes is *full state assumption*. In the simplest version of this type of plan, the state simply mandates both the local tax rate and revenues per pupil. Every district levies the tax rate and receives state aid equal to the difference between the local per pupil revenues it raises at that rate and the state-mandated revenues per pupil. Thus, tax rates and school spending are identical across the state. More complex versions of this type of plan emerge when alternative definitions of fiscal outcomes are used, but the basic principle of equalizing tax burdens and school resources, however defined, remains.

The second theme is equalization of fiscal opportunities among the state's school districts. This theme reflects a concern for local control of the schools or, more generally, of local public agencies. Individual communities should be allowed to provide a more expensive education to their children if they are willing to shoulder the tax burdens of doing so. The pre-reform plans were inequitable, according to this view, because low-wealth communities had to levy much higher tax rates to achieve the same level of spending as high-wealth communities. The problem was not disparity in school spending but, rather, that the low-wealth districts did not have the same ability to raise school revenues as did high-wealth communities. Thus, a state's school finance system should be fiscally neutral in the sense that any district can obtain the same level of funding as any other district provided only that it put forth the same tax effort.

A type of plan variously termed guaranteed tax base (GTB), power equalizing, or variable matching systems<sup>1</sup> exemplifies the notion of fiscal neutrality. The typical such plan guarantees each district a certain minimum revenue per pupil for each mill of tax effort. That is, a district's state aid equals the difference, if positive, between the revenues it would raise at its tax rate if it had the state guaranteed tax base per pupil and the revenues it actually raises at that rate. Thus, in a state which guaranteed a tax base of \$40,000 per pupil, a district whose per-pupil tax base was \$20,000 would receive \$20 state aid per pupil for each mill it levied while a district whose per-pupil tax base was \$15,000 would receive \$35 per pupil in state aid for each mill it levied.

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<sup>1</sup>The terms "guaranteed tax base" and "variable matching" are generally used in reference to a formula that ensures to each district a minimum revenue per pupil for each percentage point of tax effort. "District power equalizing" (DPE) generally refers to a plan that also allows each district no more than the guaranteed amount of revenue per unit of tax effort. That is, a DPE plan is a GTB plan with full recapture of "excess" local revenue by the state. For further details, see Barro (1974).

It should be noted that, in practice, equalization and fiscal neutrality are conflicting themes. Equal fiscal outcomes will result from a system which provides equal fiscal opportunities only if every district chooses to realize its opportunities to precisely the same degree. It seems unlikely that diverse communities would all have precisely the same taste for public education vis-a-vis private and other public goods and services.<sup>1</sup> Thus, if a state's school districts are confronted with equal fiscal opportunities (i.e., a fiscally neutral school finance system), they will select different levels of funding. Conversely, a state's school districts will exhibit equal outcomes only if the school finance system precludes local choice and mandates both the funding level and the level of tax effort.

Each of these main themes subsumes a number of different approaches to reform, depending on how one defines fiscal outcomes or fiscal opportunities. In either case, for example, there is the question of whether outcomes or opportunities should be measured in terms of dollars per pupil, school resources per pupil, or the extent to which each pupil's needs are met. Some reform plans simply focus on district funding; others focus on funding levels adjusted for presumed interdistrict differences in the costs of school resources and/or in the proportion of pupils who are "expensive to educate" or who have special needs. And there is the question of what revenues or expenditures should be included in the measurement of outcomes or opportunities: all categories of per pupil funding regardless of source or purpose? Funds received from some sources (e.g., local revenues and state general aid) but not from others (e.g., state and federal categorical grants)? Funds employed for certain purposes (e.g., current operations) but not those employed for others (e.g., capital outlays)? And so forth.

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<sup>1</sup> Studies of school districts' expenditure behavior consistently find that communities' choices of school expenditures are related to their characteristics (e.g., income, wealth, percent of the population employed in professional occupations). See, for example, Park and Carroll (1978).

Fiscal limits or constraints have also played an important role in the reform debate. Many states have imposed limits on school districts' revenues or tax levies as a part of their reform plan. In some cases, the school finance reform plan was enacted as a part of a larger bill addressing tax issues. California's 1973 reform, for example, was included in Senate Bill 90 (SB 90), which imposed revenue limits on all local governments: cities, counties, and special districts, as well as school districts. Depending on one's point of view, revenue or tax rate limits may be interpreted as devices for bringing about gradual equalization, for delaying equalization, for limiting disparities in a system that permits local discretion, for controlling the cost of state aid, or for forcing local districts to translate a part of their state aid into local property tax relief.

#### REFORM PLANS IN THE SAMPLE STATES<sup>1</sup>

The reform plans in California, Florida, Kansas, Michigan and New Mexico reflect diverse views of what reform entails.

California combined a high-level foundation plan with differential expenditure growth limits. The foundation program very substantially increased state aid to low-wealth districts, while the expenditure growth limits allowed greater expenditure increases to lower-spending districts. Different foundation levels, computational tax rates, and growth allowances are provided for elementary, secondary and unified districts.

Districts may seek voter approval for tax overrides. If successful, their expenditures may exceed their growth limit by the amount of local revenues generated by the additional tax levy.

Florida also retained the foundation program approach. The reform plan incorporates a very extensive system of adjustments for the distribution of a district's pupils among 26 different categories, and an adjustment for the cost of living in the county served by a district. Local districts are limited to a narrow range of tax rates.

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<sup>1</sup>Chapters 3 through 7 provide detailed descriptions of each state's pre- and post-reform school finance plans.

Kansas adopted a GTB plan constrained by strict limits on expenditure growth and tied, in a complicated fashion, to "norm" budgets. The growth limits allow districts spending below the "norm" to increase their budgets more rapidly than can districts spending above the "norm." The state's districts are divided into three enrollment categories; different "norm" budgets are specified for each category.

Michigan introduced an unrestricted GTB plan with an upper bound on the number of mills for which state aid is paid. Districts may levy higher rates.

New Mexico has assumed full responsibility for school finance, while retaining the local district as the operating unit. The New Mexico plan allows no local discretion on districts' revenues or tax rates. A pupil-weighting system with adjustments for teacher cost differentials is used to determine each district's budget, and the schools are financed out of state funds plus a state-mandated local levy.

These plans do not represent alternative approaches to a common objective of equity, unless "equity" is defined so vaguely as to be an operationally meaningless term. Rather, they are approaches to very different notions of what equity demands. Michigan's plan, for example, is clearly oriented toward providing more equal fiscal opportunities, defined as per pupil revenues per mill levied, and does nothing to impose a more equal distribution of fiscal outcomes on the state's school districts (though the choices they make may, of course, result in a more equal distribution of fiscal outcomes than obtained before reform). New Mexico's plan seems designed to equalize fiscal outcomes, defined in terms of tax rates and the degree to which a district's real resources (i.e., adjusted for cost differences) are matched to its students' needs.

California, Florida, and Kansas opted for what can be construed as compromise plans: Each allows a local district limited discretion in selecting its budget and tax rate. The Kansas plan attempts to reduce inequality in the distribution of per pupil budgets by more

severely limiting revenue growth in higher-spending districts. At the same time, it fiscally neutralizes whatever spending differences remain. The division of districts into three categories can be viewed as a cost-adjustment to compensate for economies of scale.

California and Florida also have imposed limits, on revenue growth rates and tax rates, respectively, which coupled with their foundation programs' floors on spending, seem designed to reduce inequities in fiscal outcomes. Both states appear to define fiscal outcomes in terms of tax rates and pupil needs. (California's tripartite system can be interpreted as a response to the differential needs of elementary and high school students.) And Florida's adjustment for intercounty differences in the cost of living can be interpreted as an adjustment for resource cost differences. Although neither state attempts to fiscally neutralize the expenditures differentials permitted within their plan, the floor imposed by the foundation program, coupled with the revenue or tax limit, constrains the degree to which high-wealth districts are able to take advantage of their fiscal capacities. In this sense, California and Florida limit wealth bias in their school finance systems.

We are not suggesting that the legislators who enacted these plans or the governors who signed them into law had any particular set of objectives in mind. We do not imply, for example, that those involved in Michigan's reform were solely concerned with fiscal neutrality and had no interest in the equalization of fiscal outcomes or in other goals that the reform plan might have promoted. But regardless of what the plan's developers and supporters--or, for that matter, opponents--wanted to accomplish, or thought the plan would achieve, the plan itself focuses on equalization of fiscal opportunities. Similarly, the other states' plans, whatever might have been the objectives of those involved in their adoption, focus on equalization of fiscal outcomes (New Mexico) or on various compromises between equalization of fiscal outcomes and equalization of fiscal opportunities.

### STUDY APPROACH

This study examines the aftermath of reform in each state. We make no attempt to discern the extent to which any state's plan served the purposes, whatever they might have been, of those involved in its development, revision, and eventual passage. Rather, our objective is to provide information on the consequences of adopting a plan oriented toward fiscal neutrality, or toward outcome equalization, or toward some compromise between the two basic themes. Thus, we examine the effects of that state's plans on the distributions of fiscal outcomes. The plan may not have been designed to achieve more equal fiscal outcomes; but the distributions of fiscal outcomes among a state's school districts are clearly an important reform issue, and the effects of a GTB plan on those distributions are of interest to those concerned with school finance reform.

More generally, we examine the effects of each state's reform on the distributions of fiscal outcomes, on the distributions of fiscal opportunities, and on certain types of districts. The latter include districts distinguished by size, by the percent of the population they serve who live in urban areas, by the percent of their minority population, and by the percent of their population who are members of families with income below the poverty level. Our interest in the distributions of fiscal outcomes and fiscal opportunities follow from the major reform themes. Even casual observation suggests that many individuals evaluate reforms in terms of their impacts on certain types of communities or people (e.g., central cities, low-income people); hence, our interest in how various types of districts fared.

Participants in the reform debate have yet to agree upon the fiscal outcomes or fiscal opportunities that are of interest. Our own views are put forward in Chap. 2. In the interests of providing useful information to readers with differing views and to facilitate comparisons of our results with those obtained in other studies, we examined the effects of reform on as many notions of fiscal outcomes and opportunities as was possible given the resources and the data available for this study. Specifically, we consider five measures of



current revenues per pupil (which differ in the inclusion of revenues from various sources and for various purposes), instructional expenditures per pupil, and local property tax rates. We compare the pre- and post-reform distributions of each variable; the relationships between each variable and wealth per pupil, household income and, for the first six variables, the tax rate; and the distributions of each variable among districts distinguished by their size, percent urban population, percent minority population, and percent poverty population.

In each case we use a wide variety of statistical measures to evaluate distributional disparities and degrees of relationship. Here again, we seek to serve the information needs of people with different views of how distributions of fiscal outcomes or of fiscal opportunities should be summarized.

The discussion concentrates on the results obtained using the pupil as the unit of analysis. Parallel results for the district as the unit of analysis are provided in the appendix.

Chapter 2 discusses the variables we examined and the statistical measures we calculated for each variable.

#### LIMITATIONS OF THE STUDY

This study is not an evaluation of school finance reforms, or of any particular reform plan or plans. There are no generally agreed upon criteria against which the outcomes of reform can be measured. We merely provide information on how various distributions and relationships changed with reform in each state. It is for the reader to judge whether those changes were for the better or for the worse and, in any event, whether they were "worth the effort."

Second, we compare post-reform distributions and relationships with those which obtained before reform. Most states reset their systems' parameters (e.g., the foundation level, the computational tax rate) annually. What changes would have been made if the systems had not been restructured and how those changes would have affected the distributions and relationships of interest here are questions beyond the scope of this study.

Third, our post-reform data cover four years in California, three years in Michigan, and two years in each of the other states. (Chapter 2 contains a complete list of the pre- and post-reform years for which data were available in each state.) The five states have reset the parameters of their reform systems annually and occasionally revised parts of the system itself. This study describes the effects of reform in the first two to four years and does not describe the states' contemporary distributions and relationships.

This limitation is particularly important in the case of California. The State Supreme Court, in 1976, found that SB 98 did not satisfy its *Serrano* decision. The legislature then passed Assembly Bill 65 (AB 65), which further limited revenue growth rates in high-spending districts, recaptured part of the revenues that districts obtained through voter overrides, and in part fiscally neutralized interdistrict differences in revenues per pupil. Most of AB 65's provisions took effect in the 1978-1979 school year. Proposition 13, passed in June 1978, was soon followed by the state "bailout"--a distribution of funds from the state's surplus to local governments, including about \$2.2 billion distributed to the schools. Proposition 13 dramatically cut school districts' local revenues; the bailout restored high-spending districts to 85 percent of their 1978-1979 budgets and low-spending districts to 92 percent of the revenues they had planned for the 1978 school year. At the same time, the bailout (and the governor's subsequent veto of a pay increase to state employees) banned pay increases to local government employees, including teachers. California's school districts thus entered the current school year with a financing system far different from the one whose effects are analyzed in this study.

Other limitations, particularly those stemming from problems we encountered in developing the data base for each state, are noted in subsequent chapters.

#### OUTLINE OF THE STUDY

Chapter 2 describes the fiscal outcomes and opportunities we examined and the statistical measures we employed to assess pre- and post-reform distributions relationships. Chapters 3 through 7 analyze the effects of reform in the five states. In each case we describe the state's pre- and post-reform school finance systems. Each chapter then discusses pre- to post-reform changes in the distributions of fiscal outcomes, in the relationships between school districts' fiscal outcomes and their fiscal capacities and efforts, and in the relative positions of various types of school districts. Each chapter ends with a brief summary and comments on how various aspects of the state's plan seem to have affected reform outcomes. Finally, Chapter 8 summarizes the results of reform in the five states and draws some general conclusions on what these reform plans have accomplished. The appendix provides additional statistical information on the pre- and post-reform distributions and relationships in each state.

## Chapter 2

### VARIABLES AND MEASURES

Proponents and opponents of reform have raised a broad spectrum of issues. Previous studies of the effects of reform in one state or another have examined diverse reform outcomes. And the reform plans thus far implemented seem oriented toward quite different goals. Views differ widely as to the particular outcomes or opportunities whose distributions are the central concern, and equally diverse views of what constitutes "success" in this context.

This chapter details the particular reform outcomes described in this study. We review some of the concepts of fiscal outcomes and fiscal opportunities that have figured in the reform debate. We then define the variables we used as indicators of reform outcomes. Finally, we describe the statistical measures we used to summarize distributions of fiscal outcomes and opportunities.

#### FISCAL OUTCOMES

As noted in the Introduction, two broad themes--equalization of fiscal outcomes and equalization of fiscal opportunities--recur throughout the reform debate.<sup>1</sup> Fiscal opportunities can be expressed in terms of the fiscal outcomes a district will obtain at a given tax effort; thus, concepts of fiscal outcomes are at the center of both themes.

Educational outcomes (e.g., pupils' achievements) and educational quality have also figured in the reform debate. However, as a practical matter, we lack methods for accurately measuring educational

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<sup>1</sup>Many commentaries express these themes as alternative paths to equity. But, as noted in the Introduction, the themes embody quite different notions of what equity entails, and they conflict in the sense that the outcomes that one pursues are inequitable from the other's perspective. In fact, they are different objectives, not different paths to the same objective.

outcomes or quality. Further, reform proponents have frequently argued that the effects of reform on educational quality, however measured, are irrelevant. Equality of educational opportunity, in this view, requires that students have equal access to educational resources, regardless of the contributions those resources make toward achievement.

The fiscal outcomes discussed in the context of reform differ from one another in two respects: adjustments for the financial circumstances of school districts (or taxpayers), and the scope of the outcomes.

Adjustments for Districts' (Taxpayers')  
Financial Circumstances

The distribution of expenditures (or revenues) per pupil is a widely shared reform concern. It rests on the straightforward philosophical base of treating all students alike, regardless of their, or their districts', characteristics, and poses minimal measurement problems. State-aid formulas oriented toward this concern are easily devised, and interested parties--including the courts--can readily verify the degree of equalization that has been achieved.

Critics, however, argue that dollars have little to do with educational equity. The school resources--teachers, books, materials, facilities, and so forth--available to students are what matter. Accordingly, equality needs to be measured in terms of the quantities and qualities of resources students receive. If there are interdistrict differences in resource costs, the distribution of funding per pupil does not reflect the distribution of resources per pupil. Thus, concern should focus on funding per pupil adjusted for resource-cost differentials.

The practical difficulties of measuring resource costs are severe. We lack means for assessing the quality of most school resources, particularly teachers, who account for the large majority of school expenditures. For example, the average teacher's salary in a district reflects the experience/education distribution of the teacher force.

If a teacher's experience and education do not contribute to the educational process, adjustments for the cost of maintaining a more experienced or educated, but not higher-quality, teacher force are appropriate. But if experience and education improve a teacher's quality, interdistrict differences in teachers' salaries attributable to differences in teacher force characteristics are the effect of interdistrict differences in teacher quality and do not imply resource cost differences. In this case, cost adjustment is not appropriate. Similarly, the level of a district's teacher salary schedule--the salary paid a teacher with any given experience and education--includes both the cost of obtaining a teacher with given characteristics and any premium the district may be willing to pay to attract and retain particularly able people. Thus, the funding of districts paying higher teacher salaries should be cost-adjusted if we can establish that they are not thereby attracting higher-quality personnel.

Whether reform should focus on the provision of inputs (either dollars or resources) or on the extent to which pupils' needs are met has been the subject of considerable debate. The latter view is based on the argument that the purpose of the schools is to further students' education and that some students (e.g., the disadvantaged, handicapped, learning disabled, etc.) require more resources if they are to progress as rapidly as their peers. In other words, if equity demands that equals receive equal treatment, then unequals (in the sense of educational needs) must receive unequal (compensatory) treatment. The growth of federal and state compensatory education programs testifies to the appeal of this principle. But the practical problems of measuring students' needs and translating those measurements into an aid allocation formula are even more severe than those encountered in constructing educational cost indices.

It is difficult to conceive of an operational definition of educational need that is not linked to some measurable performance or outcome index. But the education community has yet to agree on the outcomes or competencies that the schools should impart to students, or even to define many relevant dimensions of performance. Moreover,

we lack acceptable accurate means for measuring most of those performance criteria whose importance is agreed. For example, few would deny that cognitive achievement is an important educational outcome, and procedures for testing cognitive achievement are far more advanced than the methods used to test for other educational outcomes. Yet the accuracy of the available cognitive achievement tests is continually questioned. Additionally, existing knowledge of the relationships between resources and outcomes is so fragmentary and conflicting that statements regarding the relative amounts of resources needed by some kind of students (to keep pace with their peers or to achieve some performance objective) are virtually meaningless.<sup>1</sup>

It is worth noting that the pupil-weighting systems thus far proposed or implemented are essentially equivalent to categorical aid programs appended to a system which equalizes general funds or resources per pupil. Students are divided into a variety of categories according to perceptions of their needs, each category is assigned a weight, and funding (or resources) per weighted student is equalized. An identical result could be obtained by equalizing funding (or resources) per unweighted student and installing a set of categorical programs which funded category  $i$  students at a rate equal to the product of the category  $i$  weight minus one and the equalized general funding per pupil.<sup>2</sup> Thus, all the problems of determining an appropriate compensatory education system are encountered in developing a pupil-weighting, or student-need-adjusted, finance plan.

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<sup>1</sup>See, for example, Averch et al. (1974).

<sup>2</sup>Florida (in 1975-1976), for example, assigned a weight of 1.0 to fourth through ninth graders, 1.1 to tenth, eleventh, and twelfth graders, 2.3 to the educable mentally retarded, and so forth, for 26 different student categories. Each district is equalized at \$745 (times a cost adjustment factor) per weighted pupil. An identical result would be obtained from a system which equalized the cost-adjusted sum of \$745 per unweighted pupil, and provided \$74.50 in categorical funds ( $0.1 \times \$745$ ) for each tenth through twelfth grader, \$968.50 in categorical funds ( $1.3 \times \$745$ ) for each educable mentally retarded student, and so forth for all 26 student categories.

It should be noted that, as a practical matter, pupil-weighting systems may have little effect on the distribution of resources among a state's school districts. If every school district's pupils are distributed among the weighting categories in roughly the same proportion, the weighting process will have a negligible impact on the distribution of per-pupil revenues among the districts. Formally, if a state's system assigns a weight of  $\alpha_i$  to category  $i$  pupils, the  $j$ th district's entitlement (in a New Mexico type plan) or foundation (in

a plan like Florida's) will be  $\gamma P_j \sum_{i=1}^n \alpha_i p_{ij}$ , where  $\gamma$  is the entitle-

ment or foundation per weighted pupil,  $p_{ij}$  is the proportion of the  $j$ th district's pupils who are in category  $i$ , and  $P_j$  is the total number of pupils in the  $j$ th district. If the  $p_{ij}$ 's are constant across districts, the entitlement for the  $j$ th district can be written  $\alpha P_j K$ , where

$K = \sum_{i=1}^n \alpha_i p_{ij}$  is a constant. In other words, a support level of  $\gamma K$

per (unweighted) pupil would have yielded precisely the same outcome.

Florida's system is a good example of this point. The simple correlation between its districts' weighted pupils and their unweighted pupils was .9997 in 1975. There is not one district in the state in which the aggregate pupil weight is significantly different from (approximately) 1.26 times the number of pupils. If the state had entirely dispensed with its pupil-weighting system and simply set each district's foundation at 1.26 times \$745 per (unweighted) pupil, it would have obtained almost exactly the same distribution of fiscal outcomes.

#### The Scope of Concern

Fiscal outcomes, however defined, may encompass all categories of per-pupil funding or apply only to support from certain sources or for certain functions. The objective could be as broad as minimizing variation in districts' total expenditures per pupil or as



narrow as reducing disparities in the amount spent per pupil for teachers. Thus far, attention has centered on current support per pupil: Most descriptions of pre-reform systems emphasize interdistrict variations in current support per pupil; the reform plans implemented to date generally make no attempt to equalize debt service or capital outlays; and studies of their impacts focus on improvements in the distribution of per-pupil current revenues or expenditures.

The most troublesome issues raised by the question, "To what categories of funding or expenditures should equalization apply?" concern capital expenditures, revenues derived from state and federal categorical aid programs, and the distinction between revenues and expenditures.

In most states, debt service and capital outlays are supported by local property taxes and by state aid programs that are only mildly equalizing at best. Access to capital funds is as inequitably distributed as access to funds for the support of current operations. And there is no reason why the former should be of less concern than the latter. However, the conceptual and practical problems of addressing reform issues in the capital account have thus far proved insurmountable.

Conceptually, a district's physical facilities and equipment are a stock built up through the accumulation of past net investment flows. Past investment decisions, in turn, reflect the district's ability to obtain investment funds and its decisions regarding trade-offs between capital and other school inputs. Because capital outlays and debt service are largely financed through property taxes, districts having large per-pupil tax bases could raise more funds at a given tax rate than their less wealthy counterparts and, other things equal, would have accumulated a relatively larger capital stock over past years. But other things may not have been equal. One district may have chosen to make do with older facilities and equipment in order to "afford" a relatively larger teacher force, while another contented itself with fewer teachers per pupil, transferring funds from current account to capital account and modernizing old facilities or building

new ones. At any time, then, districts' capital stocks per pupil are likely to be unequal. And disparities between districts are partially due to past inequities in access to capital funds and partially due to differences in their past evaluations of the relative importance of facilities and other school inputs.

Equalization or fiscal neutralization of districts' capital outlays and debt service would affect only their relative access to funds for additions to, and replacements of, their current capital stocks. With the passage of time, of course, districts' current capital stocks will "run down" and eventually be entirely replaced by new investment. But equalization of access to investment funds would do nothing to equalize existing disparities in capital stocks. In fact, if the schools' capital stock is long-lived--and past experience suggests that school facilities tend to remain in use for many decades--equalization of investment may freeze existing disparities by precluding "catching up" by capital-poor districts. Reform on capital account must thus address both disparities in access to future capital funds and disparities in existing capital stocks, to the extent that they reflect past inequities in access to capital funds.

At present, we do not have methods for assessing the quality of a district's capital stock and, therefore, cannot measure interdistrict disparities in capital stocks. And even if we could, we would still need some method for determining the extent to which those disparities stem from past inequities in access to capital funds. It would be inequitable to equalize capital stock disparities resulting from past district choices among school inputs. But we have no such method. In sum, we lack the means for addressing reform issues with respect to capital outlay and debt service funds.

All federal aid to elementary and secondary education and approximately 15 percent of state support for the schools is distributed through categorical aid programs. In all, these programs account for nearly 15 percent of public education's total revenues. Most school districts derive some support from these programs and they are a major source of many districts' revenues.

Somewhat surprisingly, in view of their importance, the equalization debate has paid relatively little attention to these programs. Most of the studies which concentrate on the distribution of current revenues exclude funds from federal aid programs. But some include receipts from state categorical programs while others exclude them. The studies which concentrate on the distribution of current expenditures implicitly include categorical aid, willy-nilly, to the extent that categorical programs contribute to the support of current operations. And few studies of either type offer any explanation for their treatment of categorical revenues.

State legislators' views appear to be equally diverse. Most of the reform plans entirely neglect federal aid--presumably because equalization does not extend to federal revenues. However, Kansas and New Mexico adjust a district's general aid for receipts of Impact Aid (PL874) funds. Similarly, as noted above, pupil-weighting systems are equivalent to appending a package of categorical programs to an equalized general aid program. Thus, states opting for pupil-weighting systems formally extend the concept of equalization to all state aid, including both general and categorical aid, while those who maintain a separate system of categorical programs presumably exclude them in considering the equalization issue. In any event, there is no general agreement as to how categorical programs should be treated in assessing interdistrict funding disparities.

Should reform focus on the distribution of revenues or on the distribution of expenditures? The question is moot if equalization extends to all categories of funding: Total revenues equal total expenditures plus increases (minus decreases) in balances, and the latter are negligible relative to total revenues or expenditures. At lower levels of aggregation, revenues are generally categorized by source while expenditures are categorized by use. There are no expenditure categories corresponding to, say, local revenues or state noncategorical aid, and no revenue categories corresponding to, say, instructional expenditures or spending for teachers. Thus, the decision to focus on some measure of support that is less inclusive

than current revenues or expenditures precludes a choice between a revenue-oriented measure and an expenditure-oriented measure. But there is an important difference between current revenues and current expenditures. Because current support per pupil is the most common focus of equalization efforts and analyses, the choice between a revenue-oriented measure and an expenditure-oriented measure is significant.

All states preclude transfers of funds from capital account to current account, but most permit transfers from current account to capital account. Thus, current revenues generally exceed current expenditures and the difference can be significant. If the rate at which districts transfer funds from current to capital account is related to their per-pupil revenues, the distribution of revenue per pupil may noticeably differ from the distribution of per-pupil expenditures.

Suppose, for example, that districts with relatively high revenues per pupil devote disproportionately more of their funds to the improvement of plant and equipment, while districts with relatively low revenues per pupil find that current operating expenditures consume a relatively large share of the funds available to them. This would be the case if districts generally viewed improved plant and equipment as luxuries to be indulged in only after current operations are supported at an "adequate" level. Then, the distribution of current expenditures would be much more equal than the distribution of current revenues. More generally, a state which appears to be fairly equalized, using distribution of current expenditures as the criterion, can appear to be far less equalized if distribution of current revenues is the criterion.

#### Adjustments to and Scope of Tax Burdens

For concreteness, the above discussions focused on fiscal outcomes pertaining to the distribution of resources among school districts. A parallel set of arguments applies to the distribution of tax burdens among taxpayers.

The most straightforward measure of tax burdens is the local property tax levied for education. But, some argue, the important issue is the school taxes individuals pay relative to their incomes. Adjustments for differences in incomes are needed, in this view, to accurately portray the distribution of tax burdens.

While this argument has merit, the practical problems of adjusting for income differences are insurmountable. In theory, a part of the property tax levied on commercial and industrial properties is borne by the owners and the remainder is passed on to renters and consumers. But research has yet to measure the burdens of owners vis-a-vis renters and consumers. Consequently, whose incomes should be related to what degrees to property tax burdens remains an unanswered question.

Many states permit school districts to levy several different taxes in support of current operations, capital outlay and debt service, and various special funds. Is the sum of all local levies the central interest, or only the taxes levied for certain purposes? The issue exactly parallels the problem of including or excluding revenues (or expenditures) for certain purposes.

#### FISCAL NEUTRALITY

The concept of fiscal neutrality focuses on districts' access to revenues. A school finance system is said to be fiscally neutral if each district's funding per pupil (possibly adjusted for cost and need differentials) depends solely on its fiscal efforts and is independent of its wealth or ability to pay. Note that neutrality does not require equality in funding (or adjusted funding) per pupil. Rather it requires that any district be able to obtain the same (adjusted) funding per pupil as any other district provided only that it put forth the same effort.

It is generally agreed that equity requires fiscal neutrality. A system which results in equal (adjusted) funding per pupil but places unequal fiscal burdens on local districts is clearly inequitable. And to many reform advocates, fiscal neutrality is sufficient for

equity. That is, equity is satisfied if all districts have an equal opportunity to obtain funds regardless of the extent to which they take advantage of their opportunities. District power-equalizing (DPE) plans, for example, derive from this concept of equity. And, from this point of view, fiscal neutrality itself becomes the equalization target.

Practical application of fiscal neutrality raises the question of how "ability to pay" or "fiscal effort" or "wealth" is to be defined. In its early days, the reform movement focused on the relationship between a district's funding and its tax base. The local school property tax rate came to be equated with effort, and "wealth" was the property tax base per pupil. Operationally, fiscal neutrality came to mean that pupil support could (in fact, should) vary with the property tax rate, but not with the property tax base. As the finance debate matured, however, the original definitions of fiscal effort and wealth have been questioned and new definitions proposed. A natural extension is to define both wealth and effort more comprehensively. Kansas, for example, includes income in the definition of wealth and defines effort in terms of local school revenues relative to income plus property tax base.

An important conceptual distinction needs to be made between ex ante and ex post definitions of fiscal neutrality. Ex ante neutrality exists where a given level of fiscal effort provides the same per-pupil revenue to each district regardless of local wealth, as under a pure district power-equalizing formula. Ex post neutrality exists where actual per-pupil spending and wealth are uncorrelated.

The two concepts of fiscal neutrality are not equivalent and systems which satisfy one may fail to satisfy the other. Suppose, for example, that high-wealth communities are more willing to tax themselves for the schools even when they are not permitted to take advantage of their greater ability to raise revenues at a given tax rate (perhaps because people who choose to live in such communities have relatively high tastes for education vis-a-vis private and other public goods and services, or because they enjoyed high levels of

per-pupil school support prior to reform and are unwilling or unable to revise school budgets downward). In an ex ante fiscally neutral system (e.g., a pure DPE system), such communities would impose greater tax burdens on themselves and, thereby, obtain greater per-pupil funding for their schools. The resulting correlation between wealth and per-pupil support would violate ex post fiscal neutrality even though it emerged from an ex ante fiscally neutral system. Conversely, suppose that people, regardless of where they lived, generally agreed on the "right" amount of per-pupil support for the schools and were both willing to exert whatever efforts were needed to provide that amount of support and unwilling to exert themselves much beyond that point. In a flat-grant system, or a foundation system which set the foundation well below the agreed support level, high-wealth communities would levy low tax rates while lower-wealth communities levied higher tax rates. All communities would thereby end up with about the same level of per-pupil funding and the correlation between funding and wealth might be negligible. Thus, ex post fiscal neutrality would be satisfied even though the system clearly violated ex ante fiscal neutrality.

#### VARIABLES OF INTEREST

To accommodate the disparate views of the proper objective of reform, we examine the effects of each state's reform on several measures of current revenues per pupil, on instructional expenditures per pupil, and on local property taxes levied for education.

#### Current Revenue Per Pupil

We examine only current per pupil revenues and entirely disregard capital outlays and debt service. Because variations in access to revenues, however measured, are the central issue, we believe that variations in current revenues are more meaningful than variations in current expenditures. This choice also reflects the lack of adequate procedures, and data, for addressing capital disparities.

States often require that districts segregate earmarked revenues in separate accounts. These typically include aid from federal and state categorical programs and local revenues derived from special property taxes. Although these funds may be used only for the specified purpose, they nonetheless contribute to the support of current operations. Accordingly, we aggregate over all accounts (other than capital outlay and debt service) in computing current revenues per pupil.

We examine five alternative measures of current revenues, exclusive and inclusive of receipts from various categorical programs. Hopefully, readers with different views of what should be equalized will find one of these measures compatible with their values. This also allows us to assess the consequences of evaluating equalization outcomes from more than one perspective. Finally, the use of alternative measures will permit comparison of our results with those obtained in other studies.

The measures are:

General Revenue Per Pupil. The sum of local revenue, intermediate revenue (e.g., from a county), and state noncategorical revenue comprises general revenue per pupil. We net out all state program support, even if included in the state's basic aid formula, and include all noncategorical state aid, even if distributed independently of basic aid. This variable indicates the amount of (non-federal) funds available to the district which can be spent entirely at the district's discretion.

General + PL874 Revenue Per Pupil. The federal Impact Aid program (PL874) distributes funds to districts that are heavily affected by the presence of federal installations and employees within its boundaries. The program's ostensible purpose is to compensate districts for the burden of educating the children of families who work, and often live, on tax-exempt property. Although a categorical aid program, the funds it provides can be viewed as substituting for "lost" local revenues. And two of the states we study, Kansas and New Mexico, explicitly adopt this view, adjusting state general aid



for a district's PL874 receipts. This variable includes local, intermediate, state noncategorical, and federal PL874 revenue. It indicates the total amount of discretionary funds per pupil that is available to each district.

Local + State Revenue Per Pupil. Our third current revenue variable is the sum of all nonfederal revenue per pupil. It includes all revenue from local, intermediate, and state sources. All revenue from federal sources, including federal aid channeled through states (e.g., aid provided through the Elementary and Secondary Education Act, PL89-10), are excluded.

Local + State + PL874 Revenue Per Pupil. Aside from Impact Aid, all major (and most minor) federal aid programs regulate districts' uses of federal funds. This variable, the sum of all nonfederal revenues plus Impact Aid per pupil, corresponds to the amount of per-pupil funds available to a district which are not constrained by federal regulation.\*

Total Revenue Per Pupil. The fifth revenue variable is total current revenue per pupil from all sources--local, intermediate, state, and federal.

#### Instructional Expenditures Per Pupil

More than 40 percent of the schools' total revenue is used to support activities other than instruction. Administration, plant operation and maintenance, capital outlay, debt service, and other activities must be supported if the schools are to function. Nonetheless, the schools' primary purpose is education, and the central purpose of reform efforts is to rectify disparities in the quality of education offered to students living in different districts. From this perspective, the effects of reform on disparities in instructional expenditures are a major concern.

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\* Federal programs do constrain districts' uses of nonfederal funds to the extent that supplementation, maintenance of effort, and similar regulations limit a district's ability to shift local revenues away from the activities or pupils to which federal aid is targeted.

The sixth variable we examine is instructional expenditures per pupil--the sum of direct expenditures for instruction, and expenditures for instructional support services, including pupil personnel, instructional media, instructional and curriculum development, and instructional staff development and training.

#### Adjusted Tax Rates

Discussions of school finance inequalities generally express the issue in the context of educational equity, but the issue can equally well be posed in terms of tax equity. That is, taxpayers are treated inequitably when the tax burdens they must shoulder to provide a given level of education to their communities' children depend on where they live. Advocates of fiscal neutrality as the equalization objective essentially adopt this position in that they consider inequalities in revenues perfectly acceptable so long as they result from inequalities in the tax burdens communities choose to bear.

We examine the effects of each state's reform on the distribution of adjusted local property tax rates. The variable is the sum of all local and intermediate property tax rates whose levies support the schools' current operations times the ratio of assessed value to market values. It includes the general (or operational) fund tax rate and any special fund current account tax rates (e.g., for a Social Security fund) and excludes capital outlay and debt service tax rates. To facilitate interstate comparisons, we convert nominal tax rates--which are levied on assessed values--to the rate effectively levied on market value. District-specific ratios of assessed to market values are used where available; otherwise, we use statewide ratios.

Tax rates are expressed in mills, tenths of a percent.

#### WEIGHTS

We were, and are, inclined to the view that the student is the appropriate unit of analysis. However, we recognized that interdistrict disparities are also of interest and computed each of our measures twice, first learning the values unweighted, and then weighting

the value of a variable in each district by its size. We concentrate on the pupil-weighted results in our analysis. Both sets of results are presented in Appendix A; the reader interested in the effects of reform on districts (as opposed to students) will find the relevant measures there.

#### MEASURES OF DISTRIBUTIONAL EQUALITY

The reduction of disparities in the distribution of per-pupil revenues (or expenditures) has been one of the principal objectives of the school finance reform movement. The alternative objectives--reducing disparities in the cost-adjusted or the pupil-need-adjusted distribution of per-pupil revenues (or expenditures)--have conceptual appeal. But we presently have neither cost-of-education indices nor the methods and data required to construct them. Nor do we have the means for assessing pupils' needs in ways that translate into revenue or expenditure requirements. Accordingly, this analysis focuses on the degree to which reform has brought about greater equality in per-pupil spending or receipts.

We use two measures of the degree of distributional equality achieved by a state's school finance system: the *coefficient of variation* and the *relative deviation from the median*. The former is the standard deviation divided by the mean, while the latter is the average (mean) absolute deviation from the median divided by the median. The coefficient of variation can be intuitively interpreted as follows: A value of, say, .20 means that about one-sixth of the students attend districts in which revenues (instructional expenditures, tax rates) are 20 percent or more above the mean and about one-sixth attend districts in which revenues (instructional expenditures, tax rates) are at least 20 percent below the mean. Roughly two-thirds of the students attend districts in which the variable of interest is within 20 percent of the mean. The relative deviation from the median equals half the difference between the average revenues (instructional expenditures, tax rates) for pupils above the median and the average revenues for below-median pupils, expressed as

a percent of the median. It is thus the percent by which statewide per pupil revenues would have to be increased to raise all below-median pupils' revenues to the average achieved by pupils above the median. A relative deviation from the median of, say, .20 means that above-median pupils average 40 percent greater revenues than below-median pupils; or, the cost of raising all below-median pupils to the average revenues of above-median pupils would be 20 percent of statewide average per-pupil revenues.

Reductions in either measure signal a move toward greater equality.

Previous studies have used several other measures to summarize the distributional effects of a school finance plan.<sup>1</sup> Many of these measures are redundant in that they provide essentially the same information as that provided by the coefficient of variation and relative deviation from the median. Nonetheless, participants in the reform debate and researchers interested in the consequences of school finance plans seem to find different measures useful. To facilitate comparison of our results with those obtained in other studies, and to serve the purposes of readers familiar with different measures, we computed most of the other distributional measures that have appeared in the literature; Appendix A provides the following measures for each state for each year, both unweighted and weighted by districts' sizes:

Percentiles. We ranked the districts according to the variable of interest and listed the value of the variable for the 100th (highest), 95th, 75th, 50th (median), 25th, 5th, and 1st (lowest) percentile district. When the percentile fell between two districts, we used the average of their values.

Range. The difference between the values of a variable in the highest and the lowest districts.

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<sup>1</sup>Berne (1978) analyzes numerous measures of expenditure equality and fiscal neutrality.

Restricted Range. The difference between the values of a variable at the 95th and the 5th percentiles. It is less sensitive than the range to extreme values.

Restricted Range Ratio. The restricted range divided by the value of the variable at the 5th percentile. The measure is also known as the Federal Range Ratio. It is the number of times the variable at the 95th percentile is larger than at the 5th percentile.

Mean Deviation from the Median. The average (mean) absolute deviation from the median.

Relative Mean Deviation from the Median. The mean absolute deviation from the median divided by the median.

Mean. The sum of the values of the variable over the districts divided by the number of districts.

Standard Deviation. The square root of the sum of the squared differences between the value of the variable in each district and the mean, divided by the number of districts minus one.

Coefficient of Variation. The standard deviation divided by the mean.

Mean Deviation from Mean. The average (mean) absolute deviation between the value of the variable in each district and the mean.

Relative Mean Deviation from Mean. The mean absolute deviation from mean divided by the mean.

Gini Coefficient. A Lorenz curve shows the cumulative proportion of the aggregate value of a variable plotted against the cumulative proportion of districts, when districts are ranked in ascending order by the variable. It is a straight line, with a positive 45-degree slope, bisecting a unit square, if the variable has the same value in every district. If the variable is not equally distributed across districts, the curve will "sag" below the 45-degree line. The Gini coefficient is one half the area between the Lorenz curve and the 45-degree line.

#### MEASURES OF FISCAL NEUTRALITY

The school finance reform movement grew out of a concern for the distribution of revenues or spending among children of various income levels. It was thought that poor children generally received fewer school resources than did children from better-off families, and this presumed disparity motivated the early reform efforts. It was also widely assumed that poor children received fewer resources because they lived in low-value housing, and consequently that the school districts they attended had low property tax bases. Thus, eliminating the link between districts' revenues and their property tax bases became the focus of reform efforts. The California Supreme Court, in the *Serrano* decision, accepted the argument and interpreted it as requiring that there be no correlation between districts' revenues and their property tax bases. This notion of fiscal neutrality is now generally accepted.

In the meanwhile, research has shown that, in many states, disproportionate numbers of poor children do not live in property-poor districts. Commercial and industrial property accounts for a large share of many districts' tax base; this is particularly true of the central city districts. And poor families are more likely than better-off families to live near commercial centers and industrial facilities and in the central cities. Thus, reforms which break the link between a district's revenues and its property tax base will not, in general, improve the relative condition of poor children. That is not to say such reforms are meaningless or irrelevant, but they fail to address the issue of the degree to which a district's revenues depend on the income level of the population it serves.

The distinction between ex ante and ex post wealth neutrality is also troublesome. Feldstein (1975) has shown that an ex ante fiscally neutral system will not, in general, yield ex post fiscal neutrality. Thus, finance systems which guarantee that districts' revenues will depend only on their fiscal efforts will generally result in districts' revenues being correlated with their tax bases. And finance systems which achieve ex post fiscal neutrality (i.e., a negligible correlation

between districts' revenues and tax bases) must offer different rewards to districts which exert similar efforts.

Against this background, we explore the effects of each state's reform on three different concepts of fiscal neutrality. The first corresponds to the currently popular notion that fiscal neutrality requires *ex post* independence between districts' revenues or expenditures and their property tax bases. We regress each of the variables of interest (the per-pupil revenue measures, instructional expenditures per pupil, and the adjusted tax rate) on the adjusted (to market value) property tax base per pupil and the square of the adjusted property tax base per pupil. We use the implied *elasticity* of the variable with respect to wealth (calculated at the mean) as the indicator of the magnitude to which the variable of interest is associated with a district's wealth.

Second, we regress each variable of interest on household income (of the population served by the district) per pupil and the square of household income per pupil. The implied elasticity indicates the magnitude of the relationship between the variable and per-pupil household income. This part of the analysis responds to the concerns which originally motivated school finance reform efforts.

Finally, to explore the *ex ante* fiscal neutrality of a state's finance plan, we regress each variable of interest (except the adjusted tax rate) on the adjusted tax rate and the adjusted tax rate squared. If we accept the adjusted tax rate as a measure of fiscal effort, a greater magnitude of association between a revenue or expenditure variable and (the quadratic form of) the adjusted tax rate implies a more *ex ante* fiscally neutral system. The elasticities of these regressions indicate the extent to which a district's revenues or expenditures depend on its effort.

We also computed several other measures of fiscal neutrality that have been used in other studies. Appendix A provides the following measures, unweighted and weighted by districts' sizes, for each state in each year:

Regression on Adjusted Wealth. We regress the variable of interest on assessed value per pupil (in thousands) adjusted to market value per pupil. (We use the same factor for each district that was used to adjust its expressed property tax rate to the effective rate levied on the market value of property.) We also regress the variable on adjusted wealth per pupil and adjusted per-pupil wealth squared.\* We obtain two measures of fiscal neutrality from each regression: The F-Statistic for the regression is an indicator of "goodness-of-fit"--the degree to which the variable is related to adjusted value. A higher F-statistic indicates a higher probability that the observed relationship between the variable, the adjusted per pupil wealth, is nonrandom. The elasticity shows the nature of the estimated relationship between the variable and adjusted wealth per pupil. It is the estimated percentage change in the variable that, at the mean, is associated with a one-percent change in adjusted per pupil wealth.

Regression on Income. We regress the variable of interest on household income per pupil and on household income per pupil squared, and obtain the F-statistic and elasticity at the mean for each regression.

Regression on Adjusted Tax Rate. We regress the variable of interest on the adjusted tax rate and on the adjusted tax rate and adjusted tax rate squared, and obtain the F-statistic and elasticity at the mean for each regression.

Mean for Adjusted Wealth Decile. The districts are ranked by adjusted wealth per pupil and divided into deciles. We compute the mean of the variable of interest for the districts in each decile.

Mean for Income Decile. We rank the districts by per-pupil household income, divide them into deciles, and compute the mean of the variable of interest for the districts in each decile.

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\* We also tried a cubic regression of the variable on adjusted wealth, but we dropped the exercise because, in some cases, the results seemed unduly sensitive to extreme values.



Correlations. We compute the simple correlation between each variable of interest and adjusted per-pupil wealth, household income per pupil, and the adjusted tax rate.

Gini by Adjusted Wealth Distribution. The Gini coefficient for the Lorenz curve, where districts are ranked in ascending order by the variable of interest per adjusted wealth per pupil and the cumulative value of the variable, is plotted against cumulative adjusted wealth per pupil.

Gini by Income Distribution. The Gini coefficient for the Lorenz Curve is obtained by plotting the cumulative value of the variable of interest against cumulative household income per pupil, when districts are ranked in ascending order by the ratio of the variable to household income per pupil.

#### WINNERS AND LOSERS

If reform is to reshape the distribution of revenues or expenditures among a state's districts, some districts must receive disproportionately large increases (or decreases) in their revenues. Whether one type of district gains or loses relative to other types of districts is not, itself, a reform issue; but policymakers' and citizens' expectations regarding a reform's likely winners and losers certainly affect their evaluation of the reform and willingness to support it. Further, the unanticipated consequences of reform for certain types of districts may be important. For these reasons, we explored the effects of reform on various types of districts.

Previous studies and policy debates suggest many categories of districts that appear to be of special concern. However, we often lacked the data required to so categorize the districts in our five states. We eventually settled on four district characteristics: size, percent of the district's population residing in urban areas, percent of the district's population who are white, and percent of the district's population whose household incomes are below the poverty level. These were characteristics that seemed to be of policy concern and for which we had data in the five states. In

each case, we ranked the students (weighted districts) in a state according to their district's characteristic and computed the means for each variable of interest for the students below and above the median on that characteristic. We used the ratio of the mean for the below-median students to the mean for the above-median students as an indicator of the way students attending various types of districts fared, given their state's finance system.

Suppose, for example, that in some state the ratio of mean general revenue per pupil for students below the median in percent urban to the mean general revenue per pupil for students above the median is 0.92. This means that the lower half of the state's students ranked by the percent urban of the district they attend averages about 92 percent of the general revenues per pupil received by the upper half of the state's students. The state's finance plan is operating to the relative benefit of students attending the more urban districts. If that ratio pertained to a pre-reform year and the comparable post-reform number were 0.95, we would infer that reform has directed relatively greater amounts of general revenue to students attending the less urban districts. And, while the reform plan still operates to the relative benefit of the more urban students, the less urban students are the beneficiaries of reform (in the sense that they gained on their more urban counterparts).

The unweighted counterpart of this ratio is obtained by dividing districts, unweighted, at the median of a district characteristic and taking the ratio of the unweighted mean for the above-median districts to the unweighted mean for the below-median districts.

Appendix A presents the unweighted (weighted) means for each variable of interest in each state in each year for districts (students) above and below the median on each characteristic. It also presents unweighted and weighted correlations between each variable of interest and each characteristic.

#### DATA

We obtained data on districts' revenues, tax rates, wealth, and number of pupils from state sources. These data are described in the

state-by-state discussions below. Data on household income, percent urban, percent white, and percent poverty were obtained from 1970 Census fifth-count information compiled to 1974 school district boundaries. We use the Census definitions of household income, urbanity, race, and poverty level.

In computing any measure for any variable, we include all the districts in a state for which data were available. The measures pertaining to the distributions of the variables of interest or to the relationships between them and size, adjusted wealth, or adjusted tax rates are generally computed over every district in the state. There are, however, a few cases where in some year the data required to calculate one or another of our variables for a district were missing or were clearly erroneous and correct information could not be obtained. That district is dropped in calculating the measures for that variable in that year. It is included, however, in calculating the measures of other variables (if the data were available) in that year and of that variable (if the data were available) in other years.

The measures relating our variables to income, urbanity, race, and poverty are computed over all districts which could be matched to the Census data. As the Census data were not compiled for districts serving fewer than 300 pupils in 1970, small districts are generally excluded from measures relating variables to Census data. There were also a few larger districts in each state which could not be matched to the Census file. They, too, were dropped in computing the measures involving income, urbanity, race, and poverty.

Districts which consolidated were treated as independent entities prior to their merger and as a single entity after. We made no attempts to "create" consolidated districts in pre-merger years or to partition consolidated districts after their merger.

### Chapter 3

#### THE EFFECTS OF REFORM IN CALIFORNIA

In this chapter, we review California's pre- and post-reform school finance systems. We then describe the data available for the analysis and the definitions of the variables of interest. Because California's finance systems, both before and after reform, treat elementary, high school, and unified districts differently, we separately examine the effects of reform on each type of district. In each case we identify the effects of reform on the distributions of revenues per pupil, instructional expenditures per pupil, and adjusted tax rates; we estimate the degree to which reform has contributed to fiscal neutrality; and we describe the relative benefits and losses accruing to various kinds of districts as a result of reform. The chapter ends with our conclusions regarding the effects of reform in California.

#### SCHOOL FINANCE IN CALIFORNIA

The California school finance reform was passed late in 1972 and modified in the summer of 1973, just before it took effect. The reform was part of a larger reform package (Senate Bill 90) affecting all local governments. For school districts, reform basically amounted to a substantial increase in the foundation programs coupled with the imposition of revenue limits. The state attempted to equalize districts' general revenues by substantially increasing state support and limiting revenue growth in the high-spending districts so that lower-spending districts could catch up.

#### The Pre-Reform System

Prior to reform, California provided general support to the schools through three programs. The Basic Aid program provided flat

grants to every district in the amount of \$125 per pupil, based on average daily attendance (ADA).<sup>1</sup> Equalization Aid was distributed through a foundation program. The amount guaranteed for most districts was \$335 per elementary ADA and \$488 per high school ADA.<sup>2</sup> An additional \$30 was paid per primary (Grades 1-3) ADA. Finally, Supplemental Support of \$125 per ADA less one percent of assessed value was provided to districts where assessed valuation was less than \$12,500 per ADA.

In order to encourage "more efficient organization of schools" (or unification) a \$20 per ADA unification bonus was included in the foundation program. This bonus was paid to unified districts and to districts which voted favorably in an unsuccessful unification election.

The required foundation program participation tax and the foundation program aid were administered on an areawide basis. A property-poor district could be ineligible for equalization aid if it was located in a sufficiently property-rich area. If the area as a whole qualified for equalization aid, the amount of the areawide tax (the foundation program minimum tax) allocated to each district was proportional to its share of the area's total foundation program. Equalization aid distributed to districts was then the difference between the district's foundation program and its receipts from Basic Aid and its share of the areawide tax.<sup>3</sup>

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<sup>1</sup>Districts with an ADA of 19 or less were guaranteed a minimum Basic Aid of \$2400. There were 36 such elementary districts in 1972-1973.

<sup>2</sup>For the smallest elementary schools (under 101 ADA and "necessary") the amount of foundation support was related to the student/teacher ratio. For small school districts not determined to be "necessary," the foundation support level was reduced by \$10 per ADA because the districts were eligible for certain services at no cost from the county.

<sup>3</sup>In the 1972-1973 school year, 329 districts, of which five had an ADA of 19 or less, received only Basic Aid. These were primarily small elementary districts in the state's rural areas.

Inflation factor adjustments were included in 1970, 1971 and 1972. These provided additional funds, for school cost increases, to be distributed to all districts receiving equalization aid. Districts received a share of the additional funds in proportion to their share of the statewide equalized ADA.

#### The Post-Reform System

The reform package left the Basic Aid program unchanged. It boosted foundation support to \$909 per elementary ADA and \$1,094 per high school ADA and repealed supplemental aid for districts with low assessed value per ADA. The unification bonus and support for "necessary" small schools were retained.<sup>1</sup>

To hold down increases in school expenditures, SB90 established revenue limits based on the previous year's revenue per ADA adjusted for inflation. Each year, each district is allowed to increase its noncategorical revenues per ADA by an amount specified by the legislature times its "squeeze factor." A district's squeeze factor is the year's revenue limit.

Each district's revenue limit was translated into a maximum general purpose tax rate (basic aid and equalization aid are subtracted from the revenue limit and the result divided by assessed valuation). A district could levy a higher general purpose tax rate only with the approval of the electorate. Tax override proposals had to specify the time period during which the override would hold; they could be extended beyond the time period only with voter approval.

Aside from the systems for providing general support to school districts, California has a system of state support for pupil-targeted instructional programs, pupil support services, and capital expenditures. The pupil-targeted instructional programs include special

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<sup>1</sup>486 school districts received only Basic Aid in the first year of reform. These were, for the most part, the same small, rural, elementary districts which had received only Basic Aid in the year immediately prior to reform. The remainder were smaller districts (many serving fewer than 100 pupils) which had sizable enrollment changes.

funds over and above the foundation program for physically handicapped, mentally retarded, educationally handicapped, and mentally gifted minors. The state assists districts in the behind-the-wheel driver training program. The Educationally Disadvantaged Youth program provides districts with additional funds for additional programs for poor, transient, and non-English-speaking students on a need basis. The state provides funds for home-to-school transportation to districts up to the level of the median expense statewide.

The immediate impact of reform was a large increase in the state's share of total school revenues. In the 1973-1974 school year, the first affected by reform, the state share of total income was 42 percent, an increase of one-third over what it had been the previous year (31 percent). In succeeding years, however, state funds barely kept pace with the rate of growth in districts' total revenues. Table 1 provides summary data on California school districts and their revenues by source for the 1970-1971 through 1976-1977 school years.

#### DATA AND DEFINITIONS

We obtained data on California districts' sizes (ADA), assessed values, tax rates, expenditures by category, and revenues by source from the *Fiscal Transactions* files maintained by the Bureau of School Apportionments, California State Department of Education. The information is provided by school districts in annual reports (J-41) to the Bureau. The available files covered the 1970-1971 through 1976-1977 school years. The Bureau also provided modified assessed values for each district for the 1971-1972 through 1974-1975 school years. These are assessed values adjusted to equalize assessment ratios across counties. The State Assessor's Office develops the adjustment factors in annual special studies of county assessment ratios. We use the modified assessed values in 1971-1972 through 1974-1975, and the unmodified assessed values in 1970-1971, 1975-1976, and 1976-1977.

California assesses all property at 25 percent of fair market value. We divided nominal tax rates, and multiplied assessed values, by four to convert them to effective tax rates and market values.

Table 1

SUMMARY DATA ON CALIFORNIA ELEMENTARY, HIGH SCHOOL,  
AND UNIFIED DISTRICTS

(Dollar amounts in millions)

Type of District	1970-71	1971-72	1972-73	1973-74	1974-75	1975-76	1976-77
<i>All districts</i>							
Number of districts <sup>a</sup>	1,322	1,326	1,328	1,296	1,270	1,246	1,227
Assessed valuation	\$55,289	\$58,529	\$62,474	\$66,839	\$73,785	\$81,858	\$92,557
Average daily attendance	4,692,295	4,664,034	4,629,135	4,612,621	4,665,615	4,699,266	4,666,780
Revenue							
Federal	225	318	337	318	392	359	427
Combined federal and state	9	9	12	10	8	15	8
State	1,478	1,462	1,536	2,262	2,420	2,689	2,850
County	25	29	34	54	49	43	51
Local	2,364	2,623	3,000	2,780	3,062	3,459	3,872
Total, all sources	4,132	4,441	4,981	5,424	5,931	6,603	7,254
<i>Elementary districts</i>							
Number of districts <sup>a</sup>	917	920	918	884	860	835	818
Assessed valuation	\$17,488	\$18,614	\$20,060	\$20,943	\$23,451	\$29,163	\$29,080
Average daily attendance	1,082,396	1,062,811	1,051,895	1,010,025	983,246	978,328	952,046
Revenue							
Federal	49	60	63	62	75	80	87
Combined federal and state	3	3	4	4	3	3	3
State	350	332	360	515	528	581	623
County	5	6	7	12	11	9	11
Local	458	503	558	526	571	651	715
Total, all sources	865	904	992	1,118	1,188	1,325	1,438
<i>High school districts</i>							
Number of districts <sup>a</sup>	165	164	165	161	157	154	151
Assessed valuation	\$17,480	\$18,605	\$20,051	\$20,931	\$23,438	\$26,151	\$29,067
Average daily attendance	525,444	533,965	542,612	544,403	559,589	577,505	579,733
Revenue							
Federal	26	30	31	31	36	40	45
Combined federal and state	0	1	0	1	0	0	0
State	161	160	175	255	262	296	324
County	4	5	6	9	8	8	10
Local	357	393	442	406	444	506	558
Total, all sources	548	588	654	702	750	850	936
<i>Unified districts</i>							
Number of districts <sup>a</sup>	240	242	245	251	253	254	258
Assessed valuation	\$37,802	\$39,915	\$42,414	\$45,896	\$50,335	\$55,695	\$63,477
Average daily attendance	3,084,455	3,067,358	3,034,628	3,058,193	3,122,780	3,143,433	3,135,001
Revenue							
Federal	180	228	244	224	281	279	295
Combined federal and state	6	6	8	6	5	12	5
State	967	970	1,000	1,492	1,630	1,811	1,949
County	16	19	21	34	30	27	31
Local	1,549	1,726	2,000	1,847	2,047	2,300	2,599
Total, all sources	2,719	2,948	3,273	3,604	3,993	4,428	4,878



Table 2 shows, for each year, the numbers of California districts and students for which we had only finance data and the numbers of each for which we had both finance and Census data.

General revenues per pupil is the sum of all local, county, and state noncategorical revenues. It includes basic aid, equalization aid, the unification bonus, support for necessary small schools, the bonus for primary ADA (Grades 1-3) and, in the pre-reform years, supplemental support for districts with low assessed value per pupil. The other revenue variables are self-explanatory. Prior to 1974-1975, the schools' accounting system included an instructional expenditure category. The category was eliminated when the accounting system was revised in 1974-1975. We used the categorical total for the first four years and, for the last three, estimated instructional expenditures by aggregating the detailed accounts that had been included in the expenditure category in the old system.

California's pre- and post-reform plans specify different foundation levels for elementary, high school, and unified districts. The parameters used to calculate revenue limits also vary by district type. In essence, California operates three different school finance systems, one for each type of district. We separately analyze the effects of reform for each type of district.

#### ELEMENTARY SCHOOL DISTRICTS

##### The Distributions of Revenues, Instructional Expenditures, and Adjusted Tax Rates

Table 3 presents the mean, coefficient of variation, median, and relative deviation from the median for the distributions of revenues per pupil at five levels of aggregation, instructional expenditures per pupil, and adjusted tax rates.

General Revenues per Pupil. General revenues per pupil grew by about 5 percent between 1970 and 1971 and by about 11 percent between 1971 and 1972. They increased 16 percent in 1973, 8 percent in 1974, and 11 percent in 1975 and 1976. The coefficient of variation declined with the introduction of reform in 1973 and continued to fall thereafter,

Table 2

NUMBERS OF CALIFORNIA DISTRICTS AND STUDENTS

Year and Type of District	Finance Data Available <sup>a</sup>		Finance and Census Data Available	
	No. of Districts <sup>b</sup>	No. of Students	No. of Districts	No. of Students
Elementary				
1970-71	711	1,082,396	366	1,009,363
1971-72	707	1,062,811	364	987,547
1972-73	705	1,051,895	364	974,360
1973-74	687	1,010,025	364	961,191
1974-75	678	981,355	359	931,627
1975-76	676	978,328	359	927,389
1976-77	669	952,046	356	900,147
High School				
1970-71	118	525,444	107	511,768
1971-72	117	533,965	107	522,960
1972-73	117	542,612	107	530,468
1973-74	114	544,403	106	542,586
1974-75	114	559,589	106	557,711
1975-76	114	577,505	106	575,494
1976-77	115	579,733	106	577,209
Unified				
1970-71	240	3,084,455	227	3,057,119
1971-72	242	3,066,881	228	3,035,359
1972-73	244	3,034,628	232	3,007,277
1973-74	251	3,058,193	238	3,022,392
1974-75	248	3,095,609	234	3,031,062
1975-76	254	3,143,433	238	3,075,720
1976-77	258	3,135,001	238	3,055,590

<sup>a</sup> Finance data are available for all districts and students in all years with the following exceptions: One high school district serving 377 students is missing in 1971 and five unified districts serving 27,171 students are missing in 1974.

<sup>b</sup> California's unification procedure occasionally results in "operating" districts that have no students; such districts are excluded.

Table 3

MEASURES OF THE DISTRIBUTIONS OF REVENUES, INSTRUCTIONAL  
EXPENDITURES, AND ADJUSTED TAX RATES:  
CALIFORNIA ELEMENTARY DISTRICTS, 1970-1976

Measure	Year						
	1970 -71	1971 -72	1972 -73	1973 -74	1974 -75	1975 -76	1976 -77
General revenue:							
Mean	729	763	845	984	1060	1181	1308
Coefficient of variation	.23	.24	.22	.21	.20	.19	.18
Median	681	717	800	930	983	1115	1254
Relative deviation	.16	.17	.15	.14	.14	.13	.12
General + PL874 revenue:							
Mean	745	780	860	999	1076	1196	1327
Coefficient of variation	.22	.23	.22	.21	.20	.18	.18
Median	701	732	812	941	996	1129	1258
Relative deviation	.15	.16	.15	.14	.14	.13	.12
Local + state revenue:							
Mean	778	818	907	1072	1169	1310	1463
Coefficient of variation	.22	.23	.22	.20	.19	.17	.16
Median	730	774	856	1008	1097	1267	1411
Relative deviation	.15	.16	.15	.14	.13	.12	.12
Local + state + PL874 revenue:							
Mean	794	835	923	1087	1185	1325	1482
Coefficient of variation	.21	.22	.21	.20	.18	.17	.16
Median	745	797	874	1018	1111	1276	1442
Relative deviation	.15	.15	.15	.14	.13	.12	.11
Total revenue:							
Mean	832	886	982	1151	1268	1420	1586
Coefficient of variation	.20	.20	.20	.19	.18	.17	.16
Median	803	848	932	1097	1218	1386	1554
Relative deviation	.13	.14	.14	.14	.13	.12	.11
Instructional expenditures:							
Mean	553	591	634	717	684	746	821
Coefficient of variation	.17	.17	.17	.16	.18	.16	.15
Median	545	576	613	699	663	728	798
Relative deviation	.12	.12	.13	.12	.12	.11	.11
Adjusted tax rates:							
Mean	7.2	7.4	7.6	6.7	6.7	7.0	6.9
Coefficient of variation	.22	.23	.23	.22	.17	.17	.17
Median	7.0	7.3	7.8	6.6	6.7	6.8	6.7
Relative deviation	.19	.19	.19	.17	.13	.13	.13

NOTE: All revenue measures and instructional expenditures are dollars per pupil. Adjusted tax rates are mills.

albeit slowly. By 1976, the coefficient of variation was about 22 percent below its pre-reform average. The relative deviation from the median began to decline prior to reform, from .17 in 1971 to .15 in 1972. It declined further between 1973 and 1976. In all, reform has reduced disparities in general revenues per pupil.

General Plus PL874 Revenues Per Pupil. PL874 revenues accruing to elementary school districts averaged \$15 to \$20 per pupil in each year between 1970 and 1976. Funding from this program had a slightly equalizing effect in 1970 and 1971; both the coefficient of variation and relative deviation from the median were lower for general plus PL874 revenues per pupil than for general revenues per pupil in those years. Since then, however, PL874 revenues have not had an impact on the distribution of revenues per pupil in California.

Local Plus State Revenues Per Pupil. Local plus state revenues per pupil equals the sum of general revenues per pupil and state categorical revenues per pupil. Thus, the difference between the results shown for this variable and those shown for general revenues per pupil indicate the effects of state categorical programs. These programs grew substantially between 1970, when they provided an average of \$50 per pupil in elementary districts, and 1976, when they provided about \$155. Since reform, the state's categorical programs have had an equalizing effect on the distribution of revenues among pupils in California's elementary districts. Between 1973 and 1976, the coefficient of variation and the relative deviation from the median for general revenues per pupil were somewhat higher than the corresponding measures for local plus state revenues per pupil.

Local Plus State Plus PL874 Revenues Per Pupil. PL874 revenues per pupil in California's elementary districts have not substantially affected the distribution of revenues among pupils in California's elementary districts.

Total Revenues Per Pupil. Total revenues per pupil is obtained by adding federal categorical revenues per pupil to local plus state plus PL874 revenues per pupil. California's elementary districts have received substantial federal categorical revenues per pupil:

about \$40 per pupil in 1970, growing to over \$100 by 1976. The distribution of these funds appears to have had a slight equalizing effect prior to reform. However, that effect largely disappears after reform. Both the coefficient of variation and the relative deviation from the median for total revenues per pupil are lower in the pre-reform years than are the corresponding measures for the other revenue variables. In the post-reform years, however, the coefficient of variation and the relative deviation from the median for total revenue per pupil are approximately equal to the comparable measures for the other revenue variables.

The aggregate effect of categorical programs, both federal and state, is suggested by a comparison of the results shown for general plus PL874 revenues per pupil and for total revenues per pupil. The former includes general aid revenues from all sources, while the latter includes both general aid from all sources and categorical revenues from all sources. In principle, categorical programs are designed to provide additional funds to selected categories of students (e.g., more expensive-to-educate students or students engaged in more expensive programs). No such public purpose is served by inequalities in general revenues per pupil. Accordingly, one would expect to observe greater equality in the distribution of general plus PL874 revenues per pupil than is observed in the distribution of total revenues per pupil. In California elementary districts, however, we see precisely the reverse result. Both before and after reform, the coefficient of variation for general plus PL874 revenues per pupil is about 10 percent greater than for total revenues per pupil. Approximately the same relation holds in comparing the relative deviation from the median for the two variables in any given year, though the differences between them are not as dramatic in the post-reform years. In other words, state and federal categorical programs seem to be distributing funds in a way which equalizes disparities in general revenues per pupil.

Instructional Expenditures Per Pupil. Prior to reform, instructional expenditures per pupil were more equally distributed than were

revenues per pupil. Reform has slightly reduced disparities in instructional expenditures per pupil. The coefficients of variation in post-reform years are a point or two lower than the coefficients of variation for the pre-reform years. The relative deviation from the median is also slightly lower in the last two years than it had been before reform.

It is interesting to note that both the coefficients of variation and the relative deviations from the median for the distributions of instructional expenditures per pupil are smaller than those for the distributions of revenues per pupil. It appears that districts whose revenues are relatively high allocate a relatively large share of those revenues to noninstructional purposes. Furthermore, when variation in per-pupil revenues declined, there were smaller declines in the variation of instructional expenditures. This suggests that when reform resulted in substantial increases in a previously low-spending district's revenues, the district tended to put those funds to noninstructional uses. These results are consistent with previous studies of school districts' expenditure behavior (Alexander, 1974; Barro and Carroll, 1975; Carroll, 1976) which found that as districts' per-pupil budgets increase, they allocate decreasing proportions of their budgets to expenditures for teachers.

Taken together, these observations suggest the following hypothesis: School districts generally agree on what constitutes an acceptable instructional program and exert every effort to provide one. In doing so, low-revenue-per-pupil districts make do with disproportionately few noninstructional resources. Districts with higher revenue per pupil provide a somewhat better instructional program, but devote much larger shares of their budgets to noninstructional purposes. Similarly, when a previous low-revenue district's budget is increased, it provides a somewhat improved instructional program, but devotes a much larger share of its additional revenues to "catching up" in terms of non-instructional expenditures.

Adjusted Tax Rates. Adjusted tax rates, which had been growing at a rate of about one-fifth of a mill per year prior to reform,

dropped sharply with reform. At the same time, reform has brought about substantially greater equality in the distribution of adjusted tax rates. Both distributional measures were roughly constant prior to reform, dropped in the first year of reform, and then dropped even more sharply in subsequent years.

#### Wealth, Income, and Tax Neutrality

Table 4 shows the elasticity (at the mean) for each variable of interest (the five per-pupil revenue measures, instructional expenditures per pupil, and adjusted tax rates) with respect to adjusted wealth per pupil, household income per pupil, and adjusted tax rates. The measure is an indicator of the percentage change in the variable that, on average, is associated with a one-percent change in wealth, income, or tax rates.

Revenues Per Pupil. The elasticity of each revenue measure with respect to wealth declined in the post-reform years. The percentage increase in per-pupil revenues associated with a one-percent increase in wealth fell by about one-third between 1972, the last pre-reform year, and 1976. The elasticities of the revenue variables with respect to household income exhibit a similar pattern. In 1976 the average percentage increase in revenues associated with a one-percent increase in household income was about 70 percent of what it had been in 1972. In general, reform has substantially improved the ex post wealth neutrality and income neutrality of the distributions of revenues among California's elementary districts.

The elasticity of revenues with respect to the adjusted tax rate jumped sharply in the first two reform years, but then fell back to pre-reform levels in 1975 and 1976. The tax effort exerted by a district is no more closely associated with its per-pupil revenues after reform than it had been before. There is no improvement in ex ante fiscal neutrality.

Instructional Expenditures Per Pupil. Reform has had little effect on the relationship between instructional expenditures per pupil and either wealth or income. And the elasticity of per-pupil

Table 4

ELASTICITIES OF REVENUES, INSTRUCTIONAL EXPENDITURES,  
AND ADJUSTED TAX RATES WITH RESPECT TO ADJUSTED  
WEALTH, HOUSEHOLD INCOME, AND ADJUSTED TAX RATES:  
CALIFORNIA ELEMENTARY DISTRICTS, 1970-1976

Dependent/Independent Variable	Year						
	1970 -71	1971 -72	1972 -73	1973 -74	1974 -75	1975 -76	1976 -77
General revenue:							
Adjusted wealth	.210	.229	.225	.212	.188	.156	.154
Household income	.210	.216	.210	.207	.196	.170	.158
Adjusted tax rate	.238	.211	.199	.492	.457	.222	.215
General + PL874 revenue:							
Adjusted wealth	.195	.214	.214	.202	.180	.150	.148
Household income	.197	.199	.198	.197	.185	.160	.149
Adjusted tax rate	.167	.138	.135	.434	.385	.159	.138
Local + state revenue:							
Adjusted wealth	.195	.213	.208	.188	.164	.136	.131
Household income	.198	.205	.199	.187	.170	.149	.140
Adjusted tax rate	.243	.214	.208	.472	.457	.240	.227
Local + state + PL874 revenue:							
Adjusted wealth	.182	.199	.198	.180	.157	.131	.126
Household income	.186	.190	.187	.177	.161	.141	.133
Adjusted tax rate	.176	.147	.148	.418	.392	.183	.158
Total revenue:							
Adjusted wealth	.166	.177	.175	.159	.138	.112	.110
Household income	.160	.157	.154	.149	.129	.111	.108
Adjusted tax rate	.139	.113	.124	.383	.378	.175	.144
Instructional expenditures:							
Adjusted wealth	.096	.105	.108	.090	.117	.101	.104
Household income	.145	.146	.152	.135	.136	.126	.124
Adjusted tax rate	.259	.235	.257	.422	.300	.073	.029
Adjusted tax rates:							
Adjusted wealth	-.082	-.098	-.114	.021	-.024	-.060	-.065
Household income	-.004	-.021	-.026	.122	.068	.004	-.012



instructional expenditures with respect to the tax rate was dramatically lower in the last two years, 1975 and 1976, than it had been before reform. Among California elementary districts, reform has not improved the wealth or income neutrality of instructional expenditures and has very much worsened that variable's ex ante fiscal neutrality.

Adjusted Tax Rates. Prior to reform, the elasticity of the adjusted tax rate with respect to adjusted wealth per pupil was about -0.1. Thus, wealthier districts enjoyed lower property tax rates, and an increase of one percent in wealth per pupil was associated at the mean with a decrease of about 0.1 percent in the adjusted tax rate. Reform reduced the dependence of wealth per pupil on adjusted tax rates. Household income had been negatively related to the adjusted tax rates prior to reform. The elasticity of the adjusted tax rate with respect to household income per pupil is positive in the first three reform years, suggesting that school districts serving relatively higher-income populations were levying somewhat higher local property taxes for educational purposes in those years. By 1976, however, the elasticity became negative once again.

#### Winners and Losers

Table 5 shows the effects of reform on the distributions of revenues per pupil, instructional expenditures per pupil, and adjusted tax rates between various types of elementary school districts.

Revenues Per Pupil. In terms of general revenues per pupil, the less poverty-prone districts have been the biggest winners. Both before and after reform, general revenues per pupil in the smaller districts were 3 to 7 percent greater than in the larger districts. The more urban districts averaged about 9 percent more general revenue per pupil before reform, but lost relative to their less urban counterparts, averaging only 6 percent greater general revenues per pupil in 1975 and 1976. General revenues per pupil were distributed fairly equally between the more white and the more minority districts, both before and after reform. The districts serving less poverty-prone populations tended to have 17 to 19 percent greater general revenue per pupil before reform compared with districts serving populations

Table 5

DISTRIBUTIONS OF REVENUES, INSTRUCTIONAL EXPENDITURES,  
AND ADJUSTED TAX RATES BY DISTRICT CHARACTERISTICS:  
CALIFORNIA ELEMENTARY DISTRICTS, 1970-1976

District Characteristic	Ratio of Mean for Students Below Median to Mean for Students Above Median						
	1970 -71	1971 -72	1972 -73	Year 1973 -74	1974 -75	1975 -76	1976 -77
General revenue:							
Size	1.03	1.04	1.05	1.04	1.07	1.06	1.04
% urban	0.91	0.92	0.93	0.93	0.95	0.94	0.94
% white	0.99	0.98	1.00	1.00	0.98	1.00	1.01
% poverty	1.17	1.19	1.17	1.11	1.11	1.09	1.10
General + PL874 revenue:							
Size	1.04	1.05	1.06	1.04	1.08	1.07	1.05
% urban	0.93	0.93	0.93	0.94	0.96	0.95	0.96
% white	1.01	1.01	1.02	1.02	1.00	1.01	1.02
% poverty	1.15	1.16	1.15	1.10	1.10	1.08	1.08
Local + state revenue:							
Size	1.03	1.04	1.04	1.03	1.07	1.07	1.04
% urban	0.92	0.92	0.92	0.94	0.96	0.96	0.95
% white	0.99	0.98	1.00	1.01	0.99	1.01	1.01
% poverty	1.16	1.17	1.15	1.08	1.07	1.05	1.06
Local + state + PL874 revenue:							
Size	1.03	1.05	1.05	1.04	1.07	1.07	1.05
% urban	0.93	0.93	0.93	0.94	0.97	0.96	0.96
% white	1.01	1.01	1.02	1.03	1.01	1.02	1.03
% poverty	1.14	1.15	1.13	1.06	1.05	1.04	1.04
Total revenue:							
Size	1.04	1.06	1.06	1.04	1.08	1.08	1.06
% urban	0.94	0.95	0.95	0.97	0.99	0.98	0.98
% white	1.03	1.02	1.04	1.05	1.04	1.05	1.05
% poverty	1.08	1.08	1.06	1.00	0.98	0.98	0.99
Instructional expenditures:							
Size	0.98	0.99	0.98	0.96	1.02	1.01	1.01
% urban	0.93	0.91	0.91	0.92	0.96	0.95	0.94
% white	1.04	1.04	1.04	1.05	1.02	1.02	0.99
% poverty	1.09	1.10	1.11	1.07	1.11	1.12	1.13
Adjusted tax rates:							
Size	0.86	0.85	0.84	0.89	0.93	0.91	0.90
% urban	0.88	0.89	0.90	0.90	0.93	0.95	0.95
% white	1.01	1.02	1.02	1.02	1.02	1.04	1.06
% poverty	1.17	1.17	1.16	1.17	1.10	1.07	1.05

more prone to poverty. After reform, however, the advantage of the less poverty-prone districts fell to 10 percent.

The results for the other revenue measures are basically quite similar: The smaller districts had greater revenue per pupil before reform and their advantage over the larger districts grew slightly with reform. The less urban districts tended to have lower revenue per pupil by each measure than the more urban districts before reform, and they generally caught up slightly on their more urban counterparts with reform.

Reform has not substantially affected the distribution of revenues between the more white and the more minority districts on any revenue measure.

The less poverty-prone districts had a substantial advantage over the more poverty-prone districts before reform, which eliminated much of that advantage. In fact, with respect to total revenues per pupil, the shift has been so dramatic that in 1976 the less poverty-prone districts were receiving about 1 percent less revenues than the more poverty-prone districts.

Instructional Expenditures Per Pupil. Districts serving relatively more white students gained about 5 percentage points on districts having relatively few white students. Otherwise, reform has had little effect on the distribution of instructional expenditures per pupil among various kinds of districts. The smaller and the less urban districts gained relative to their larger and their more urban counterparts, but the gains have been small. There has been a slight shift in the distribution of instructional expenditures per pupil from more to less poverty-prone districts.

Adjusted Tax Rates. Reform has equalized the distribution of adjusted tax rates among various types of districts. Before reform, the relatively small districts enjoyed tax rates that were 84 to 86 percent of the tax rates levied in larger districts. By 1976 they still had relatively low tax rates, but their rates had grown to 90 percent of those levied by the larger districts. A similar pattern is observed for the less urban districts. Before reform, the less

poverty-prone districts tended to levy tax rates 16 to 17 percent greater than those in the more poverty-prone districts. Reform reduced that figure; in 1976, the rates were only about 5 percent greater.

#### HIGH SCHOOL DISTRICTS

##### The Distribution of Revenues, Instructional Expenditures, and Adjusted Tax Rates

Table 6 presents the mean, coefficient of variation, median, and relative deviation from the median for the distribution of revenues per pupil, measured at five levels of aggregation, instructional expenditures per pupil, and adjusted tax rates.

General Revenues Per Pupil. General revenues per pupil in California's secondary school districts grew less rapidly between 1970 and 1976 than they did in elementary school districts: 52 percent versus 80 percent. After growing 5 percent between 1970 and 1971, general revenues per secondary pupil grew by 9 percent to 1972, 7 percent to 1973, and only 4 percent to 1974. Rapid growth resumed in 1975, with a 9-percent growth rate in that and in the subsequent year.

Reform has slightly reduced disparities in high school districts' per-pupil general revenues, but the coefficient of variation is only a point or two lower in the post-reform years. Similarly, by 1976, the relative deviation from the median was only two points below its pre-reform values.

General Plus PL874 Revenues Per Pupil. PL874 revenues per pupil in California's secondary school districts has averaged about \$15 per pupil in each of the five years. As with elementary districts, these funds have had no effect upon revenue patterns.

Local Plus State Revenues Per Pupil. California's secondary school districts have received substantially less revenues per pupil from state categorical programs than have the elementary districts. Comparing local plus state revenues per pupil with general revenues

Table 6

MEASURES OF THE DISTRIBUTIONS OF REVENUES, INSTRUCTIONAL  
EXPENDITURES, AND ADJUSTED TAX RATES:  
CALIFORNIA HIGH SCHOOL DISTRICTS, 1970-1976

Measure	Year						
	1970 -71	1971 -72	1972 -73	1973 -74	1974 -75	1975 -76	1976 -77
General revenue:							
Mean	990	1040	1134	1214	1258	1375	1505
Coefficient of variation	.18	.19	.18	.19	.17	.17	.16
Median	964	1048	1125	1243	1279	1396	1535
Relative deviation	.13	.13	.13	.14	.13	.12	.11
General + PL874 revenue:							
Mean	1007	1058	1148	1230	1274	1388	1519
Coefficient of variation	.17	.18	.18	.19	.17	.17	.16
Median	976	1044	1138	1251	1301	1397	1552
Relative deviation	.12	.13	.13	.14	.12	.12	.11
Local + state revenue:							
Mean	1028	1080	1182	1267	1370	1443	1579
Coefficient of variation	.18	.18	.18	.18	.16	.17	.15
Median	998	1054	1172	1270	1327	1463	1595
Relative deviation	.12	.13	.13	.14	.12	.12	.11
Local + state + PL874 revenue:							
Mean	1044	1098	1196	1283	1333	1455	1594
Coefficient of variation	.17	.18	.17	.18	.16	.17	.15
Median	1003	1075	1188	1288	1351	1464	1609
Relative deviation	.12	.13	.12	.13	.12	.12	.11
Total revenue:							
Mean	1080	1140	1244	1330	1389	1521	1669
Coefficient of variation	.17	.17	.17	.18	.16	.17	.16
Median	1040	1133	1231	1348	1414	1519	1677
Relative deviation	.12	.12	.12	.13	.12	.12	.11
Instructional expenditures:							
Mean	723	769	809	869	781	830	899
Coefficient of variation	.14	.15	.15	.14	.16	.15	.14
Median	697	750	782	851	769	795	887
Relative deviation	.10	.11	.11	.10	.12	.12	.12
Adjusted tax rates:							
Mean	5.6	5.7	6.0	5.3	5.2	5.5	5.4
Coefficient of variation	.17	.17	.17	.15	.13	.14	.14
Median	5.5	5.7	6.0	5.4	5.3	5.4	5.4
Relative deviation	.14	.13	.14	.12	.11	.11	.11

NOTE: All revenue measures and instructional expenditures are dollars per pupil. Adjusted tax rates are mills.

per pupil, we see that state categorical programs accounted for approximately \$38 per pupil in 1970, growing to about \$74 per pupil in 1974. The coefficient of variation for local plus state revenue per pupil fell by 3 points (about one-sixth) between 1970 and 1976. The relative deviation from the median exhibits even less change.

Total Revenues Per Pupil. Revenues per pupil from federal categorical programs have grown slowly from about \$36 in 1970 to about \$75 in 1974. (Compare total revenues per pupil with local plus state plus PL874 revenues per pupil.) Federal revenues per pupil have had little effect upon the distribution of total revenues per pupil. We see the familiar pattern of a virtually unchanged distribution of revenues over the 1970 to 1973 period, with some decrease in the coefficient of variation in the 1974 to 1976 period. The relative deviation from the median again shows little change over the five years.

Comparing the results for total revenues per pupil with the results shown for general plus PL874 revenues per pupil, we see that state and federal categorical programs combined accounted for about \$73 or 6 percent of total revenues in 1970, and grew slowly through 1976, when they accounted for about \$150 or 9 percent of total revenues. The coefficient of variation for total revenues per pupil tends to be about the same as for general plus PL874 revenue per pupil; similarly, the relative deviation from the median for total revenues per pupil tends to be about the same as for general plus PL874 revenues per pupil. These results suggest that state and federal categorical programs in California have had no effect on distribution of general (including PL874) revenue per pupil.

Instructional Expenditure Per Pupil. As was the case for California's elementary school districts, both distributional measures for instructional expenditures per pupil tend to be smaller in each year than are the corresponding measures for any of the revenue variables. It appears that school districts obtaining relatively large (small) revenues per pupil are devoting disproportionately small (large) shares of those revenues to noninstructional

purposes. If anything, reform has increased disparity in per-pupil instructional expenditures. The coefficient of variation for per-pupil instructional expenditures was not affected by reform. The relative deviation from the median grew from about .10 prior to reform to .12 in 1974 through 1976.

Adjusted Tax Rates. Local property taxes for education averaged about 5.6 mills (adjusted to market values) in 1970 and grew steadily through 1972, when they were about 6.0 mills. Reform brought about a sharp decline (about 11 percent) to 5.3 to 5.5 mills in 1973 through 1976. This decline was accompanied by a decline in variation. The coefficient of variation dropped from .17 in each of the three pre-reform years to .15 in 1973 and then to .13 to .14 in subsequent years. The relative deviation from the median exhibits a similar pattern. It appears that reform has had the effect of very greatly increasing inter-district equality in local property tax rates for education.

#### Wealth, Income, and Tax Neutrality

Table 7 presents the elasticity of each of the five per-pupil revenue measures, instructional expenditures per pupil, and adjusted tax rates with respect to adjusted wealth per pupil, household income per pupil, and adjusted tax rates.

Revenues Per Pupil. Reform brought about improvement in wealth neutrality as regards general revenues per pupil in California's high school districts. The elasticities with respect to adjusted wealth per pupil declined about 25 percent from the pre-reform years to the last post-reform years. Nonetheless, general revenues per pupil continue to depend on adjusted wealth per pupil despite the improvement brought about by reform.

A similar, but more dramatic, pattern is evidenced by elasticities of general revenues per pupil with respect to household income per pupil. We observe rough constancy over the pre-reform years, a decline in 1973, and sharp declines in 1974 through 1976. Despite the improvements brought about by reform, income neutrality has yet to be achieved.

Table 7

ELASTICITIES OF REVENUES, INSTRUCTIONAL EXPENDITURES,  
AND ADJUSTED TAX RATES WITH RESPECT TO ADJUSTED  
WEALTH, HOUSEHOLD INCOME, AND ADJUSTED TAX RATES:  
CALIFORNIA HIGH SCHOOL DISTRICTS, 1970-1976

Dependent/Independent Variable	Year						
	1970 -71	1971 -72	1972 -73	1973 -74	1974 -75	1975 -76	1976 -77
General revenue:							
Adjusted wealth	.391	.414	.404	.399	.334	.332	.304
Household income	.286	.293	.268	.276	.229	.189	.136
Adjusted tax rate	-.176	-.232	-.239	.557	.398	.280	.139
General + PL874 revenue:							
Adjusted wealth	.380	.399	.396	.388	.329	.331	.307
Household income	.268	.274	.255	.262	.219	.184	.134
Adjusted tax rate	-.222	-.284	-.275	.494	.341	.232	.107
Local + state revenue:							
Adjusted wealth	.385	.402	.394	.380	.321	.323	.288
Household income	.267	.268	.238	.248	.198	.164	.113
Adjusted tax rate	-.187	-.237	-.244	.516	.375	.302	.139
Local + state + PL874 revenue:							
Adjusted wealth	.374	.388	.386	.370	.316	.321	.291
Household income	.250	.250	.226	.235	.189	.160	.112
Adjusted tax rate	-.231	-.288	-.279	.456	.321	.256	.109
Total revenue:							
Adjusted wealth	.364	.375	.372	.368	.312	.313	.287
Household income	.212	.212	.184	.201	.152	.121	.078
Adjusted tax rate	-.253	-.309	-.292	.414	.270	.256	.126
Instructional expenditures:							
Adjusted wealth	.266	.267	.286	.261	.266	.268	.247
Household income	.153	.150	.153	.115	.099	.072	.077
Adjusted tax rate	-.057	-.048	-.097	.225	.070	-.047	-.103
Adjusted tax rates:							
Adjusted wealth	-.259	-.254	-.283	.096	-.018	-.066	-.141
Household income	-.085	-.071	-.115	.179	.090	.004	-.063



Reform has reversed the relationship between general revenue per pupil in California's high school districts and local effort, measured by the local property tax rate levied for educational purposes. In the 1970 through 1972 period, general revenue per pupil was negatively associated with adjusted tax rates. Districts levying higher taxes tended to have lower general revenues per pupil. Reform initially brought about a large positive elasticity in 1973. Districts levying higher taxes now tended to have higher general revenues per pupil. The elasticity of general revenues per pupil with respect to the tax rate continued to be positive, but declined in value, through 1976.

Similar patterns prevail for the other revenue measures: general plus PL874 revenues per pupil, local plus state revenues per pupil, local plus state plus PL874 revenues per pupil, and total revenues per pupil. In general, the elasticity of revenue per pupil with respect to wealth per pupil was about 25 percent higher in the pre-reform era.

Household income per pupil is positively related to each revenue measure in each of the three pre-reform years and in all four post-reform years. The elasticity of each revenue measure with respect to income declined 50 to 60 percent with reform.

Adjusted tax rates were negatively related to each revenue measure in each pre-reform year and are positively related to each revenue measure in each post-reform year. As was the case for general revenues per pupil, the elasticity with respect to the adjusted tax rate declined through 1976.

In general, the distributions of revenues per pupil among California high school districts became more wealth neutral and more income neutral with reform. And reform brought about a more ex ante neutral distribution of per-pupil revenues, in the sense that California high school districts levying higher taxes obtained greater per pupil revenue after reform. But the ex ante neutrality of the distributions has consistently declined in the post-reform era, undoing some of the improvement obtained in this dimension.

Instructional Expenditures Per Pupil. Reform appears not to have affected the wealth neutrality of instructional expenditures per pupil in California's high school districts. The elasticities of instructional expenditures per pupil with respect to adjusted wealth per pupil are about the same in the post-reform years as they were in the pre-reform years. On the other hand, household income per pupil has become a much less important predictor of instructional revenues per pupil. Adjusted tax rates are not associated with instructional expenditures per pupil in any year save 1973.

Adjusted Tax Rates. Reform has sharply reduced the degree to which adjusted tax rates depend on adjusted wealth per pupil. The elasticity of adjusted tax rates with respect to adjusted wealth was negative in every year except 1973, indicating that higher-wealth districts enjoy lower local property tax rates. However, the post-reform elasticities are generally lower after reform.

Household income per pupil was negatively related to districts' local property tax rates prior to reform. In the post-reform years the elasticity of the adjusted tax rate with respect to household income per pupil is positive. Higher-income districts are levying higher local property taxes for education since reform.

#### Winners and Losers

Reform has had little effect on the distribution of revenues, instructional expenditures, or adjusted tax rates between large and small districts. Larger districts tended to have somewhat lower revenues per pupil prior to reform, and still do. The advantage of smaller districts increased from about 5 percent before reform to 6 to 8 percent greater average revenues after reform. (See Table 8.)

The less urban districts tended to have average revenues equal to about 95 or 96 percent of the average revenues enjoyed by the more urban districts prior to reform. In general, they gained substantially (6 to 8 percentage points) from reform and have 1 to 7 percent greater average revenues than the more urban districts in the post-reform years.

Table 8

DISTRIBUTIONS OF REVENUES, INSTRUCTIONAL EXPENDITURES,  
AND ADJUSTED TAX RATES BY DISTRICT CHARACTERISTICS:  
CALIFORNIA HIGH SCHOOL DISTRICTS, 1970-1976

District Characteristics	Ratio of Mean for Students Below Median to Mean for Students Above Median						
	1970 -71	1971 -72	1972 -73	Year 1973 -74	1974 -75	1975 -76	1976 -77
General revenue:							
Size	1.05	1.05	1.10	1.11	1.02	1.06	1.06
% urban	0.95	0.96	0.98	0.99	0.97	1.01	1.01
% white	1.05	1.05	1.04	1.05	1.03	1.04	1.05
% poverty	1.12	1.11	1.10	1.08	1.08	1.04	1.03
General + PL874 revenue:							
Size	1.05	1.05	1.10	1.11	1.02	1.07	1.07
% urban	0.96	0.97	0.99	1.00	0.98	1.02	1.02
% white	1.07	1.06	1.05	1.07	1.05	1.05	1.06
% poverty	1.10	1.09	1.09	1.07	1.07	1.03	1.02
Local + state revenue:							
Size	1.05	1.05	1.10	1.11	1.02	1.06	1.06
% urban	0.96	0.97	1.00	1.00	0.99	1.03	1.04
% white	1.06	1.05	1.05	1.06	1.04	1.06	1.06
% poverty	1.11	1.10	1.08	1.07	1.06	1.02	1.01
Local + state + PL874 revenue:							
Size	1.05	1.06	1.10	1.11	1.03	1.07	1.07
% urban	0.97	0.98	1.01	1.01	1.00	1.04	1.04
% white	1.07	1.06	1.06	1.07	1.05	1.07	1.07
% poverty	1.09	1.08	1.07	1.05	1.05	1.01	1.00
Total revenue:							
Size	1.06	1.07	1.10	1.12	1.04	1.08	1.08
% urban	0.99	1.01	1.03	1.03	1.02	1.07	1.07
% white	1.09	1.08	1.07	1.09	1.07	1.08	1.09
% poverty	1.06	1.05	1.04	1.03	1.01	0.98	0.97
Instructional expenditures:							
Size	1.02	1.02	1.05	1.07	1.02	1.05	1.02
% urban	0.99	0.99	0.99	1.02	1.05	1.05	1.05
% white	1.08	1.06	1.06	1.06	1.06	1.10	1.09
% poverty	1.05	1.05	1.06	1.03	1.02	1.00	0.99
Adjusted tax rates:							
Size	0.91	0.90	0.88	0.99	0.95	0.98	0.97
% urban	0.98	0.97	1.00	0.99	1.00	1.06	1.01
% white	0.94	0.92	0.91	0.95	0.96	0.98	1.01
% poverty	1.09	1.06	1.06	1.09	1.06	1.00	0.98

The districts serving less white populations tended to have revenues 5 or 6 percent greater than the average revenues of districts serving less minority populations prior to reform. They maintained their advantage in 1973 through 1976.

The districts serving less poverty-prone populations tended to have revenues 6 to 12 percent greater than the districts serving more poverty-prone populations in 1970 through 1972. Reform has generally eliminated the former's advantage. By 1976, the percent of a district's population whose incomes were below the poverty level was no longer related to its per-pupil revenues.

In regard to the distribution of instructional expenditures: The less urban districts have gained relative to the more urban districts, from 99 percent to 105 percent. Districts serving less white populations have retained a roughly 8 percent advantage over those serving more white populations; and districts serving less poverty-prone populations have lost their advantage over the more poverty-prone districts.

Reform has substantially equalized adjusted tax rates between the larger and the smaller districts. Prior to reform, smaller districts tended to have taxes equal to about 90 percent of the tax rates levied in the larger districts. By 1976, tax rates in the smaller districts were 97 percent of those in the larger districts. There has been some increase in the average property tax rate in the less urban districts and in those serving relatively nonwhite populations, compared with their more urban and less minority counterparts, and some decline in the tax rates levied in districts serving populations more prone to poverty.

#### UNIFIED SCHOOL DISTRICTS

##### The Distribution of Revenues, Instructional Expenditures, and Adjusted Tax Rates

Table 9 shows the mean, coefficient of variation, median, and relative deviation from the median for the distributions of revenues

Table 9

MEASURES OF THE DISTRIBUTIONS OF REVENUES, INSTRUCTIONAL  
EXPENDITURES, AND ADJUSTED TAX RATES:  
CALIFORNIA UNIFIED DISTRICTS, 1970-1976

Measure	Year						
	1970 -71	1971 -72	1972 -73	1973 -74	1974 -75	1975 -76	1976 -77
General revenue:							
Mean	810	866	978	1062	1144	1263	1393
Coefficient of variation	.19	.19	.19	.16	.14	.14	.13
Median	783	851	947	1034	1113	1255	1383
Relative deviation	.11	.13	.15	.10	.10	.08	.07
General + PL874 revenue:							
Mean	825	882	992	1078	1162	1277	1412
Coefficient of variation	.18	.19	.18	.16	.14	.14	.13
Median	790	864	961	1038	1170	1265	1388
Relative deviation	.11	.12	.14	.09	.09	.08	.08
Local + state revenue:							
Mean	860	925	1038	1153	1246	1379	1528
Coefficient of variation	.19	.20	.19	.16	.15	.15	.13
Median	820	906	1008	1130	1220	1372	1530
Relative deviation	.11	.12	.14	.10	.10	.08	.08
Local + state + PL874 revenue:							
Mean	874	941	1052	1169	1263	1393	1546
Coefficient of variation	.19	.19	.18	.16	.15	.14	.13
Median	827	920	1017	1134	1271	1384	1535
Relative deviation	.11	.12	.14	.09	.09	.08	.08
Total revenue:							
Mean	931	1012	1135	1247	1362	1502	1660
Coefficient of variation	.19	.19	.19	.17	.16	.15	.14
Median	907	988	1082	1236	1358	1491	1648
Relative deviation	.11	.12	.15	.10	.11	.10	.09
Instructional expenditures:							
Mean	628	665	712	792	715	757	833
Coefficient of variation	.17	.17	.18	.17	.18	.15	.13
Median	605	631	697	782	689	718	794
Relative deviation	.10	.11	.10	.10	.11	.09	.08
Adjusted tax rates:							
Mean	11.3	11.8	12.1	11.1	11.6	11.8	11.7
Coefficient of variation	.17	.16	.17	.15	.14	.13	.12
Median	10.8	11.1	11.5	10.9	11.6	12.0	12.0
Relative deviation	.13	.13	.14	.10	.11	.08	.08

NOTE: All revenue measures and instructional expenditures are dollars per pupil. Adjusted tax rates are mills.

per pupil, at five levels of aggregation, instructional expenditures per pupil, and adjusted tax rates.

General Revenues Per Pupil. General revenues per pupil in California's unified school districts grew by about 7 percent between 1970 and 1971, 13 percent between 1971 and 1972, 9 percent between 1972 and 1973, 7 percent between 1973 and 1974, and 10 percent per year in 1975 and 1976. Reform substantially reduced disparities in general revenue per pupil. The coefficient of variation fell from .19, in the three pre-reform years, to .13 in 1976. The relative deviation from the median exhibited a similar sharp decline with reform.

General Plus PL874 Revenues Per Pupil. Impact aid to California's unified school districts has averaged about \$15 per pupil in each of the seven years. These funds have not affected overall revenue patterns among California's unified districts.

Local Plus State Revenues Per Pupil. California's unified districts have enjoyed considerable growth in state categorical programs. They received approximately \$50 per pupil in state categorical aid in 1970, increasing to \$135 per pupil in 1974. (Compare local plus state revenues per pupil with general revenues per pupil in each year.) These funds have had little effect on the distributions of revenues among the unified districts. Year by year, both distributional measures for local plus state revenues are about the same as for general revenues per pupil.

Local Plus State Plus PL874 Revenues Per Pupil. PL874 revenues per pupil have had no discernible effect upon the distribution of revenues at this level of aggregation.

Total Revenues Per Pupil. Comparing total revenues per pupil with local plus state plus PL874 revenues per pupil, we see that revenues from federal categorical aid approximately doubled between 1970 and 1974--from \$57 per pupil to \$124. Federal categorical revenues seem to have had a slightly disequalizing effect on California's unified school districts in the post-reform years. Both distributional measures are somewhat higher for total revenues than

for local plus state plus PL874 revenues. It appears that federal categorical revenues are disproportionately directed toward those districts whose local plus state plus PL874 revenues per pupil are relatively high.

Comparing the results for total revenues per pupil with results shown for general plus PL874 revenues per pupil, we see that state and federal categorical aid combined accounted for about \$100 per pupil in the 1970 school year and steadily grew until they accounted for nearly \$250 per pupil in the 1976 school year. In all, revenues from categorical programs account for about 15 percent of California's unified districts' total revenue in 1976. In each of the pre-reform years the coefficient of variation and the relative deviation from the median for general plus PL874 revenues were about the same as the comparable measures for total revenues. By 1976, however, both were higher for total revenues than they were for general plus PL874 revenues. In other words, state and federal categorical funds have a disequalizing effect on the distribution of revenues among California's unified districts.

Instructional Expenditures Per Pupil. Both distributional measures for instructional expenditures per pupil declined in 1975 and 1976. As was the case for California's elementary and high school districts, disparities in instructional expenditures per pupil declined less rapidly than did disparities in revenues. Nonetheless, reform has somewhat reduced disparities in per-pupil instructional expenditures in California's unified school districts.

Adjusted Tax Rates. Local property taxes for education in California's unified districts averaged about 12 mills in each of the seven years. While reform has brought about no change in the average level of local property taxes for educational purposes, it has reduced inter-district disparities in property tax rates. The coefficient of variation fell from its pre-reform level of about .17 to about .13 in the post-reform years. Similarly, the relative deviation from the median fell from about .13 to about .09. It appears that reform has increased inter-district equality in local property tax rates for education.

### Wealth, Income, and Tax Neutrality

Table 10 presents elasticities of revenues per pupil, instructional expenditures per pupil, and adjusted tax rates with respect to adjusted wealth per pupil, household income per pupil, and adjusted tax rates.

Revenues Per Pupil. Reform has improved wealth neutrality with regard to general revenues per pupil in California's unified school districts. The elasticity of general revenue per pupil with respect to adjusted wealth per pupil declined about one-third in the post-reform years.

The elasticities of general revenue per pupil with respect to household income per pupil exhibit even sharper drops. They are about 60 percent lower in the post-reform years.

Reform has substantially improved the degree to which general revenue per pupil in California's unified school districts reflects local effort as evidenced by the local property tax rate levied for educational purposes. In the 1970 to 1972 period, general revenue per pupil was negatively related to adjusted tax rates. The tax rate is positively related to general revenues per pupil in the post-reform years. However, the magnitude of the elasticity consistently declines over the post-reform period, suggesting that the improvement in ex ante fiscal neutrality brought about by reform is eroding over time.

Similar patterns prevail for the other four revenue measures: general plus PL874 revenues per pupil, local plus state revenues per pupil, local plus state plus PL874 revenues per pupil, and total revenues per pupil. In general, we find revenues per pupil highly dependent upon wealth per pupil in the pre-reform era. There is a roughly one-third decline in the elasticity in the post-reform era; however, revenues, by all measures, remain highly dependent on adjusted wealth per pupil in the post-reform years.

Household income per pupil is positively related to each revenue measure in each of the three pre-reform years and in all four post-reform years. The elasticity of revenues with respect to



Table 10

ELASTICITIES OF REVENUES, INSTRUCTIONAL EXPENDITURES,  
AND ADJUSTED TAX RATES WITH RESPECT TO ADJUSTED  
WEALTH, HOUSEHOLD INCOME, AND ADJUSTED TAX RATES:  
CALIFORNIA UNIFIED DISTRICTS, 1970-1976

Dependent/Independent Variable	Year						
	1970	1971	1972	1973	1974	1975	1976
	-71	-72	-73	-74	-75	-76	-77
General revenue:							
Adjusted wealth	.312	.344	.350	.265	.251	.214	.221
Household income	.208	.176	.093	.142	.090	.097	.084
Adjusted tax rate	-.141	-.151	-.318	.287	.204	.069	.062
General + PL874 revenue:							
Adjusted wealth	.289	.320	.332	.250	.236	.203	.205
Household income	.210	.185	.099	.151	.101	.106	.093
Adjusted tax rate	-.186	-.207	-.351	.216	.152	.039	.037
Local + state revenue:							
Adjusted wealth	.309	.346	.347	.271	.256	.221	.219
Household income	.223	.174	.113	.133	.089	.092	.080
Adjusted tax rate	-.123	-.145	-.288	.299	.212	.075	.076
Local + state + PL874 revenue:							
Adjusted wealth	.287	.323	.330	.257	.242	.211	.204
Household income	.224	.182	.118	.141	.098	.100	.088
Adjusted tax rate	-.165	-.198	-.319	.233	.164	.048	.052
Total revenue:							
Adjusted wealth	.298	.321	.333	.260	.251	.207	.195
Household income	.192	.150	.092	.114	.072	.076	.065
Adjusted tax rate	-.178	-.178	-.315	.225	.223	.082	.097
Instructional expenditures:							
Adjusted wealth	.224	.235	.256	.249	.248	.217	.179
Household income	.183	.204	.182	.131	.135	.118	.110
Adjusted tax rate	-.045	-.056	-.113	.240	.126	-.007	-.003
Adjusted tax rates:							
Adjusted wealth	-.206	-.204	-.239	.036	-.029	-.097	-.089
Household income	-.012	-.018	.012	.129	-.008	.012	-.001

household income per pupil declined sharply between 1970 and 1972, jumped about 50 percent in the first year of reform, 1973, and then declined through 1976. By 1976, the elasticities were 35 to 45 percent of their 1970 values, but only a little below their 1972 values. It appears that, if anything, reform delayed an ongoing improvement in income neutrality.

Adjusted tax rates were negatively related to each revenue measure in each pre-reform year and positively related to revenues after reform. And, in the reform years, the elasticity of revenues with respect to the adjusted tax rate have declined over time.

Instructional Expenditures Per Pupil. Reform has somewhat improved the wealth neutrality of instructional expenditures per pupil. Reform has seen a much more dramatic decline in the relationship between instructional expenditures per pupil and household income per pupil, but household income per pupil remains positively related to instructional expenditures per pupil in the post-reform years.

Adjusted Tax Rates. Reform has sharply reduced the degree to which adjusted tax rates vary with adjusted wealth per pupil. The elasticity of the adjusted tax rate with respect to the adjusted wealth per pupil is negative in every year except 1973, indicating that higher-wealth districts enjoy lower local property taxes. The elasticities for 1975 and 1976, however, are lower than they were before reform. Household income per pupil was not a very important determinant of a district's local property tax rate prior to reform. Its elasticity is trivial in every year except 1973.

#### Winners and Losers

In the pre-reform years, revenues were becoming less equally distributed among different types of California unified school districts. Reform generally brought about greater equality.

Revenues Per Pupil. Average per-pupil revenues in California's smaller districts were approximately equal to average per pupil revenues in California's larger districts in 1970. The larger

Table 11

DISTRIBUTIONS OF REVENUES, INSTRUCTIONAL EXPENDITURES,  
AND ADJUSTED TAX RATES BY DISTRICT CHARACTERISTICS:  
CALIFORNIA UNIFIED DISTRICTS, 1970-1976

District Characteristics	Ratio of Mean for Students Below Median to Mean for Students Above Median						
	1970 -71	1971 -72	1972 -73	Year 1973 -74	1974 -75	1975 -76	1976 -77
General revenue:							
Size	1.00	0.97	0.91	0.99	0.97	0.98	0.99
% urban	0.94	0.91	0.87	0.95	0.93	0.94	0.96
% white	1.03	1.05	1.13	1.03	1.05	1.04	1.02
% poverty	0.99	0.97	0.93	1.00	0.97	0.98	0.98
General + PL874 revenue:							
Size	1.00	0.98	0.92	1.00	0.98	0.98	1.00
% urban	0.95	0.93	0.89	0.96	0.95	0.95	0.97
% white	1.05	1.06	1.14	1.04	1.06	1.05	1.04
% poverty	0.99	0.97	0.93	1.00	0.97	0.98	0.98
Local + state revenue:							
Size	1.00	0.96	0.91	0.97	0.96	0.96	0.97
% urban	0.95	0.91	0.89	0.94	0.93	0.94	0.95
% white	1.04	1.07	1.13	1.06	1.08	1.07	1.06
% poverty	0.98	0.96	0.93	0.97	0.94	0.95	0.95
Local + state + PL874 revenue:							
Size	1.00	0.97	0.92	0.98	0.96	0.96	0.97
% urban	0.96	0.93	0.90	0.95	0.94	0.95	0.96
% white	1.05	1.08	1.14	1.07	1.09	1.08	1.07
% poverty	0.99	0.96	0.93	0.97	0.94	0.95	0.95
Total revenue:							
Size	0.97	0.94	0.89	0.95	0.93	0.94	0.95
% urban	0.94	0.91	0.88	0.93	0.92	0.92	0.94
% white	1.10	1.13	1.20	1.12	1.14	1.13	1.11
% poverty	0.93	0.91	0.88	0.92	0.89	0.90	0.91
Instructional expenditures:							
Size	0.96	0.97	0.95	0.94	0.98	1.01	0.99
% urban	0.96	0.98	0.96	0.95	0.98	1.01	1.03
% white	1.08	1.08	1.10	1.10	1.04	1.01	0.99
% poverty	0.96	0.97	0.95	0.94	0.98	1.00	1.03
Adjusted tax rates:							
Size	1.00	0.98	1.00	0.97	0.93	0.96	0.96
% urban	1.04	1.02	1.05	1.00	0.93	0.98	0.97
% white	0.99	0.99	0.98	1.02	1.07	1.02	1.04
% poverty	1.07	1.07	1.09	1.04	0.97	1.01	0.99

districts gained relative to the smaller districts in 1971 and gained yet more in 1972. By the latter year, average revenue in the smaller districts were only 91 percent of average revenue in the larger districts. Reform brought much greater equality in the distribution of revenues between larger and smaller districts. After 1973, smaller districts had average per-pupil revenues about 99 percent of those in larger districts.

A similar pattern is observed in the distribution of per pupil revenue by the percent of a district's population residing in an urban area. The less urban districts had per pupil revenues 94 to 95 percent of those in the more urban districts in 1970, and lost ground relative to the more urban districts through 1971 and 1972. Reform brought about substantially more equality among districts of varying degrees of urbanity in 1973. The less urban districts had per pupil revenues equal to about 95 percent of those in the more urban districts in the post-reform period.

In 1970, the districts serving less white populations had a 3 to 5 percent revenue advantage over those serving less minority populations; their advantage was 10 percent in the case of total revenues. By 1972, revenues in these districts ranged from 13 to 20 percent greater than the revenues of school districts serving less minority populations. Reform substantially reduced these disparities. After reform, the school districts serving less white populations had 3 to 12 percent greater revenue per pupil than school districts serving less minority populations.

There was a fairly strong trend in favor of districts serving poorer populations prior to reform; it was followed by substantial equalization in 1973.

Instructional Expenditures Per Pupil. Prior to reform, instructional expenditures per pupil were somewhat greater in the larger, the more urban, the less white, and the more poverty-prone school districts. Reform has tended to equalize the distributions of instructional expenditures among various types of districts prior to or after reform.

Adjusted Tax Rates. Prior to reform, tax rates were approximately the same in large and small unified school districts. After reform, however, the smaller districts had a clear advantage, with adjusted taxes only 93 to 96 percent of those in larger districts. The less urban districts tended to have somewhat higher adjusted tax rates prior to reform than did the more urban districts. Tax rates in the former ran 2 to 5 percent higher than in the latter. After reform the pattern has reversed, with the less urban districts having somewhat lower tax rates than the more urban districts. Districts serving heavily white populations had tax rates slightly above those levied by districts serving less white populations, but the difference was only a percentage point or two. After reform, however, tax rates went up substantially in the less white districts, reaching levels 2 to 7 percent higher than the tax rates in the more white districts.

The one category in which reform seems to have an equalizing effect on the distribution of tax rates is the percent of a district's population in poverty. Prior to reform, the less poverty-prone districts tended to have tax rates 6 to 9 percent greater than those levied by more poverty-prone districts. In 1976, the more impoverished districts had tax rates about 1 percent greater than the tax rates in the less poverty-prone districts.

#### SUMMARY AND CONCLUSIONS

California's reform plan has reduced disparities in the distributions of per-pupil revenues. Roughly two-thirds of the state's public school students attend unified districts; reform has reduced disparities in the distributions of revenues among these students by 32 percent (in terms of the coefficient of variation) to 36 percent (in terms of the relative deviation from the median). Elementary districts enroll about 20 percent of the students; they have experienced some decline in revenue disparities, on the order of 20 percent. Reform has not done much to reduce disparities in the distributions of revenues among students in high school districts. These districts, however, enroll only about 10 percent of the state's students.

Reform has had far less impact on disparities in the distribution of instructional expenditures per pupil among districts of any type. However, instructional expenditures were more evenly distributed than revenues before reform. It appears that among districts of all types, those whose revenues were relatively high before reform allocated a disproportionately large share of their revenues to noninstructional purposes, while those whose revenues were relatively low before reform devoted relatively large proportions of those revenues to instructional activities. Thus, when districts that previously had low revenues per pupil received substantial increases in revenues from reform, they put those additional revenues to non-instructional uses.

Reform has substantially reduced disparities in tax rates among districts of all three types.

Wealth neutrality has been improved by reform, but revenues remain highly dependent on property tax bases in all three types of districts. Income neutrality has been improved even more; but income continues to be a major determinant of elementary and secondary school districts' revenues. There have been only slight increases in the degrees to which high school and unified districts' tax rates are associated with their revenues, and little change in the association between elementary districts' tax rates and their revenues. All in all, after reform school districts of all types found their revenues somewhat more dependent on their fiscal efforts and less dependent on the size of their tax base and the income of their community. Despite these improvements, however, the wealthier districts (in the sense of both tax base and income) retained much of their revenue-raising advantages over the less wealthy districts.

Reform has not profoundly affected the distributions of revenues or instructional expenditures between large and small, more urban and less urban, or more white and less white districts. The more poverty-prone elementary and high school districts lost relative to their less poverty-prone counterparts. The kinds of districts that realized relatively high per-pupil revenues before reform generally continued to do so, and to roughly the same degree, after reform.

The distributions of tax rates, on the other hand, have changed considerably. Larger elementary and high school districts decreased tax rates relative to their smaller counterparts. But the larger unified districts increased theirs relative to smaller unified districts. The same pattern, by district type, holds for the less urban vis-a-vis the more urban districts. Tax rates in all three types of districts grew in those serving less white communities relative to those serving less minority populations. In all three types of districts, tax rates declined in districts serving less poverty-prone populations relative to those serving more poverty-prone populations.

California tried to equalize by leveling up low-spending districts while capping high-spending districts. The first year of reform saw a dramatic increase in state aid (see Table 1) channeled to lower-spending districts through a higher-level foundation plan. And the distributions of revenues became more equal, particularly in the unified districts. But the revenue limits constrained the growth of revenues in low-spending as well as high-spending districts. But the "caps," which had been designed to hold down revenue growth in high-spending districts so that the low-spending districts could "catch up," also limited the rate at which the latter could increase their revenues. Increases in state aid had to be at least partially translated into tax relief.

If one takes the view that the quality of education is more closely related to instructional than to other expenditures, California's reform has accomplished little. Instructional expenditures per pupil are only slightly more equally distributed after reform than they were before. And they are neither more nor less related to districts' wealth as a result of reform. It appears that, compared with high-revenue districts, low-revenue-per-pupil districts did without noninstructional resources before reform and primarily used the relative revenue increases brought to them by reform to catch up in this regard.

Finally, California's reform has significantly contributed to taxpayer equity. Before reform, low-spending districts levied

substantially greater local property taxes than did high-spending districts. The combination of increased state aid and revenue limits led to substantial reductions in the low-spending districts' tax rates.



## Chapter 4

### THE EFFECTS OF REFORM IN FLORIDA

In this chapter, we review Florida's pre- and post-reform school finance systems. We then describe the data available for the analysis and the definitions of the variables of interest. Next we identify the effects of reform on the distributions of revenues per pupil, instructional expenditures per pupil, and adjusted tax rates. We examine the degree to which reform has contributed to fiscal neutrality, and describe the benefits and losses accruing to various kinds of districts as a result of reform. The chapter ends with our conclusions regarding the effects of reform in Florida.

#### SCHOOL FINANCE IN FLORIDA

Florida supports its schools through a variable-level foundation plan. Prior to 1973, each district's foundation level was determined by the sum of allowances for salaries, transportation, and other current expenses. From this total was subtracted the required local contribution: 90 percent of the calculated yield of a 6 mill local levy in 1972. The balance was provided by the state as its share of the cost of the program.

Foundation program salary allowances for instructional personnel were based on instructional unit salary values, which provided allotments ranging from \$2800 to \$9500, depending upon the rank of the teaching certificate held and years of Florida teaching service. (The unit salary value for a beginning teacher with a bachelor's degree was \$5300 in 1972.) The transportation allowance depended upon the density of a district and the number of one-way miles traveled the previous year. Allocations varied from \$61.20 per mile to \$43.20 per mile. In addition, \$6570 per instructional unit was allowed for other current expenses.

A small fund (less than two percent of the foundation program) was distributed to districts on a pro-rata basis for each pupil in

average daily attendance in grades 1-12. In 1972, this distribution was about \$10 per pupil.

A State Textbook Commission Fund was established for textbook purchases. This fund provided funds to districts based on their ADA and average book replacement costs.

A portion of the Florida Racing Commission Fund was distributed to school districts for teachers' salaries or pupil transportation unless otherwise allocated by the county commissioners. This fund was divided equally among counties.

Florida maintains several small programs for support of capital costs and driver education. These funds generally are distributed on the basis of ADA, although some are available only for demonstrated program need.

In 1973, when Florida reformed its system, the state retained the variable-level foundation approach, but revised the procedure used to calculate each district's foundation level. Weights, or relative ratios of support, were assigned to each of 26 programs: three basic programs corresponding to regular students in grades K-3, 4-9, and 10-12; eight programs for full-time special education students; seven programs for students who need special services for less than half their time in school; six programs for vocational technical students; and two programs for adult education students. Weights ranged from 1.0 for grades 4-9 to 15.0 for the homebound. The number of full-time equivalent students in each program is multiplied by the program weight and then multiplied by the base student value annually set by the legislature (\$745 in 1975). The sum of the program entitlements, adjusted by the cost-of-living index for the county in which the district is located, is the district's foundation level. From this is subtracted the required local effort--the calculated yield from 6.2931 mills in 1975--applied to assessed valuation. The balance is provided by the state as its share of the cost of the program.

Supplemental allocations are computed for transportation, elementary counselors, and occupational specialists. Adjustments for

vocational and exceptional educational programs are made to keep within the total level of state funding. (This was approximately 97 percent for 1974-1975.)

Districts may generate additional funds over the minimum up to 8 mills.

State Racing Commission funds are distributed to each county in equal amounts; counties may, at their own discretion, share this revenue with school districts.

Table 12 provides summary data on Florida school districts and their revenues by source for the 1972-1973 and 1975-1976 school years.

#### DATA AND DEFINITIONS

We obtained data for Florida for 1972-1973 from files maintained by the National Conference of State Legislatures and for 1975-1976 from *The Annual Report of the Commissioner of Education*.

In the pre-reform year, 1972, we include in general revenues per pupil all local revenues paid into either the general fund or the contracted program fund. The latter includes revenues from gifts, grants, and bequests, and from some other miscellaneous sources. General revenues per pupil also include the district's receipt from the foundation program minus the allowance for transportation plus its receipts of racing commission funds and its receipts from the state's ad valorem tax reduction fund.

Although Florida explicitly includes transportation allowance in computing each district's foundation level, transportation support is treated as a categorical program in most other states. To facilitate comparisons between our results for Florida and the results we obtained in the other four states--all of which treat transportation support as a categorical program--we compute general revenues per pupil to Florida districts net of transportation.

State Racing Commission funds are, of course, general state aid to school districts and are so treated in our calculations.

All other current revenues from state sources are treated as state categorical revenues, including all state revenues paid into the contracted programs fund.

Table 12  
SUMMARY OF FLORIDA SCHOOL DISTRICTS  
(Dollar amounts in thousands)

Item	Year	
	1972-73	1975-76
Number of districts	67	67
Assessed valuation	59,894,288	81,274,735
Average daily attendance	1,466,001	1,567,481
Revenue		
Federal	137,180	243,696
State <sup>a</sup>	795,422	1,163,497
Local	509,026	864,227
Total, all sources	1,441,628	2,271,420

<sup>a</sup>Includes Racing Commission distributions of \$14,000,000 in 1972, and \$14,640,048 in 1975.

Our data did not specifically identify districts' receipts of impact aid. As a proxy for PL874 receipts, we use federal direct aid paid into a school district's general fund. Federal direct payments are primarily impact aid, although receipts from miscellaneous small federal programs are included as well.

Total federal revenues include revenues from all federal programs, both those paid directly to a district and those distributed to districts through the state.

The adjusted local property tax rate is based on the nominal district school tax levy. Florida regularly conducts sales/assessment ratio studies and adjusts the foundation program's required contribution in order that districts do not receive state funds for underassessment. We use each district's factor to adjust its assessed value to market value and its nominal tax rate to the tax rate effectively levied on market values.

Both finance and census data were available for all 67 districts in both years.

#### THE EFFECT OF PUPIL WEIGHTS IN FLORIDA

We examined the distribution of weighted pupils among the state's districts. It was virtually identical to the distribution of (un-weighted) pupils. The simple correlation between the two was .9999.\* We computed the coefficient of variation, the relative deviation from the median, the quadratic regressions for each variable on wealth, income, and tax rates, and the distributions of each variable between districts below and above the median in size, percent minority, percent white, and percent in poverty for both weighted and unweighted pupils. The results were identical to the level of precision shown in our text tables in every case. The results discussed below are for unweighted pupils. Except for means and medians, the corresponding results for weighted pupils are identical.

#### THE DISTRIBUTIONS OF REVENUES, INSTRUCTIONAL EXPENDITURES, AND ADJUSTED TAX RATES

We examine the effects of Florida's reform on the distribution of revenues per pupil at six levels of aggregation: General revenues exclusive of Racing Commission funds, general revenues (inclusive of Racing Commission funds), general + PL874 revenues, local plus state revenues, local plus state plus PL874 revenues, and total revenues. Table 13 presents the mean, coefficient of variation, median, and relative deviation from the median for the distributions of per pupil revenues at each level of aggregation, of instructional expenditures per pupil, and of adjusted tax rates. In computing the measures, we weighted by the number of pupils (FTE) in each district.

General revenues per pupil exclusive of Racing Commission funds grew by about 42 percent between 1972 and 1975. Over the same period, the coefficient of variation increased by one percentage point and

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\* Regressing weighted pupils (W) on pupils (P) yields the following results:

$$W = -173.6 + 1.265P; \quad R^2 = .9997; \quad F = 22392. \\ (-1.3) \quad (473.2)$$

Table 13

MEASURES OF THE DISTRIBUTIONS OF REVENUES, INSTRUCTIONAL  
EXPENDITURES, AND ADJUSTED TAX RATES:  
FLORIDA DISTRICTS, 1972 AND 1975

Measure	Year	
	1972-73	1975-76
General revenue less RC funds:		
Mean	785	1119
Coefficient of variation	.12	.13
Median	765	1089
Relative deviation	.08	.11
General revenue:		
Mean	795	1128
Coefficient of variation	.12	.13
Median	780	1089
Relative deviation	.08	.10
General + PL874 revenue:		
Mean	815	1149
Coefficient of variation	.12	.13
Median	790	1095
Relative deviation	.08	.11
Local + state revenue:		
Mean	812	1182
Coefficient of variation	.14	.12
Median	805	1166
Relative deviation	.08	.09
Local + state + PL874 revenue:		
Mean	831	1203
Coefficient of variation	.15	.13
Median	814	1178
Relative deviation	.09	.11
Total revenue:		
Mean	902	1334
Coefficient of variation	.14	.12
Median	897	1301
Relative deviation	.08	.09
Instructional expenditures:		
Mean	625	853
Coefficient of variation	.12	.14
Median	614	814
Relative deviation	.07	.11
Adjusted tax rates:		
Mean	8.1	6.5
Coefficient of variation	.11	.10
Median	8.1	6.2
Relative deviation	.08	.09

NOTE: All revenue measures and instructional expenditures are dollars per pupil. Adjusted tax rates are mills.

the relative deviation from the median grew by three percentage points, an increase of about three-eighths.

Racing Commission funds provided about \$10 per pupil, and PL874 about \$20, in both 1972 and 1975. Coefficients of variation and relative deviations from the median in each year are the same for general revenues per pupil, exclusive of Racing Commission funds, general revenues per pupil, and general plus PL874 revenues per pupil. Revenues from the Racing Commission and from the Impact Aid program have no effect on the distribution of revenues among Florida's students.

Local plus state revenues per pupil, local plus state plus PL874 revenues per pupil, and total revenues per pupil also grew by about 40 percent between 1972 and 1975. At these levels of aggregation, we observe lower coefficients of variation, and somewhat larger relative deviations from the median in 1972. It appears that before reform, state categorical distributions had a disequalizing effect. The coefficient of variation for local plus state revenues per pupil was two percentage points higher than for general revenues per pupil that year. Because the difference between the two measures is state categorical revenues, disproportionately high (low) state categorical revenues must have been distributed to districts that had relatively high (low) general revenues per pupil. Conversely, in 1975, state categorical revenue appears to have had an equalizing effect, in that both distributional measures are lower for local plus state revenues than for general revenue.

Note that Florida's categorical programs provided somewhat less than \$20 per pupil in 1972. Florida's reform essentially consisted of adjusting districts' state general aid receipts for the presence of relatively large numbers of expensive-to-educate children. In essence, the traditional purposes of categorical programs are served through the general aid program. Despite this, Florida distributed about \$55 per pupil in state categorical revenue in 1975.

Total revenues per pupil differ from local plus state plus PL874 revenues per pupil by federal categorical aid per pupil. Per pupil

revenues from these programs amounted to about \$70 in 1972 and about \$130 in 1975. Federal categorical revenue was distributed in a mildly equalizing manner in both years. Both the coefficient of variation and the relative deviation from the median are lower for total revenues per pupil than for local plus state plus PL874 revenues per pupil.

Reform has had essentially the same effect upon instructional expenditures per pupil as it had on the distributions of revenues per pupil. Between 1972 and 1975, instructional expenditures per pupil grew by about 36 percent. Over that period, the coefficient of variation increased about 16 percent--from .12 to .14--and the relative deviation from the median increased substantially--from .07 to .11.

Reform has brought about a substantial decline in adjusted local property tax rates, from about 8.1 mills in 1972 to about 6.45 mills in 1975. Disparities in adjusted local tax rates have not changed much over that period. The coefficient of variation declined slightly and the relative deviation from the median slightly increased.

#### WEALTH, INCOME, AND TAX NEUTRALITY

We performed quadratic regressions of revenues per pupil, at each level of aggregation, instructional expenditures per pupil, and adjusted tax rates on adjusted wealth per pupil, on household income per pupil, and on adjusted tax rates. Table 14 shows the elasticity, at the mean, implied by each regression.

Wealth was significantly related to per pupil revenues, at each level of aggregation, before reform and continued to be significantly related to per pupil revenues after reform. Significance levels exceed .00005 in every case in both 1972 and 1975. Elasticities are about .2 in each instance. A one percent increase in wealth was accompanied by an increase in per pupil revenues of about 0.2 percent.

Wealth was also significantly related to instructional expenditures per pupil before and after reform. The corresponding elasticities are very small. The sign changes with reform. Thus, a one percent increase in wealth was associated with a 0.02 percent increase



Table 14

ELASTICITIES OF REVENUES, INSTRUCTIONAL EXPENDITURES,  
AND ADJUSTED TAX RATES WITH RESPECT TO ADJUSTED  
WEALTH, HOUSEHOLD INCOME, AND ADJUSTED TAX RATES:  
FLORIDA DISTRICTS, 1972 AND 1975

Dependent/Independent Variable	Year	
	1972-73	1975-76
General revenue less RC funds:		
Adjusted wealth	0.221	0.240
Household income	0.111	0.317
Adjusted tax rate	0.440	0.118
General revenue:		
Adjusted wealth	0.201	0.224
Household income	0.064	0.289
Adjusted tax rate	0.395	0.086
General + PL874 revenue:		
Adjusted wealth	0.199	0.214
Household income	0.087	0.306
Adjusted tax rate	0.581	0.145
Local + state revenue:		
Adjusted wealth	0.206	0.206
Household income	0.082	0.261
Adjusted tax rate	0.412	0.073
Local + state + PL874 revenue:		
Adjusted wealth	0.204	0.197
Household income	0.104	0.277
Adjusted tax rate	0.594	0.129
Total revenue:		
Adjusted wealth	0.170	0.169
Household income	0.063	0.231
Adjusted tax rate	0.598	0.139
Instructional expenditures:		
Adjusted wealth	0.183	0.213
Household income	0.099	0.348
Adjusted tax rate	0.467	0.084
Adjusted tax rates:		
Adjusted wealth	0.025	-0.038
Household income	0.078	-0.006

an instructional expenditures per pupil before reform, and a 0.04 percent decrease in per pupil instructional expenditures after reform.

Reform had no effect on the significance of the relationship between tax rates and wealth. That relationship is not significant by conventional standards either before or after reform. The elasticity of the tax rate with respect to wealth is positive in both 1972 and 1975, suggesting that higher-wealth districts generally levied higher tax rates in both years, and three times higher in the latter year. In view of the low significance levels, however, we cannot refute the hypothesis that both elasticities equal zero, and we therefore can attach little importance to their magnitudes.

The results for household income per pupil are startling. Revenues and instructional expenditures per pupil were not significantly related to household income per pupil in 1972. After reform, however, the relationship between revenues per pupil, at each level of aggregation, and instructional expenditures per pupil, on the one hand, and household income per pupil, on the other, are highly significant. The elasticities of revenues per pupil with respect to household income per pupil ranged from .06 to .1 in 1972 and from .27 to well over .3 after reform. The elasticity of instructional expenditures per pupil with respect to household income per pupil more than tripled between 1972 and 1975, from about .09 to over .34.

In 1972, Florida school districts serving low-income communities obtained revenues and spent on instruction in amounts that were, on average, no different from those for school districts serving high-income communities. Reform, however, dramatically changes these relationships. In 1975, districts serving high-income communities had revenues and instructional expenditures that were significantly higher than those in districts serving low-income communities.

Prior to reform, revenues per pupil and instructional expenditures per pupil were significantly associated with adjusted tax rates at the 10 percent level. Communities that exerted greater efforts in the form of a higher effective local tax rate had somewhat higher revenues or instructional expenditures per pupil. The elasticities

are in the range of .4 to .6; a one percent increase in the local property tax rate was associated with about a one-half percent increase in per pupil revenues and instructional expenditures. Both revenues and instructional expenditures became less dependent on effective tax rates with reform. The significant levels of regressions of revenues and instructional expenditures on adjusted tax rates and adjusted tax rates squared all declined in 1975 from their 1972 levels, though many remained significant at the 10 percent level. The corresponding elasticities declined precipitously, to about one-quarter of their pre-reform levels. The Florida system has moved away from a pattern in which communities which exerted greater efforts on behalf of the schools obtained higher revenues and had higher instructional expenditures, to a pattern in which the revenues and instructional expenditures of school districts are much less related to the efforts they extend on the behalf of schools.

Finally, we note that adjusted tax rates were not significantly related to either adjusted wealth or household income before reform and are not significantly related to adjusted wealth after reform. Tax rates were significantly related to household income after reform, but the magnitude of the relationship (an elasticity of  $-.006$ ) is so small as to be negligible.

#### WINNERS AND LOSERS

Who benefited most and least from reform? To address this question, we ranked all students in terms of a characteristic of their district and computed the ratio of the mean value of each variable of interest for those below the median to the mean value of that variable for those above the median. The four characteristics considered were district size, the white percent of a district's population, and the percent of a district's population living in families with family income below the poverty level. The results are presented in Table 15.

In 1972, students residing in Florida's smaller districts tended to have lower revenues and instructional expenditures than did the students living in Florida's larger districts. Reform

Table 15

DISTRIBUTIONS OF REVENUES, INSTRUCTIONAL EXPENDITURES,  
AND ADJUSTED TAX RATES BY DISTRICT CHARACTERISTICS:  
FLORIDA DISTRICTS, 1972 AND 1975

Ratio of Mean for Students Below Median  
to Mean for Students Above Median

District Characteristics	Year	
	1972-73	1975-76
General revenue less RC funds:		
Size	0.96	0.89
% urban	0.96	0.88
% white	1.05	1.04
% poverty	1.06	1.19
General revenue:		
Size	0.98	0.90
% urban	0.98	0.89
% white	1.05	1.04
% poverty	1.04	1.17
General + PL874 revenue:		
Size	0.97	0.89
% urban	0.96	0.88
% white	1.06	1.05
% poverty	1.06	1.18
Local + state revenue:		
Size	0.97	0.91
% urban	0.97	0.91
% white	1.04	1.04
% poverty	1.05	1.15
Local + state + PL874 revenue:		
Size	0.96	0.90
% urban	0.95	0.89
% white	1.04	1.05
% poverty	1.07	1.16
Total revenue:		
Size	0.97	0.92
% urban	0.97	0.92
% white	1.05	1.06
% poverty	1.03	1.13
Instructional expenditures:		
Size	0.96	0.89
% urban	0.96	0.85
% white	1.06	1.10
% poverty	1.06	1.18
Adjusted tax rates:		
Size	0.93	0.96
% urban	0.95	0.99
% white	1.05	1.05
% poverty	0.97	0.99

accentuated this pattern. For example, general revenues per pupil in the smaller districts were 98 percent of those in the larger districts. The comparable number in 1975 was 89 percent. Similar patterns are evident for each of the other revenue variables and for instructional expenditures. In each case, average revenues (or expenditures) in the smaller districts fell from about 96 percent of the comparable figure for the larger districts to about 90 percent.

The distribution of revenues among districts characterized by the percent of their population residing in urban areas exhibits a broadly similar pattern. Before reform, average revenues (and expenditures) in the less urban districts were about 96 percent of average revenues (and expenditures) in the more urban districts. After reform, average revenues in the former districts declined relative to those in the latter. In 1975, the less urban districts tended to have revenues about 90 percent of those obtained by the more urban districts. The increasing advantage of the more urban districts is even more dramatic in the case of instructional expenditures, where the average in the less urban districts fell to 85 percent of the average in the more urban districts.

Reform has had little effect on the distribution of revenues between districts serving more heavily white populations and those serving more minority populations. Both before and after reform, the ratio is about 1.06. Districts serving populations in which the percent white was relatively small had about 6 percent larger per pupil revenues and instructional expenditures compared to districts serving disproportionately white populations.

Florida's reform brought about a dramatic shift in funding from districts serving more poverty-prone to those serving less poverty-prone populations. The better-off districts in 1972 tended to have per pupil revenues about 6 percent greater than those in more poverty-prone districts; the relative advantage of the better-off districts increased by approximately 10 percentage points between 1972 and 1975. By the latter year, revenues per pupil in the better-off districts tended to be 15 to 20 percent higher than the comparable figure for more poverty-prone districts.

Reform led to a more even distribution of tax rates among various types of districts. In 1972, tax rates in larger districts tended to be about 7 percent greater than those in smaller districts. In 1975 the larger districts had adjusted tax rates that were only about 4 percent greater. Similarly, the less urban districts tended to enjoy tax rates about 5 percent below those of the more urban districts in 1972; that advantage was virtually eliminated by 1975. The less white districts levied higher property tax rates in 1972, and that pattern was significantly affected by reform. Districts serving populations less prone to poverty charged somewhat lower tax rates (about 3 percent) than did districts serving more impoverished populations in 1972. That differential was also virtually eliminated by 1975.

#### SUMMARY AND CONCLUSIONS

Florida's reform system is ostensibly designed to direct greater state general aid per pupil to districts that have relatively high numbers of "expensive to educate" pupils and/or serve counties in which the cost of living is relatively high. In fact, the distribution of different types of pupils among districts is such that the distribution of weighted pupils is virtually identical to the distribution of pupils. Except for the cost adjustment and the tax rate limits, Florida's system is, for all practical purposes, a foundation plan. The cost adjustment strongly favors the more urban districts, particularly Dade County, and thus favors Florida's larger, more urban, higher-income, and less poverty-prone districts.

Florida's reform has widened the disparities in revenues per pupil and in per pupil instructional expenditures. Both the coefficients of variation and the relative deviations from the median for the revenue measures that exclude state and federal categorical aid increased between 1972 and 1975. Disparities in the revenue measures which include categorical aid decreased over that period, but those declines resulted from the distribution of categorical revenues.

Reform has led to a substantially less fiscally neutral finance system. The degree of association between per pupil revenues and wealth, and between instructional expenditures and wealth remained high between 1972 and 1975. More important, districts' per pupil revenues and instructional expenditures before reform were largely independent of the incomes of the communities they served. After reform, however, there is a highly significant relationship between each revenue and expenditure variable and household income per pupil. Reform, in the case of Florida, involved a shift from an income-neutral finance system to one which is significantly biased with respect to income.

The source of this shift is almost certainly the cost adjustment factor. Whether or not school resources cost more in a county where the cost of living is relatively high is an open question; but cost-of-living indexes are likely to be higher in counties where household incomes are higher. Because Florida's approach to cost adjustment provides greater state general aid per pupil to districts where the cost-of-living index is higher, disproportionate amounts of state general aid go to the higher-income counties.

Finally, Florida's reform has somewhat benefited the larger and the more urban districts relative to the smaller and the less urban districts. And reform has very substantially benefited districts serving communities in which a relatively small proportion of the population is in poverty.

In sum, revenue disparities are somewhat greater after reform than they were before. If the cost-adjustment indices and relative student weights are accurate indicators of the relative resource costs faced by different districts and the relative costs of serving pupils with different needs, the post-reform disparities may be justified on equity grounds. But they were obtained at the cost of some decrease in wealth neutrality and the emergence of an income bias. And if the cost-adjustment factors or relative student weights are inaccurate, Florida has borne these costs in order to shift from one unequal distribution of revenues to another. Reform has also

increased the funding of districts in which a smaller proportion of the population is in poverty relative to the funding of districts serving more impoverished populations.



## Chapter 5

### THE EFFECTS OF REFORM IN KANSAS

This chapter reviews Kansas's pre- and post-reform school finance systems, describes the data available for the analysis, and identifies the effects of the reform. The analysis focuses on the consequences of reform for the distributions of revenues, instructional expenditures, and tax rates; for fiscal neutrality; and for various kinds of districts. Kansas's post-reform system distinguishes among three types of districts: districts whose enrollments are below 400, between 400 and 1299, and 1300 or more. We perform separate analyses for each type. A summary of the findings, and our conclusions, comprise the final section of the chapter.

#### SCHOOL FINANCE IN KANSAS

Kansas's school finance reform was implemented in the 1973-74 school year.

#### The Pre-Reform System

Prior to reform, state general aid to the schools was distributed through a foundation plan, a supplemental aid program, and an ad valorem tax reduction fund. Districts also received general revenues from counties.

Local revenues for general operating funds were obtained from the local property tax, an intangibles tax, and miscellaneous other local sources, including tuition and gifts. Districts were free to set their tax rate, but could not increase their budgets more than five percent over their previous budgets without approval of the Board of Tax Appeals or a district referendum. Districts held annual budget meetings at which the budget was adopted by the electors.

Property taxes were the primary source of revenue for the county school funds. Counties had to levy the equivalent of 10 mills on adjusted valuation. These proceeds were distributed to districts

according to their share of the county's resident pupils or certificated employees.

The Kansas pre-reform system employed a variable foundation level approach, in which a district's state guarantee was based on its enrollment and the number, training, and experience of its certificated district employees. District ability to pay was based on a county-wide economic index prorated to the district according to its share of certificated employees in the county.

Each district was guaranteed an amount equal to its staff's total college hours (up to 210 per teacher), divided by 30, plus total years of experience (up to 15 per teacher), divided by 5, times a unit cost factor times a pupil-teacher ratio factor. In 1972, the dollar value per unit of teacher quality was set at \$760. The pupil-teacher ratio factor was 1 if the district pupil-teacher ratio did not fall below the state minimum based on enrollment and number of high schools; if the ratio was below the state minimum, the factor was the district pupil-teacher ratio divided by the specified minimum. A district's ability to pay per certified employee was the product of the county economic index (the mean of the county's share of state total assessed valuation and state total income) and the statewide proceeds of a 10 mill tax divided by the number of county certificated employees. The state foundation plan entitlement is the difference between the guarantee and the sum of the districts' ability to pay and nondistrict revenues.

In addition the state paid 70 percent of actual per pupil transportation costs or density based costs up to \$32 per pupil.\*

The state supplemental aid program was passed in 1970. It provided for a distribution to school districts based on the number of students and number of certificated employees, adjusted by an index factor from a scale according to adjusted valuation per pupil.

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\* Both general and transportation aid was received by 303 Kansas districts under the Kansas foundation program. Moscow, Mullenville, and Rolla districts received only transportation aid; Fort Leavenworth, Hutchinson, and Topeka received only general aid; and Edson received neither general nor transportation aid.

In 1972, supplemental aid equaled \$71.70 per pupil and \$1240 per certificated staff. Districts with less than \$4000 adjusted valuation per pupil received 50 percent of these amounts; districts with \$18,000 or more valuation per pupil received only 20 percent of the pupil and teacher calculation.

Approximately seven percent of the state funds were distributed as an ad valorem tax reduction, some of which is distributed to districts and some to counties. This is a distribution from the sales tax to districts that keep their tax rates below a maximum approved levy, and is not more than the difference between the proceeds of the maximum and of the actual levy. The amount for each district is based on the previous year's tax rates and assessed valuation. In 1972-1973, 287 Kansas districts received \$6,160,656 from this program.

Kansas distributed funds for special education (educable retarded, other exceptional children, and homebound children), driver training, and vocational education. The state's payment in these programs was a varying share of the approved total expense.

Federal funds contributed approximately 30 percent of all monies available for Kansas school operating funds in 1972-1973. In selected individual districts, federal Impact Aid was an important source of revenues. Federal Impact Aid (PL874) is received by 105 of Kansas' districts. The Junction (\$1,549,512), Derby (\$947,875), Fort Leavenworth (\$927,813), and Wichita (\$630,525) districts received nearly one-half the total funds available in the state. In Fort Leavenworth, PL874 funds were approximately one-half the district budget; in the other districts listed above, these funds were closer to one-fourth or less of the budget.

#### Kansas's Post-Reform System

The 1973 Kansas school finance reform replaced the state foundation and supplemental aid programs with a guaranteed tax base (GTB) program. The county school foundation fund was reduced from 10 mills to the equivalent of a two mill tax on the 1971 assessed valuation. An income tax rebate was provided to all districts. State aid was

continued for special education, vocational education, driver training, and pupil transportation.

School districts were limited in their annual budget increases to the lower of 15 percent of the previous year's budget, or 5 percent of the median budget per pupil for Kansas districts in the same enrollment category.

The legislature annually sets "norm" budgets for districts in various enrollment size categories and "norm" local effort rates. In 1973, for example, the norm budget per pupil was \$936 for districts with enrollments below 400 ADM, \$936 minus \$.2311 for each student in excess of 400 for districts with enrollments between 400 and 1299, and \$728 for districts with enrollments of 1300 or above. The "norm" effort rate was 1.5 percent. Each district establishes its budget, subject to the budget growth limit, and computes the ratio of its budget to the "norm" budget for its enrollment category. The product of that ratio and the "norm" effort rate is its local effort rate. Local effort is then the product of the local effort rate and the sum of adjusted valuation and taxable income, each averaged over the previous three years. State equalization aid equals the difference between the district's budget and the sum of its local effort, PL874 receipts, intangibles tax receipts, and county foundation aid.

The reform requires Kansas counties to levy a tax on all county property which will yield the same dollar amount as a two mill tax would have yielded in 1971. These proceeds to the county school foundation program are distributed to school districts in one county based on their share of certificated employees, and to school districts in more than one county based on their share of resident pupils. The intangibles tax rate is the same throughout the state and the funds are distributed (by shares of certified employees or pupils) to districts in the counties where raised.

The 1973 reform plan counts impact aid as a local resource. While impact aid was a small part of the total funds available to districts (\$7.5 million of \$420 million), these funds continued to be significant for some districts, particularly Fort Leavenworth.

The state had a special allocation to that district which helped to offset some of the impact of counting all of the impact aid. It is left out of all other state distributions for equalization. In 1974-1975, 89 districts in Kansas received impact aid.

The school finance reform bill provided for a 10 percent (since raised to 15 percent) income tax rebate to school districts. Kansas residents, under a separate law, are required to identify their school district on their state income tax returns. The state distributes 10 percent of the actual Kansas collections from residents to districts. In effect, the state serves as a collection agent for a state-mandated district income tax which is one-ninth of the state income tax.

The state continues to pay for special education based on a fixed amount per special education teacher. A vocational education fund provides for expenses in vocational education not covered by federal assistance or required district taxes. Driver's training courses which are approved are financed by the state through a special fund.

Table 16 provides summary data on Kansas school districts and their General Fund revenues by source for 1972-1973 and 1974-1975.

Table 16

SUMMARY OF KANSAS SCHOOL DISTRICTS

(Dollar amounts in thousands)

Item	1972-73	1973-74	1974-75
Number of districts	311	310	309
Adjusted valuation	8,921,000	9,903,000	11,644,000
Average daily membership	471,275	457,268	446,886
General Fund Revenue <sup>a</sup>			
Federal	12,476	10,236	10,014
State	113,336	157,558	188,908
County	65,830	33,732	16,673
Local	179,861	175,574	204,421
Total, all sources	371,503	377,100	420,016

<sup>a</sup>Sources of revenues paid into the other funds are not available for all districts.

#### DATA DEFINITIONS

We obtained data on Kansas school district revenues, expenditures, tax rates, and assessed valuations from a file maintained by the National Conference of State Legislatures. These data were supplemented by information from the *Annual Statistical Report* published by the Kansas State Department of Education. The available data covered three years, 1972-1973 through 1974-1975. Because of the Fort Leavenworth District's special circumstances, we excluded it from our analysis. Data problems forced the exclusion of three other districts in 1972, of two other districts in 1973, and of one other district in 1974. Table 17 contains data on districts for which we had finance data and for which we had both finance and Census data.

Kansas school districts maintain separate fund accounting for eleven categories of expenditures and receipts: General Fund, Social Security Fund, Capital Outlay Fund, Vocational Education Fund, Transportation Fund, Special Education Fund, Coop Special Education Fund, Driver Training Fund, Food Service Fund, Special Assessment Fund, and Retirement Fund. On current account, separate property tax mill levies are permitted for the General Fund, Social Security Fund, Vocational Education Fund, Special Education Fund, and for Workman's Compensation. Kansas provides aid to the General, Vocational Education, Transportation, Special Education, Coop Special Education, Driver Training, and Food Service Funds.

We define general revenue per pupil as the sum of local revenues over all current accounts, county foundation aid, and state general aid. The latter included payments from the state foundation program and supplemental state aid, in the pre-reform year, and state equalization aid and the proceeds from the income tax rebate in the post-reform years.

Because the income tax rebate program is unique, we define an additional variable, general revenue per pupil exclusive of income tax rebate funds, and examine the effect of reform on it.

Table 17

AVAILABLE FINANCE AND CENSUS DATA ON KANSAS  
DISTRICTS AND STUDENTS, BY ENROLLMENT  
LEVEL, 1972-73 THROUGH 1974-75

Enrollment Level	Finance Data Available		Finance and Census Data Available	
	Districts	Students <sup>a</sup>	Districts	Students <sup>a</sup>
Below 400				
1972-73	66	16,300	40	11,433
1973-74	71	18,242	45	13,162
1974-75	73	18,668	49	14,296
Between 400 and 1299				
1972-73	175	124,695	173	123,763
1973-74	172	123,684	171	123,198
1974-75	169	119,554	167	118,659
1300 or more				
1972-73	66	327,297	65	322,215
1973-74	64	316,568	63	311,317
1974-75	65	308,643	64	303,285
All districts				
1972-73	307	468,292	278	457,411
1973-74	307	458,494	279	447,677
1974-75	307	446,865	280	436,240

<sup>a</sup>September 15 enrollment.

State aid includes state payments into all current accounts. Our data did not provide federal aid revenues other than Impact Aid. Accordingly, we do not examine the effects of reform on total revenues in Kansas.

Kansas assesses property at 30 percent of market value. The state computes an adjusted value for each district which reconciles departures from that rate. We use ten-thirds of a district's state-adjusted value as the wealth measure. We sum a district's local mill levies for all current accounts, multiply by the ratio of assessed value to state-adjusted value, and then multiply by three-tenths to obtain the tax rate effective on market value.

Because the reform plan provides different fiscal opportunities to districts of different sizes, we separately examine the effects of reform on districts with enrollments below 400, between 400 and 1299, and 1300 or more.

#### DISTRICTS WITH ADM BELOW 400

##### The Distribution of Revenues, Instructional Expenditures, and Adjusted Tax Rates

We examine the effects of reform on the distributions of revenues per pupil at five levels of aggregation: general revenues exclusive of income rebate funds, general revenues inclusive of income rebate funds, general plus PL874 revenues, local plus state revenues, and local plus state plus PL874 revenues. We also examine the effects of reform on the distributions of instructional expenditures per pupil and adjusted tax rates. Table 18 presents the mean, coefficient of variation, median, and relative deviation from the median for the distributions of per pupil revenues at each level of aggregation, the distribution of instructional expenditures per pupil, and the distribution of adjusted tax rates. In computing the measures, we weighted by the number of pupils (ADM) in each district.



Table 18

MEASURES OF THE DISTRIBUTIONS OF REVENUES, INSTRUCTIONAL  
EXPENDITURES, AND ADJUSTED TAX RATES:  
KANSAS DISTRICTS WITH ADM BELOW 400, 1972-1974

Measure	Year		
	1972-73	1973-74	1974-75
General revenue less tax rebate:			
Mean	1190	1261	1443
Coefficient of variation	.24	.21	.23
Median	1157	1223	1385
Relative deviation	.18	.15	.17
General revenue:			
Mean	1190	1266	1480
Coefficient of variation	.24	.21	.22
Median	1157	1229	1420
Relative deviation	.18	.15	.17
General + PL874 revenue:			
Mean	1200	1274	1488
Coefficient of variation	.23	.21	.22
Median	1170	1233	1420
Relative deviation	.17	.15	.17
Local + state revenue:			
Mean	1267	1367	1596
Coefficient of variation	.24	.21	.22
Median	1225	1317	1540
Relative deviation	.19	.16	.16
Local + state + PL874 revenue:			
Mean	1277	1375	1603
Coefficient of variation	.23	.20	.22
Median	1240	1335	1543
Relative deviation	.18	.15	.16
Instructional expenditures:			
Mean	746	761	848
Coefficient of variation	.21	.21	.20
Median	728	745	831
Relative deviation	.16	.15	.15
Adjusted tax rates:			
Mean	5.0	5.7	5.9
Coefficient of variation	.28	.20	.19
Median	5.1	5.7	5.9
Relative deviation	.21	.15	.15

NOTE: All revenue measures and instructional expenditures are dollars per pupil. Adjusted tax rates are mills.

General revenue per pupil exclusive of income tax rebate funds grew by about 6 percent between 1972 and 1973 and by about 14 percent between 1973 and 1974. The coefficient of variation declined from .24 to .21 in the first year of reform but then rose to .23 in the second year. The relative deviation from the median exhibits a similar pattern: declining sharply in the first year of reform and then growing to nearly its pre-reform level in the second year.

General revenues per pupil (inclusive of income tax rebate funds) grew by about 6 percent between 1972 and 1973 and then increased by nearly 17 percent in 1974. Comparing general revenues per pupil with general revenues per pupil exclusive of income tax rebate funds shows that, in Kansas's smaller districts, income tax rebates provided about \$5 per pupil in 1973 and over \$35 per pupil in 1974. The coefficient of variation and the relative deviation from the median for the distribution of general revenues per pupil are approximately the same in each year as the comparable figures for the distribution of general revenues per pupil exclusive of income tax rebate funds. Thus, the rebate does not seem to have had a substantial effect on the distribution of revenues per pupil in Kansas's smaller districts.

General plus PL874 revenues per pupil tend to be about \$8 to \$10 greater than general revenue per pupil; thus impact aid provides an average of about \$8 per pupil to students in the smaller districts. The coefficient of variation and the relative deviation from the median for the distribution of general plus PL874 revenues per pupil are in each year approximately equal to comparable figures for general revenues per pupil. PL874 revenues appear to be distributed among smaller districts in approximately the same way as are general revenues, and thus have no effect on equalization.

The smaller districts received considerable revenues per pupil from state categorical programs: \$77 per pupil in 1972, \$100 in 1973, and \$116 in 1974. The coefficients of variation for the distribution of local plus state revenues per pupil are approximately the same, year by year, as the coefficients of variation for general revenues per pupil. The relative deviation from the median is slightly higher in 1972 and somewhat lower in 1974, but the differences

are not large. In the smaller districts, then, the distribution of state categorical revenues appears to be approximately the same as the distribution of general revenues per pupil.

Local plus state plus PL874 revenues per pupil are distributed in about the same way as are revenues per pupil at lower levels of aggregation.

Instructional expenditures per pupil grew somewhat more slowly between 1972 and 1974 than did the revenue measures and appear to be more equally distributed among the smaller districts. The coefficient of variation is virtually constant over the three-year period, as is the relative deviation from the median. It appears that districts whose revenues per pupil were relatively high devoted a disproportionately large share of those revenues to noninstructional purposes, and that districts whose revenues per pupil were relatively low allocated a disproportionately large share of those revenues to instructional expenditures per pupil. In any event, reform has had only a slight effect, if any, on the distribution of instructional expenditures per pupil in the smaller districts.

The adjusted local property tax rate for education grew rapidly from 1972 to 1974, from slightly over 5 mills in the first year to just under 6 mills in the latter. Reform has, however, brought about very considerable equalization in the adjusted tax rates levied by the smaller districts. The coefficient of variation for this variable fell from .28 in 1972 to .20 in 1973, and to .19 in 1974. The relative deviation from the median exhibits a similar sharp drop between 1972 and 1974.

#### Wealth, Income, and Tax Neutrality

Table 19 shows the corresponding elasticities, computed at the mean, implied by quadratic regressions of revenues per pupil, at each level of aggregation, instructional expenditures per pupil, and adjusted tax rates on adjusted wealth per pupil, on household income per pupil, and on adjusted tax rates.

Table 19

ELASTICITIES OF REVENUES, INSTRUCTIONAL EXPENDITURES,  
AND ADJUSTED TAX RATES WITH RESPECT TO ADJUSTED  
WEALTH, HOUSEHOLD INCOME, AND ADJUSTED TAX RATES:  
KANSAS DISTRICTS WITH ADM BELOW 400, 1972-1974

Dependent/Independent Variable	Year		
	1972-73	1973-74	1974-75
General revenue less tax rebate:			
Adjusted wealth	0.486	0.362	0.451
Household income	0.201	0.216	0.235
Adjusted tax rate	-0.094	0.554	0.132
General revenue:			
Adjusted wealth	0.486	0.361	0.457
Household income	0.201	0.217	0.245
Adjusted tax rate	-0.094	0.553	0.122
General + PL874 revenue:			
Adjusted wealth	0.471	0.349	0.444
Household income	0.176	0.204	0.240
Adjusted tax rate	-0.097	0.549	0.145
Local + state revenue:			
Adjusted wealth	0.493	0.373	0.448
Household income	0.125	0.173	0.240
Adjusted tax rate	-0.093	0.550	0.137
Local + state + PL874 revenue:			
Adjusted wealth	0.479	0.361	0.436
Household income	0.103	0.162	0.235
Adjusted tax rate	-0.096	0.546	0.158
Instructional expenditures:			
Adjusted wealth	0.381	0.371	0.328
Household income	0.159	0.232	0.226
Adjusted tax rate	-0.125	0.491	0.093
Adjusted tax rates:			
Adjusted wealth	-0.471	0.269	-0.124
Household income	-0.011	0.249	0.184

The results for the five revenue variables are virtually identical. Regressions of the revenue variables on adjusted wealth per pupil and adjusted wealth per pupil squared were highly significant in all three years. Elasticities of revenues with respect to wealth were about .48 in 1972. They generally fell to about .36 in 1973, and then grew to about .45 in 1974. Kansas's reform has not significantly affected ex-post wealth neutrality in the distributions of revenues per pupil at any of the five levels of aggregation.

The five revenue variables also exhibit similar relationships to household income per pupil in each of the three years for which we have data. None of the variables are significantly related to household income per pupil in 1972 or in 1973. All achieve a significant relationship with household income per pupil in 1974.

Elasticities of revenues with respect to income generally increased with reform, from .1 to .2 in 1972 to .23 to .25 in 1974. Note that, before reform, the income elasticities tended to fall as the level of aggregation increased. This pattern is not observed after reform.

Quadratic regressions of each of the revenue variables on adjusted tax rates are insignificant in 1972, significant in 1973, and then insignificant again in 1974. There does not appear to be a substantial relationship between adjusted tax rates and any of the revenue variables.

Reform has had little effect on the wealth neutrality of instructional expenditures per pupil. There has been some increase in the degree to which instructional expenditures per pupil are associated with household income per pupil. The income regression in 1974 is significant. The regressions on adjusted tax rates indicate a nonsignificant relationship in 1972, substantially increasing in significance to 1973 and 1974. However, the elasticity of per pupil instructional expenditures with respect to the tax rate is negligible in 1974.

Higher-wealth districts had significantly lower tax rates before reform (elasticity =  $-.471$ ). The pattern was reversed in the first

year of reform and then restored in the second reform year. Income was not significantly related to tax rates before reform or in the second year of reform.

#### Winners and Losers

We ranked all students in terms of the characteristics of their district and computed the ratio of the mean value of each revenue and expenditure variable for those below the median to the mean value of that variable for those above the median. The four characteristics considered were district size (ADM), the percent of a district's population residing in urban areas, the percent of a district's population who are white, and the percent of a district's population living in families where the family income was below the poverty level. The results are presented in Table 20.

The effect of reform on the distribution of revenues per pupil among pupils living in various types of districts is quite similar for each of the five revenue variables. In general, we find that, in 1972, students living in the smaller districts enjoyed revenues 31 to 34 percent greater than the average revenues enjoyed by students living in the larger districts. Reform brought a decline in that advantage in the first year, 1973. In the second year, however, the ratio of the average value of each revenue variable for the students below the median in district size to the students above the median in district size tended to return to its pre-reform levels. Overall, it appears that reform has had little or no effect on the distribution of revenues among students living in different-size districts.

Students in the less urban districts had average revenues 11 to 12 percent greater than the average revenue per pupil for students living in the more urban districts in 1972. Reform has entirely eliminated this advantage; in fact, by 1974 average revenues for the students in the less urban districts were slightly below the average revenues per pupil of the students living in the more urban districts.

In 1972, students living in less white districts tended to have average revenues per pupil that were 84 or 85 percent of those for

Table 20

DISTRIBUTIONS OF REVENUES, INSTRUCTIONAL EXPENDITURES,  
AND ADJUSTED TAX RATES BY DISTRICT CHARACTERISTICS:  
KANSAS DISTRICTS WITH ADM BELOW 400, 1972-1974

Ratio of Mean for Students Below Median  
to Mean for Students Above Median

District Characteristic	Year		
	1972-73	1973-74	1974-75
General revenue less tax rebate:			
Size	1.34	1.23	1.30
% urban	1.12	1.10	0.98
% white	0.84	0.92	1.01
% poverty	0.98	1.00	1.20
General revenue:			
Size	1.34	1.23	1.30
% urban	1.12	1.10	0.99
% white	0.84	0.92	0.98
% poverty	0.98	1.08	1.21
General + PL874 revenue:			
Size	1.32	1.23	1.30
% urban	1.10	1.09	0.99
% white	0.84	0.91	0.99
% poverty	0.97	1.08	1.20
Local + state revenue:			
Size	1.33	1.22	1.30
% urban	1.13	1.11	0.99
% white	0.85	0.92	0.98
% poverty	0.97	1.08	1.20
Local + state + PL874 revenue:			
Size	1.31	1.22	1.30
% urban	1.11	1.10	0.99
% white	0.85	0.92	0.99
% poverty	0.96	1.07	1.19
Instructional expenditures:			
Size	1.25	1.21	1.21
% urban			
% white	0.91	0.91	0.94
% poverty	1.05	1.09	1.11
Adjusted tax rates:			
Size	0.95	1.17	0.99
% urban	1.00	1.04	0.95
% white	1.12	0.96	1.03
% poverty	0.90	1.05	1.08

students living in more white districts. The advantage of the more white districts was eliminated by reform; in 1974, average revenues per pupil were approximately equal for both types of districts.

Reform has substantially shifted the distribution of revenues toward districts serving less poverty-prone populations. Before reform, in 1972, the districts serving populations containing relatively few people living in poverty tended to have revenues per pupil that were 96 to 98 percent of the revenues per pupil of students living in more poverty-prone districts. That figure rose to about 120 percent in 1974.

The effects of reform on the distribution of instructional expenditures per pupil among students living in various types of districts are basically similar to the effects of reform on revenues per pupil, though the changes are generally smaller in magnitude. Students in smaller districts enjoy instructional expenditures on average substantially greater than those per pupil living in the larger districts. Reform has somewhat narrowed the disparity, but a very substantial difference remains. The pre-reform relative advantage of students living in the less urban districts has been substantially eliminated by reform and the pre-reform advantage of students living in districts serving heavily white populations was lessened though not fully eliminated by 1974. Students living in districts serving less poverty-prone populations enjoyed greater average instructional expenditures per pupil prior to reform and this differential has grown with reform.

Prior to reform the larger, the more white, and the more poverty-prone districts had average adjusted tax rates lower than the average adjusted tax rates found in the smaller, the less white, and the more poverty-prone districts. Reform substantially eliminated the advantages of the larger and the less white districts. In 1974, average tax rates were about the same in the larger and smaller districts and were only slightly higher in the less white districts than they were in the more white districts. The advantage of districts serving less poverty-prone populations was not only



eliminated by reform, but the basic pattern was reversed. By 1974, districts serving less poverty-prone populations had average adjusted tax rates 8 percent greater than those in districts serving more poverty-prone populations. Finally, the more urban districts levied tax rates which were approximately equal to those levied by the less urban districts in 1972. The latter gained from reform in the sense that their average tax rates in 1974 were only 94 percent of those in the more urban districts.

DISTRICTS WITH ADM BETWEEN 400 AND 1299

The Distribution of Revenues, Instructional Expenditures, and Adjusted Tax Rates

Table 21 presents the mean, coefficient of variation, median, and relative deviation from the median for the distributions of revenues per pupil, at five levels of aggregation, of institutional expenditures per pupil, and adjusted tax rates.

General revenues per pupil grew by about 13 percent between 1972 and 1973, and by about 12 percent between 1973 and 1974. The coefficient of variation declined with the introduction of reform in 1973 but increased to nearly its pre-reform level in 1974. The relative deviation from the median exhibits a similar pattern, declining sharply between 1972 and 1973, and then growing between 1973 and 1974. In all, reform seems to have slightly reduced disparities in general revenue per pupil, but whether 1975 and subsequent years will see further increases in disparities, continuing the trend from 1973 to 1974, remains an open question.

Comparing general revenues per pupil exclusive of income tax rebate funds to general revenues per pupil (inclusive of income tax refunds), we see that the income tax rebate provided medium-size Kansas districts about \$4 per pupil in 1973 and just under \$30 per pupil in 1974. The rebate funds seem to have been distributed in about the same way as was general revenue per pupil. The coefficient of variation and the relative deviation from the median for the

Table 21

MEASURES OF THE DISTRIBUTIONS OF REVENUES, INSTRUCTIONAL  
EXPENDITURES, AND ADJUSTED TAX RATES:  
KANSAS DISTRICTS WITH ADM BETWEEN 400 AND 1299, 1972-1974

Measure	Year		
	1972-73	1973-74	1974-75
General revenue less tax rebate:			
Mean	876	987	1085
Coefficient of variation	.21	.18	.20
Median	873	983	1067
Relative deviation	.17	.14	.15
General revenue:			
Mean	876	991	1114
Coefficient of variation	.21	.18	.20
Median	873	984	1090
Relative deviation	.17	.14	.15
General + PL874 revenue:			
Mean	881	996	1119
Coefficient of variation	.21	.18	.20
Median	875	984	1101
Relative deviation	.16	.14	.15
Local + state revenue:			
Mean	920	1054	1195
Coefficient of variation	.21	.18	.20
Median	923	1055	1160
Relative deviation	.17	.14	.15
Local + state + PL874 revenue:			
Mean	925	1060	1200
Coefficient of variation	.21	.18	.19
Median	923	1055	1163
Relative deviation	.17	.14	.15
Instructional expenditures:			
Mean	595	621	688
Coefficient of variation	.19	.17	.19
Median	580	613	678
Relative deviation	.15	.13	.12
Adjusted tax rates:			
Mean	5.8	5.4	6.0
Coefficient of variation	.28	.23	.18
Median	5.7	5.2	6.0
Relative deviation	.22	.18	.14

NOTE: All revenue measures and instructional expenditures are dollars per pupil. Adjusted tax rates are mills.

general revenue per pupil variable are identical to those observed for the general revenue per pupil exclusive of income tax rebate funds variable.

PL874 revenues accruing to median size school districts in Kansas averaged about \$5 per pupil each year between 1972 and 1974. The distribution of general plus PL874 revenues per pupil is approximately the same as the distribution of general revenues per pupil both before and after reform. PL874 revenues have not had an impact on the distribution of revenues per pupil in medium-size districts.

Local plus state revenues per pupil equals the sum of general revenues per pupil and state categorical revenues per pupil. Thus the difference between the results shown for this variable and those shown for general revenues per pupil indicate the effects of state categorical programs. These programs grew substantially between 1972, when they provided an average of \$44 per pupil in medium-size districts, through 1974, when they provided an average of \$81 per pupil in those districts. Despite their size and impressive rate of growth, the distribution of state categorical funds has not affected the distribution of revenues among pupils in Kansas's medium-size districts. Year by year, the coefficient of variation and the relative deviation from the median for general revenues per pupil are equal to the comparable measures for local plus state revenues per pupil.

Prior to reform, average instructional expenditures per pupil in medium-size districts was \$595. The number grew by about \$25 per pupil in the first year of reform and then increased by \$67 per pupil in the second year. The disparities in the instructional expenditures per pupil declined sharply in the first year of reform, but in the second year of reform, 1974, the coefficient of variation rose to its 1972 level. The relative deviation from the median, however, continued to decline in 1974. The standard deviation is based on squared deviations from the mean whereas the relative deviation from the median is based upon absolute deviations from the median. The coefficient of variation is thus more sensitive than is the relative

deviation from the median to changes in the tails of the distribution. The fact that the coefficient of the variation for instructional expenditures per pupil went up between 1973 and 1974, while the relative deviation from the median declined, suggests that the distribution has become more spiky or peaked with the observations generally pulling in closer to the center and the tails extending further from the center.

Adjusted tax rates declined sharply the first year of reform, from 5.78 mills to 5.39 mills, but then increased by over 10 percent to nearly 6 mills in 1974. Reform has brought about a very substantial decrease in disparities in adjusted tax rates; the coefficient of variation and the relative deviation from the median declined sharply between 1972 and 1973, and again between 1973 and 1974.

#### Wealth, Income, and Tax Neutrality

Table 22 shows the elasticities implied by regressions of the five per-pupil revenue measures, instructional expenditures per pupil, and the adjusted tax rates on adjusted wealth per pupil and adjusted wealth per pupil squared, on household income per pupil and household income per pupil squared, and on adjusted tax rates and adjusted tax rates squared.

Reform has slightly improved the ex-post wealth neutrality of revenues per pupil in the sense that the elasticities of revenues with respect to wealth are somewhat lower in the post-reform years compared with 1972. However, all the revenue variables are highly dependent on adjusted wealth per pupil in all three years.

Household income is significantly related to revenues per pupil both before and after reform. The elasticity of revenues with respect to income increased by about two-thirds with reform. Whereas a one percent increase in income was associated with an increase in revenues of about .23 percent before reform, a one-percent increase in income was accompanied by a .36 to .37 percent increase in revenues after reform.

Table 22

ELASTICITIES OF REVENUES, INSTRUCTIONAL EXPENDITURES,  
AND ADJUSTED TAX RATES WITH RESPECT TO ADJUSTED  
WEALTH, HOUSEHOLD INCOME, AND ADJUSTED TAX RATES:  
KANSAS DISTRICTS WITH ADM BETWEEN 400 AND 1299, 1972-1974

Dependent/Independent Variable	Year		
	1972-73	1973-74	1974-75
General revenue less tax rebate:			
Adjusted wealth	0.437	0.340	0.354
Household income	0.232	0.281	0.369
Adjusted tax rate	-0.220	0.429	0.170
General revenue:			
Adjusted wealth	0.437	0.339	0.363
Household income	0.232	0.281	0.383
Adjusted tax rate	-0.220	0.428	0.165
General + PL874 revenue:			
Adjusted wealth	0.420	0.326	0.352
Household income	0.227	0.275	0.375
Adjusted tax rate	-0.209	0.420	0.168
Local + state revenue:			
Adjusted wealth	0.453	0.356	0.375
Household income	0.215	0.272	0.378
Adjusted tax rate	-0.237	0.412	0.154
Local + state + PL874 revenue:			
Adjusted wealth	0.437	0.343	0.365
Household income	0.211	0.266	0.371
Adjusted tax rate	-0.227	0.405	0.156
Instructional expenditures:			
Adjusted wealth	0.352	0.326	0.285
Household income	0.273	0.331	0.326
Adjusted tax rate	-0.201	0.376	0.204
Adjusted tax rates:			
Adjusted wealth	-0.543	0.122	-0.046
Household income	-0.227	0.346	0.266

Adjusted tax rates were significantly related to revenues per pupil both before and after reform. However, reform changed the sign of the relationship. The elasticity of revenues with respect to the tax rate was negative in 1972; districts which levied lower tax rates had generally obtained higher per pupil revenues. Note the elasticities of the tax rate with respect to wealth and income for 1972: Both were negative. Higher-wealth (and higher-income) districts were able to levy lower tax rates and still realize higher revenues in comparison with lower-wealth (and lower-income) districts. After reform, the higher-wealth districts continued to obtain higher revenues than did lower-wealth districts, but they had to levy higher tax rates to do so. The elasticity of revenues with respect to the tax rate is positive in the post-reform years.

In general we found that the reform has brought about some improvement in wealth neutrality. However, each revenue variable remains highly dependent upon adjusted wealth per pupil in the post-reform years. There has been an increase in the degree to which each revenue measure is related to household income per pupil. And there has been a sharp increase in the dependence of each revenue measure on adjusted tax rates between 1972 and the post-reform years.

Reform has not improved the wealth neutrality of instructional expenditures per pupil. The significance levels for regressions of instructional expenditures on wealth are high in all years and the elasticities for the post-reform years are only slightly lower than the 1972 elasticity. Quadratic regression of instructional expenditures per pupil on household income per pupil and household income per pupil squared was significant in all years. The elasticity of instructional expenditures is about the same in all three years. Overall, reform seems not to have substantially affected the relationship between household income per pupil and instructional expenditures per pupil.

Adjusted tax rates were significantly related to instructional expenditures per pupil in both pre- and post-reform years. As was the case for revenues, the elasticity changed sign between 1972 and

the post-reform years. Reform has shifted the relationship between instructional expenditures per pupil and adjusted property tax rates from one in which higher-spending (for instruction) districts had lower tax rates to one in which they had to levy higher tax rates.

In all years, adjusted wealth per pupil was a significant predictor of adjusted tax rates. The elasticity of the adjusted tax rate with respect to adjusted wealth per pupil was about  $-.54$  in the pre-reform years. Thus, wealthier districts enjoyed lower property taxes and an increase of 1 percent in wealth per pupil was associated, at the mean, with a decrease of about .5 percent in the adjusted tax rate. Reform has substantially reduced the elasticity of the adjusted tax rates with respect to wealth. Conversely, household income, which had not been significantly related to adjusted tax rates prior to reform (the significance level was less than .10), became a significant predictor of the adjusted tax rate in the post-reform years. The elasticity of the adjusted tax rate with respect to household income per pupil was positive in both 1973 and 1974. These results suggest that school districts serving relatively high-income populations were levying somewhat higher local property taxes for education purposes.

#### Winners and Losers

Table 23 shows the effects of reform on the distribution of revenues per pupil, instructional expenditures per pupil, and adjusted tax rates among various types of medium-sized Kansas school districts.

Among those districts, the smaller, the less urban, and those serving less minority populations tended to have greater general revenues per pupil exclusive of income tax rebate funds than did their larger, more urban, and less white counterparts in 1972. Reform has not affected any of these patterns, though it has somewhat lessened the disparities between various types of districts. In the post-reform years, the smaller and medium-sized districts tended to have general revenues exclusive of income tax rebate funds about 14 percent larger than did the larger districts, down from a 17 percent advantage in 1972. The less urban districts in 1972 averaged

Table 23

DISTRIBUTIONS OF REVENUES, INSTRUCTIONAL EXPENDITURES,  
AND ADJUSTED TAX RATES BY DISTRICT CHARACTERISTICS:  
KANSAS DISTRICTS WITH ADM BETWEEN 400 AND 1299, 1972-1974

District Characteristic	Ratio of Mean for Students Below Median to Mean for Students Above Median		
	Year		
	1972-73	1973-74	1974-75
General revenue less tax rebate:			
Size	1.17	1.13	1.14
% urban	1.11	1.06	1.07
% white	0.93	0.95	0.94
% poverty	1.00	1.04	1.02
General revenue:			
Size	1.17	1.13	1.14
% urban	1.11	1.06	1.07
% white	0.90	0.90	0.94
% poverty	1.00	0.99	1.01
General + PL874 revenue:			
Size	1.16	1.13	1.12
% urban	1.11	1.04	1.11
% white	0.90	0.93	0.94
% poverty	1.00	0.99	1.01
Local + state revenue:			
Size	1.17	1.14	1.15
% urban	1.12	1.11	1.08
% white	0.89	0.92	0.93
% poverty	0.99	0.98	1.00
Local + state + PL874 revenue:			
Size	1.17	1.14	1.14
% urban	1.12	1.07	1.07
% white	0.89	0.92	0.93
% poverty	1.00	1.04	1.00
Instructional expenditures:			
Size	1.12	1.12	1.14
% urban	1.07	1.05	1.05
% white	0.92	0.93	0.92
% poverty	1.01	1.00	1.01
Adjusted tax rates:			
Size	0.93	0.93	0.97
% urban	0.89	0.96	0.94
% white	1.11	1.03	1.07
% poverty	1.05	1.07	1.02



about 11 percent greater general revenue exclusive of income tax rebate funds than did the more urban districts. They maintained their advantage through the reform years at the somewhat lower level, about 7 percent greater general revenue exclusive of income tax rebate funds. There has been virtually no change in the distribution of general revenue exclusive of income tax rebate funds between the more white and the more minority districts. Students living in districts serving more poverty-prone populations seemed to have fared no better and no worse in terms of this variable than have students living in districts serving less poverty-prone populations either before or after reform.

The results of the other revenue measures are basically quite similar and need not be separately discussed. In general, the smaller districts had about 17 percent greater revenues per pupil before the reform, and their advantage over the relatively larger districts declined to about 14 percent with reform. The more urban districts tended to have 11 or 12 percent less revenues per pupil in 1972; they caught up slightly with reform, achieving average revenues by each measure only about 7 percent below the average revenues enjoyed by the less urban districts. Reform has achieved greater equality in the distribution of revenues between the more white and the more minority districts on each revenue measure: In 1972, the more white districts had revenues about 10 percent above the revenues accruing to students in the less minority districts. The revenues of the latter grew to about 94 percent of the revenues of the former by 1974. Students living in districts serving less and more poverty-prone population tended to have about equal revenues per pupil both before and after reform.

Reform has had little or no effect on the distribution of instructional expenditures per pupil among pupils living in various kinds of districts. The larger and the more urban districts tended to have lower instructional expenditures per pupil than the smaller and less urban districts in 1972, and that relationship was essentially unchanged in 1974. The districts serving less white populations had instructional expenditures per pupil equal to about 92

percent of those accruing to pupils living in districts serving more white populations, and that relationship stands unchanged with reform. Finally, there has been no change in distribution of instructional expenditures per pupil between students living in more and less poverty-prone districts.

Reform has substantially equalized the distribution of adjusted tax rates among students living in various types of districts. Before reform, the relatively small districts enjoyed tax rates about 93 percent of those levied in larger districts. By 1974, that figure had risen to 97 percent. A similar pattern is observed for the less urban districts, in which relative taxes grew from 89 percent of the rates experienced in more urban districts to 94 percent. Tax rates in districts serving less white populations were about 11 percent greater than those in districts serving more white populations in 1972. The differential fell to about 7 percent in 1974. The less poverty-prone districts tended to levy tax rates about 5 percent greater than the rates levied by more poverty-prone districts before reform. These burdens were reduced by reform to a 2 percent differential in 1974.

#### DISTRICTS WITH ADM 1300 AND ABOVE

##### The Distributions of Revenues, Instructional Expenditures, and Adjusted Tax Rates

Table 24 presents the mean, coefficient of variation, median, and relative deviation of the median for distribution of revenues per pupil, at five levels of aggregation, instructional expenditures per pupil, and adjusted tax rates.

General revenue per pupil in Kansas's large districts grew from \$752 in 1972 to \$890 in 1973 and over \$1000 in 1974. This growth was accompanied by a reduction in disparities. The coefficient of variation declined from .14 in 1972 to .11 in 1974. Similarly, the relative deviation in the median declined from .11 to .09 between 1972 and 1974.

Table 24

MEASURES OF THE DISTRIBUTIONS OF REVENUES, INSTRUCTIONAL  
EXPENDITURES, AND ADJUSTED TAX RATES:  
KANSAS DISTRICTS WITH ADM 1300 AND ABOVE, 1972-1974

Measure	Year		
	1972-73	1973-74	1974-75
General revenue less tax rebate:			
Mean	752	885	985
Coefficient of variation	.14	.13	.11
Median	766	884	992
Relative deviation	.11	.11	.08
General revenue:			
Mean	752	890	1016
Coefficient of variation	.14	.13	.11
Median	766	889	1025
Relative deviation	.11	.11	.09
General + PL874 revenue:			
Mean	772	907	1035
Coefficient of variation	.12	.11	.10
Median	776	890	1030
Relative deviation	.09	.10	.08
Local + state revenue:			
Mean	775	922	1070
Coefficient of variation	.14	.13	.11
Median	782	954	1078
Relative deviation	.11	.10	.09
Local + state + PL874 revenue:			
Mean	795	940	1090
Coefficient of variation	.12	.11	.10
Median	792	954	1088
Relative deviation	.09	.09	.08
Instructional expenditures:			
Mean	563	575	643
Coefficient of variation	.11	.09	.09
Median	554	577	693
Relative deviation	.09	.08	.08
Adjusted tax rates:			
Mean	8.1	7.4	7.7
Coefficient of variation	.22	.23	.15
Median	8.4	7.5	7.6
Relative deviation	.17	.19	.13

NOTE: All revenue measures and instructional expenditures are dollars per pupil. Adjusted tax rates are mills.

The effect of the income tax rebate can be observed in the difference between the measures for general revenues per pupil and the measures for general revenues per pupil exclusive of income tax rebate funds. The income tax rebate provided about \$5 per pupil to large districts in 1973 and just over \$30 per pupil in 1974. These additional funds had virtually no effect on the distribution of general revenues among pupils in the large districts. The coefficient of variation in each year is unaffected by inclusion of the income tax rebate funds, and the relative deviation from the median is unaffected by the inclusion of income tax rebate funds in 1973 and marginally lower when rebate funds are not included in the revenue measure in 1974.

Local plus state revenue per pupil equals the sum of general revenue per pupil and state categorical revenue per pupil. The difference between the results shown for these two variables indicates the effects of state categorical programs. These programs provided about \$23 per student to large districts in 1972; about \$32 per pupil in 1973; and just under \$55 per pupil in 1974. They have had virtually no effect upon the distribution of revenues among pupils in the large districts. The coefficient of variation for local plus state revenue per pupil is identical in each year to the coefficient of variation for general revenue per pupil. Similarly, the relative deviations from the median for the two measures are virtually the same year by year.

Kansas's large districts received about \$20 per pupil in PL874 revenue each year between 1972 and 1974. Prior to reform, PL874 revenues had an equalizing effect. The coefficient of variation for general plus PL874 revenue was two points lower than the coefficient of variation for general revenue per pupil and, similarly, the relative deviation from the median for general plus PL874 revenue per pupil was two points lower than the relative deviation from the median for general revenue per pupil. These patterns are generally extended into the reform years: In both 1973 and 1974, the coefficient of variation and the relative deviation from the

median are lower when PL874 revenue is included in the revenue measure than they are when PL874 revenue is excluded.

Prior to reform, instructional expenditures per pupil were more equally distributed than revenues per pupil by every measure. Reform has reduced disparities in instructional expenditures per pupil measured by both the coefficient of variation and the relative deviation from the median. It appears that, both before and after reform, the districts benefiting from relatively larger revenues per pupil devoted a larger share of their revenues to noninstructional purposes, while districts whose revenues per pupil were relatively small devoted a larger share of their revenues to instruction.

The first year of reform saw a dramatic decline in the adjusted tax rates levied by Kansas's large districts, from over 8 mills to 7.38 mills. In 1974, however, tax rates rose to 7.7 mills. Reform has brought about dramatic declines in disparities among large Kansas districts' adjusted tax rates. The coefficient of variation declined from .22 in 1972 to .15 in 1974. Similarly, the relative deviation from the median declined from .17, in the pre-reform year, to .13 in 1974.

#### Wealth, Income, and Tax Neutrality

Table 25 shows the elasticities, at the mean, implied by regressions of the five per-pupil revenue measures, instructional expenditures per pupil, and adjusted tax rate on adjusted wealth per pupil and adjusted wealth per pupil squared, on adjusted household income per pupil and household income per pupil squared, and on the adjusted tax rate and the adjusted tax rate squared.

Reform has reduced the wealth elasticity of revenues per pupil. However, revenues remain significantly related to adjusted wealth per pupil. Reform did not affect the relationships between revenues per pupil and household income: The regressions of revenues on household income are significant in all years, and the implied elasticities are about the same in 1973 and 1974 as they were in

Table 25

ELASTICITIES OF REVENUES, INSTRUCTIONAL EXPENDITURES,  
AND ADJUSTED TAX RATES WITH RESPECT TO ADJUSTED  
WEALTH, HOUSEHOLD INCOME, AND ADJUSTED TAX RATES:  
KANSAS DISTRICTS WITH ADM 1300 AND ABOVE, 1972-1974

Dependent/Independent Variable	Year		
	1972-73	1973-74	1974-75
General revenue less tax rebate:			
Adjusted wealth	0.381	0.204	0.215
Household income	0.254	0.270	0.234
Adjusted tax rate	0.180	0.352	0.410
General revenue:			
Adjusted wealth	0.381	0.204	0.225
Household income	0.254	0.270	0.251
Adjusted tax rate	0.180	0.353	0.427
General + PL874 revenue:			
Adjusted wealth	0.219	0.111	0.141
Household income	0.201	0.240	0.213
Adjusted tax rate	0.141	0.322	0.353
Local + state revenue:			
Adjusted wealth	0.379	0.221	0.246
Household income	0.235	0.229	0.234
Adjusted tax rate	0.182	0.310	0.376
Local + state + PL874 revenue:			
Adjusted wealth	0.221	0.131	0.166
Household income	0.184	0.200	0.198
Adjusted tax rate	0.144	0.280	0.306
Instructional expenditures:			
Adjusted wealth	0.127	0.145	0.145
Household income	0.291	0.264	0.233
Adjusted tax rate	0.223	0.242	0.317
Adjusted tax rates:			
Adjusted wealth	-0.277	-0.089	-0.086
Household income	0.411	0.644	0.442

1972. Prior to reform, revenues per pupil were related to adjusted tax rates at low levels of significance. Reform substantially changed that pattern. By 1972 the adjusted tax rate became as important a predictor of revenues per pupil as was adjusted wealth per pupil. The corresponding elasticities are much larger in the post-reform era.

Instructional expenditures per pupil exhibit a similar pattern. Regressions are significant in all years for wealth, income, and the tax rate. There has been little change in the wealth or income elasticities of instructional expenditures; but its elasticity with respect to the adjusted tax rates substantially increased with reform.

Prior to reform, adjusted wealth per pupil was a significant predictor of adjusted tax rates. The elasticity of the adjusted tax rate with respect to adjusted per pupil wealth was about  $-.3$  in the pre-reform year. Thus, wealthier districts enjoyed lower property tax rates and an increase of one percent in wealth per pupil was associated, at the mean, with a decrease about  $.3$  percent in the adjusted tax rate. Reform, however, has brought about a substantially lower wealth elasticity. The relationship between the adjusted tax rate and income is essentially unchanged.

#### Winners and Losers

Table 26 shows the effects of reform on the distribution of revenues per pupil, instructional expenditures per pupil, and adjusted tax rates among the students living in various types of large Kansas school districts.

Reform has had little effect on the distribution of general revenues per pupil among students living in various types of districts. The ratio of general revenues per pupil for pupils attending districts below the median in size, percent of the population residing in urban areas, percent of the population who are white, and percent of the population living in poverty, to the general revenues received by students living in districts above the median, are virtually unchanged between 1972 and 1974.

Table 26

DISTRIBUTIONS OF REVENUES, INSTRUCTIONAL EXPENDITURES,  
AND ADJUSTED TAX RATES BY DISTRICT CHARACTERISTICS:  
KANSAS DISTRICTS WITH ADM 1300 AND ABOVE, 1972-1974

District Characteristic	Ratio of Mean for Students Below Median to Mean for Students Above Median		
	Year		
	1972-73	1973-74	1974-75
General revenue less tax rebate:			
Size	0.93	0.89	0.92
% urban	0.93	0.88	0.92
% white	0.96	1.01	0.97
% poverty	1.06	1.09	1.07
General revenue:			
Size	0.93	0.89	0.92
% urban	0.93	0.88	0.92
% white	0.95	1.01	0.98
% poverty	1.06	1.09	1.07
General + PL874 revenue:			
Size	0.96	0.91	0.93
% urban	0.95	0.90	0.94
% white	0.98	1.03	0.99
% poverty	1.06	1.08	1.07
Local + state revenue:			
Size	0.94	0.91	0.93
% urban	0.93	0.90	0.93
% white	0.96	1.00	0.97
% poverty	1.06	1.09	1.07
Local + state + PL874 revenue:			
Size	0.97	0.92	0.94
% urban	0.96	0.92	0.95
% white	0.98	1.02	0.98
% poverty	1.05	1.08	1.06
Instructional expenditures:			
Size	0.90	0.93	0.94
% urban	0.89	0.93	0.94
% white	1.01	0.98	0.97
% poverty	1.09	1.07	1.06
Adjusted tax rates:			
Size	0.78	0.73	0.80
% urban	0.75	0.72	0.80
% white	1.16	1.18	1.11
% poverty	1.24	1.20	1.12



Reform has affected the distribution of instructional expenditures per pupil between the pupils living in larger (compared with smaller) and the more urban (compared with less urban) districts. In 1974, smaller districts had instructional expenditures per pupil equal to about 94 percent of those in the larger districts, up from 90 percent in 1972. Similarly, the less urban districts had average instructional expenditures per pupil in 1974 equal to about 94 percent of those of more urban districts that year, as compared with an 89 percent ratio in 1972. In 1972, districts with higher minority ratios had slightly greater instructional expenditures per pupil than did the more white districts. That pattern reversed in 1974, when the more white districts spent about 3 percent more on instruction than the less white districts. The less poverty-prone districts had per-pupil instructional expenditures about 9 percent greater than did the more poverty prone districts.

Before reform, the smaller and the less urban of Kansas's large districts had substantially lower adjusted tax rates than their larger and more urban counterparts. Reform has slightly narrowed those disparities. The big winners, in Kansas, were the more white and less poor districts. Their adjusted tax rates had been much higher before reform. Their tax rates are still higher after reform, but the differences between them and the less white and the more poverty-prone districts have been substantially reduced.

#### SUMMARY AND CONCLUSIONS

Kansas's reform plan has the basic structure of a guaranteed tax base system. In principle, each district determines its budget per pupil, recognizing that higher local effort rates will be required to support higher budgets. Within an enrollment category, low-wealth and high-wealth districts may opt for the same budget per pupil by exerting the same local effort. State equalization aid to the lower-wealth district would be greater by an amount sufficient to compensate for the lesser local revenues it obtains in applying the effort rate to its lower wealth base.

However, Kansas appended budget growth limits to the basic plan and, in doing so, fundamentally changed its character. While relatively low-spending districts are permitted larger budget increases than are relatively high-spending districts, the limits constrain the extent to which lower-spending districts are able to take advantage of the power-equalization feature. A district whose budget was low before reform is simply not allowed to select as high a budget as may be (and almost certainly is) selected by a district whose budget was higher before reform. The finance plan does little to close the budget disparities that existed before reform. Instead, it uses state general aid to provide tax relief to the lower-wealth districts.

In addition, the income tax rebate to a county is a flat percentage of the state income tax receipts from the residents of that county. The rebate program thus channels larger rebates to the counties where incomes are higher. Because these funds may not be used to increase school spending, they must supplant local property tax revenue within the approved budget. In this way, the income tax rebate serves to provide tax relief to all districts, but particularly to the higher-income districts.

Kansas's reform does not appear to be addressed to the equalization issues that have motivated reform elsewhere. It might be described as a means for shifting the school support burden from the property tax to the income and sales taxes. In fact, improving fiscal neutrality may not have been an important reform objective. The GTB nature of the basic plan is clearly oriented toward a fiscal neutrality standard, while the income tax rebate program as clearly violates that standard.

Our empirical results are pretty much what one might expect. Revenues per pupil were somewhat more equally distributed in 1974 than they were in 1972, particularly in the large districts. Coefficients of variation for the distributions of revenue at various levels of aggregation declined 5 to 10 percent among the small and medium districts and 15 to 20 percent among the large districts.

The distribution of instructional expenditures per pupil among small and among medium districts is virtually unchanged with reform; the coefficient of variation among the large districts declined by about 18 percent between 1972 and 1974. The distributions of adjusted tax rates, on the other hand, became much more equal for all three types of districts. The coefficient of variation falls by roughly one-third in each case.

Kansas's reform has had little effect on fiscal neutrality in any of the senses considered here. Association between per-pupil revenues or instructional expenditures and the adjusted property tax base are about the same after reform as they were before. Revenues and instructional expenditures per pupil are more closely related to household income per pupil in 1974 than they were in 1972 but, in both years, household income is a much weaker predictor of either revenues or instructional expenditures than is the adjusted property tax base. The adjusted tax rate was unrelated to revenues or expenditures in either year among the small districts. It was slightly related to revenues and instructional expenditures in both years for the medium districts and in the post-reform year for the large districts.

Reform's big winners among the small districts were the more urban, the less white, and those where the incidence of poverty was lower. The distributions of revenues and instructional expenditures between different kinds of medium and large districts were not much affected by reform.

## Chapter 6

### THE EFFECTS OF REFORM IN MICHIGAN

This chapter reviews Michigan's pre- and post-reform school finance systems, describes the data available for the analysis, and identifies the effects of reform. The analysis concentrates on the consequences of reform for the distributions of revenues and tax rates, for fiscal neutrality, and for various kinds of districts. The final section of the chapter summarizes our findings and conclusions.

#### SCHOOL FINANCE IN MICHIGAN

Prior to reform, Michigan distributed general aid to the schools through a multilevel foundation program in which different foundation guarantees and computational tax rates applied to districts whose assessed value fell into different intervals. As many as four different intervals were used in the late 1960s, but two-stage systems were typical.

In 1972, the state foundation program was set at \$715 or \$644 per pupil, based on the assessed value per pupil in the district, with additional allowances for transportation, special education, and tuition. These funds are for general expenses of education, but a portion may be used for capital outlay and debt service. Additional categorical programs distribute a small share of the state support.

For school districts with less than \$17,750 equalized assessed valuation per pupil in membership, the foundation program provided the difference between \$715 per ADM and the yield of a 20 mill tax on the state equalized assessed valuation. (At \$17,749, this aid would be \$360.02 per ADM.) For school districts with \$17,750 equalized assessed valuation per ADM or more, the state guarantees the difference between \$644 per ADM and the yield of a 16 mill tax. (At \$17,750 assessed value per ADM, state aid would be \$360 per ADM.)

To fully participate in the foundation program, districts were required to have a 9 mill tax rate; pro rata participation was permitted for districts with lower tax rates. A total of 579 Michigan districts participated in the foundation program.

The balance of the state funds were distributed on the basis of the costs of approved programs. The local share was defined as that part of the costs not paid by the state support.

The Michigan constitution provides for a maximum tax rate of 50 mills for current expenditure purposes. Counties can use an allocation board to allocate a maximum of 15 mills among taxing units, or the electorate may vote an allocation of 18 mills to the taxing jurisdictions. In either case, any property tax above the 15 mill or 18 mill limit must be voted on by the electorate. Debt service and capital outlay taxes are separate from those for current expenses. Also outside the 15 mill or 18 mill local limit, voters may organize intermediate districts for mentally or physically handicapped education. The local taxes for schools provided approximately one-half the total funds in 1972.

The reform plan provided each district with a fixed revenue per mill of tax rate for operating purposes. In 1973, districts were guaranteed \$38 per mill per pupil on the first 22 mills of operating taxes. This amount is made up of the local revenue from the property tax and state aid, with state aid providing the difference \$38 per mill per pupil and the amount of local revenue. The amount of guarantee and the mill levy guarantee were annually changed by the legislature to reflect the desired level of state support. In 1974, the guarantee was \$39 per pupil per mill for the first 25 mills; in 1975, it was \$42.40 per pupil per mill for the first 20 mills and \$38.25 per pupil per mill for the next seven mills.

A phase-in period was provided to permit districts to make gradual adjustments from the foundation program. To protect districts against total dollar loss, several optional computations of state aid were possible during the first two years of the plan.

As an example of how the plan would work, a district with a state assessed valuation of \$24,000 in 1973 and a tax rate of 24 mills would have raised \$576 per pupil locally. The state share would be \$308 per pupil; at 22 mills, the state guarantee is \$836 per pupil and 22 mills of local revenue would raise only \$528 per pupil. Since the district is taxing about 22 mills, it retains the \$48 per pupil realized from the two additional mills of taxation and has available \$884 per pupil to spend.

A small amount of basic membership aid continues to aid intermediate districts. This aid is distributed on a per-pupil basis, less the equivalent of a 0.2 mill tax on property.

Municipal overburden aid primarily assisted the Detroit school district. It is designed to reduce the level of local taxation required for schools in districts where non-school-operating local taxation exceeds the state average by more than 25 percent.

For debt service equalization, the state guarantees an equal mill rate per bonded debt per pupil. The total mills equalized in any district for both operating funds and debt service was limited to 22 mills (for 1973). The state reimbursement was the amount necessary to lower the millage rate such that the yield from the millage rate and the state funds would satisfy the debt service requirements. The actual limit for debt service equalization was not increased in later years.

Special education and vocational education were included by state funding of 75 percent of the cost of the program above the costs of regular education for members in these programs.

Michigan continued to pay 75 percent of approved transportation costs to districts. Selected pupil-targeted programs were also funded by the state, either at a share of the cost or a specific amount per program professional. Some of the examples of pupil-targeted programs funded in this manner include reading support, alternative programs for pregnant persons, alternative juvenile programs, and compensatory education.

Table 27 provides summary information on Michigan's school districts and their revenues by source.

Table 27

SUMMARY OF MICHIGAN SCHOOL DISTRICTS  
(Dollar amounts in thousands)

Item	1971-72	1972-73	1973-74	1974-75	1975-76
Number of districts	608	602	597	590	587
Assessed valuation	41,663,602	44,493,655	47,804,116	51,747,786	56,794,495
Average daily membership	2,206,408	2,187,818	2,155,669	2,135,867	2,127,917
General Fund Revenue					
Federal <sup>a</sup>	102,418	112,945	116,181	145,712	161,897
State	798,504	859,463	945,116	991,396	1,028,155
Intermediate	2,894	3,403	3,875	4,583	3,431
Local <sup>b</sup>	1,150,701	1,214,530	1,379,830	1,545,809	1,716,947
Total, all sources	2,054,517	2,190,341	2,445,002	2,687,500	2,910,430

<sup>a</sup>Includes state redistribution of federal funds.

<sup>b</sup>Includes gifts and bequests.

#### DATA AND DEFINITIONS

Our data, obtained from the Michigan State Department of Education, span five years: 1971-72 through 1975-76. Limitations on the available data forced us to exclude all elementary districts and between one and seven K-12 districts in each year. Our data did not include information on instructional expenditures per pupil and thus that variable is entirely omitted from the analyses. Table 28 indicates the numbers of districts and students for which data were available in each year.

Table 28

AVAILABLE FINANCE AND CENSUS DATA ON MICHIGAN  
K-12 DISTRICTS AND STUDENTS,  
1971-72 THROUGH 1975-76

Year	Finance Data Available <sup>a</sup>		Finance and Census Data Available	
	Districts	Students	Districts	Students
1971-72	524	2,179,299	452	1,995,613
1972-73	523	2,157,223	451	1,975,135
1973-74	523	2,121,090	451	1,943,422
1974-75	523	2,100,243	451	1,925,087
1975-76	529	2,096,623	456	1,922,586

<sup>a</sup>Data were missing for 5 districts (27,109 students) in 1971, 7 districts (30,595 students) in 1972, 7 districts (34,579 students) in 1973, 7 districts (35,624 students) in 1974, and 1 district (2,016 students) in 1975.



In all years, general revenue includes all revenue derived from local and intermediate sources and receipts from the state foundation program; all other revenues from state sources are treated as state categorical revenues. Our data did not specifically identify receipts from the PL874 program; instead, we used federal direct revenues, which include: Impact Aid, Head Start, Emergency School Assistance Program funds, Community Action Program funds and other (negligible) federal programs. The bulk of direct federal revenues, however, are Impact Aid funds. Total federal revenues include federal direct revenues and all federal funds redistributed through the state.

Property is assessed at 50 percent of its fair market value; assessment reviews to equalize assessed values are conducted by the state. We divide the general fund tax rate by two to obtain the effective rate on market value and double assessed values to obtain market values.

#### THE DISTRIBUTION OF REVENUES AND ADJUSTED TAX RATES

Table 29 shows the mean, coefficient of variation, median, and relative deviation from the median for the distributions of revenue, at each level of aggregation, and adjusted tax rates.

It is apparent that reform was accompanied by substantial increases in general revenue per pupil: \$115 in the first year of reform, \$104 in the second, and \$115 in the third. The coefficient of variation is virtually constant over the four-year period, and the relative deviation from the median is only a point or two lower in the post-reform years.

The Impact Aid program provided about \$15 per pupil in the first three years, \$20 in 1974, and \$24 in 1975. These funds have had no effect on revenue disparities either before or after reform.

State categorical aid per pupil grew from about \$52 in 1971 to about \$83 in 1975. These revenues appear to have had a slightly equalizing effect in the first two years of reform, but that effect disappeared by 1975. The coefficient of variation and the relative deviation from the median for the distributions of per-pupil local

Table 29

MEASURES OF THE DISTRIBUTIONS OF REVENUES, INSTRUCTIONAL  
EXPENDITURES, AND ADJUSTED TAX RATES:  
MICHIGAN DISTRICTS, 1971-1975

Measure	Year				
	1971-72	1972-73	1973-74	1974-75	1975-76
General revenue:					
Mean	830	884	999	1103	1218
Coefficient of variation	.15	.17	.15	.15	.16
Median	790	861	962	1076	1186
Relative deviation	.12	.13	.11	.11	.10
General + PL874 revenue:					
Mean	845	901	1014	1123	1242
Coefficient of variation	.15	.17	.15	.14	.16
Median	803	879	968	1089	1192
Relative deviation	.11	.13	.11	.11	.11
Local + state revenue:					
Mean	882	948	1079	1189	1301
Coefficient of variation	.15	.15	.14	.13	.16
Median	863	913	1079	1187	1270
Relative deviation	.11	.12	.10	.10	.10
Local + state + PL874 revenue:					
Mean	898	965	1095	1209	1326
Coefficient of variation	.15	.15	.14	.14	.17
Median	891	933	1094	1208	1312
Relative deviation	.11	.12	.10	.10	.10
Total revenue:					
Mean	929	1000	1134	1258	1378
Coefficient of variation	.15	.15	.14	.14	.17
Median	911	954	1121	1246	1344
Relative deviation	.12	.11	.11	.11	.11
Adjusted tax rates:					
Mean	12.3	12.1	12.7	13.2	13.6
Coefficient of variation	.20	.24	.18	.15	.14
Median	12.3	12.3	12.3	12.5	13.3
Relative deviation	.17	.20	.15	.13	.11

NOTE: All revenue measures and instructional expenditures are dollars per pupil. Adjusted tax rates are mills.

plus state revenue are generally about the same as the corresponding statistics for the distributions of general revenue per pupil.

Federal categorical revenues, amounting to \$31 per pupil in 1971, grew to \$52 per pupil in 1975. They do not seem to have affected disparities in per-pupil revenues. The coefficient of variation and relative deviation from the median for total revenue per pupil are about the same each year as the comparable figures for local plus state plus PL874 revenue per pupil.

Comparing the measures for general plus PL874 revenue per pupil with those for total revenue per pupil, state and federal categorical aid amounted to about \$84 in 1971 and grew to about \$136 in 1975. These funds have not had a decided impact on the distribution of revenues. Year by year, the coefficients of variation and relative deviations from the median for the two variables are pretty much the same.

Adjusted tax rates have increased with reform, but disparities in adjusted tax rates have been reduced considerably. By 1975, both the coefficient of variation and the relative deviation from the median had fallen to about two-thirds of their 1972 levels.

#### WEALTH, INCOME, AND TAX NEUTRALITY

Table 30 shows the elasticity of revenues per pupil, at each level of aggregation, and adjusted tax rates with respect to adjusted wealth per pupil, household income per pupil, and the adjusted tax rate.

The elasticities of the revenue variables with respect to wealth declined between 1971 and 1972, prior to reform. At lower levels of aggregation--for general revenues and general plus PL874 revenues--the elasticity increased slightly with reform. When categorical revenues are included--for local plus state revenues, local plus state plus PL874 revenues, and total revenues--the elasticity continued to decline through 1974, then increased by about 10 percent in 1975. All in all, reform seems to have had little effect on the relationship between revenues and wealth.

Table 30

ELASTICITIES OF REVENUES, INSTRUCTIONAL EXPENDITURES,  
AND ADJUSTED TAX RATES WITH RESPECT TO ADJUSTED  
WEALTH, HOUSEHOLD INCOME, AND ADJUSTED TAX RATES:  
MICHIGAN DISTRICTS, 1971-1975

Dependent/Independent Variable	Year				
	1971-72	1972-73	1973-74	1974-75	1975-76
General revenue:					
Adjusted wealth	.251	.233	.240	.238	.249
Household income	.271	.239	.238	.221	.201
Adjusted tax rate	.504	.543	.610	.654	.689
General + PL874 revenue:					
Adjusted wealth	.253	.235	.236	.233	.238
Household income	.274	.252	.251	.233	.150
Adjusted tax rate	.451	.498	.574	.636	.667
Local + state revenue:					
Adjusted wealth	.268	.240	.225	.215	.241
Household income	.272	.247	.244	.233	.106
Adjusted tax rate	.431	.457	.535	.581	.668
Local + state + PL874 revenue:					
Adjusted wealth	.270	.241	.222	.211	.231
Household income	.275	.259	.256	.244	.061
Adjusted tax rate	.383	.416	.502	.565	.648
Total revenue:					
Adjusted wealth	.277	.248	.224	.202	.212
Household income	.278	.269	.276	.270	-.013
Adjusted tax rate	.343	.371	.482	.560	.622
Adjusted tax rates:					
Adjusted wealth	.111	.122	.131	.096	.081
Household income	.266	.277	.270	.247	.251

It may be that the 1971 results are atypical for some reason, and the 1972 elasticities are characteristic of the wealth neutrality of Michigan's pre-reform plan. If so, reform has done nothing to improve wealth neutrality in Michigan. The post-reform distributions of revenues excluding categorical aid are no more wealth-neutral than they were in 1972. And the slight improvements in wealth neutrality observed for the more aggregate revenue measures are attributable to the allocation of categorical aid. Conversely, 1972 may have been an atypical year. Compared with 1971, the post-reform revenue elasticities do suggest improvement. But, again, the improvement is most noticeable for the revenue variables that include categorical assistance.

The elasticities of revenues with respect to income exhibit similar patterns in the first four years. The elasticity declined between 1971 and 1972 and then remained roughly constant through 1974. In 1975, the elasticities with respect to income dropped sharply at higher levels of aggregation. The distributions of local plus state plus PL874 revenues and of total revenues were essentially income-neutral in 1975.

Adjusted tax rates became a much more important predictor of revenue per pupil with reform. These results suggest that Michigan's reform plan provided much more ex ante fiscal neutrality than did its foundation plan.

The relationships between adjusted tax rates and adjusted wealth and household income were largely unaffected by reform.

#### WINNERS AND LOSERS

Table 31 presents, for each variable of interest, ratios of the mean for students below the median on a district characteristic to the mean for students above the median on that characteristic. These data suggest that reform has had no effect on the distributions of revenues among various kinds of districts. The kinds of districts that had higher per-pupil revenues before reform--the larger, the more urban, the less prone to poverty--have higher per-pupil revenues

Table 31

DISTRIBUTIONS OF REVENUES, INSTRUCTIONAL EXPENDITURES,  
AND ADJUSTED TAX RATES BY DISTRICT CHARACTERISTICS:  
MICHIGAN DISTRICTS, 1971-1975

District Characteristic	Ratio of Mean for Students Below Median to Mean for Students Above Median				
	Year				
	1971-72	1972-73	1973-74	1974-75	1975-76
General revenue:					
Size	0.92	0.95	0.91	0.92	0.92
% urban	0.92	0.95	0.89	0.90	0.90
% white	1.01	0.97	1.02	1.00	1.00
% poverty	1.09	1.14	1.08	1.09	1.09
General + PL874 revenue:					
Size	0.90	0.93	0.90	0.91	0.91
% urban	0.90	0.93	0.88	0.88	0.88
% white	1.04	1.00	1.04	1.03	1.03
% poverty	1.06	1.10	1.05	1.06	1.06
Local + state revenue:					
Size	0.90	0.93	0.89	0.90	0.89
% urban	0.89	0.92	0.88	0.88	0.87
% white	1.05	1.01	1.06	1.05	1.04
% poverty	1.05	1.08	1.03	1.03	1.05
Local + state + PL874 revenue:					
Size	0.88	0.91	0.89	0.89	0.88
% urban	0.88	0.91	0.86	0.87	0.86
% white	1.08	1.04	1.08	1.07	1.07
% poverty	1.02	1.05	1.01	1.01	1.02
Total revenue:					
Size	0.87	0.89	0.87	0.87	0.86
% urban	0.86	0.89	0.85	0.84	0.84
% white	1.12	1.07	1.11	1.11	1.10
% poverty	0.98	1.01	0.97	0.97	0.98
Adjusted tax rates:					
Size	0.88	0.92	0.87	0.88	0.88
% urban	0.89	0.93	0.86	0.86	0.87
% white	0.99	0.93	1.01	1.02	1.01
% poverty	1.18	1.26	1.14	1.11	1.11

after reform. Even the magnitudes of the ratios are virtually unchanged over the five years.

There has been one important shift in the distributions of tax rates. Districts in which the incidence of poverty was relatively low had tax rates 18 percent greater than the rates levied by more poverty-prone districts. Reform improved the latter's position vis-a-vis the former; by 1975, tax rates in less poverty-prone districts were only 11 percent greater than in the more poverty-prone districts. Otherwise, the smaller and the less urban districts had substantially lower (8 to 13 percent) tax rates both before and after reform. There is little difference among districts serving populations of various proportions of minority in terms of their tax rates.

#### SUMMARY AND CONCLUSIONS

Revenue disparities are generally about the same in both pre- and post-reform years. Disparities in adjusted tax rates, however, declined substantially with reform.

As regards fiscal neutrality, the results are mixed. The post-reform years have seen much more income neutrality and substantial increases in the degree to which revenues depend on the adjusted tax rate. But wealth neutrality appears greater only in comparison with 1971. Compared with 1972, there has been little improvement in wealth neutrality.

Finally, reform has had little effect on the distribution of revenues among various kinds of districts or on the distributions of tax rates between large and small, urban and nonurban, and disproportionately white and disproportionately nonwhite districts. Districts in which the incidence of poverty was relatively low levied considerably lower taxes before reform; after reform, they still levied lower taxes, but their relative advantage had been much reduced.

What did not happen in Michigan as a result of a reform is as interesting as what did. Michigan's reform plan places no restrictions on districts' choices of budget levels (and tax rates). Districts in which "tastes" for education are high vis-a-vis other

public and private goods and services can levy high local taxes and generate high revenues. Districts whose populations would prefer lower taxes (and lower school budgets) can indulge those desires. Despite its lack of constraints, Michigan's reform plan has not resulted in widely varying district choices. If anything, the revenues are somewhat more equally distributed after reform than they were before, and disparities in local tax rates have been substantially reduced.

The distributions of revenues remain ex-post fiscally biased, but that comes as no surprise. The guarantee extends only to the first 22 mills (in 1973) or 25 mills (in 1974) or 27 mills (1975). Districts are on their own thereafter and wealthier districts earn more for each mill above the matching limit than do less wealthy districts. This alone would impart some degree of wealth bias. More important, wealth was an important determinant of revenues in the pre-reform years. The wealthier districts had generally higher revenues and lower tax rates than the less wealthy districts. School districts tend to cut back on their budgets only in extreme circumstances; consequently, in the post-reform years, the wealthier districts have tended to select tax rates that allow them to maintain previous spending levels. At the same time, there are practical limits to the rate at which a school district can utilize new resources. The less wealthy districts have increased their budgets, but at a relatively controlled rate.

In sum, Michigan's reform has brought about relatively little change. We suspect that this is not because the plan itself is ineffective but, rather, because districts' responses to the plan have been conservative.



## Chapter 7

### THE EFFECTS OF REFORM IN NEW MEXICO

This chapter reviews New Mexico's pre- and post-reform school finance systems, describes the data available for the analysis, and identifies the effects of reform. The analysis concentrates on the consequences of reform for the distributions of revenues per pupil, instructional expenditures per pupil, and adjusted tax rates, for fiscal neutrality, and for various kinds of districts. The chapter ends with a summary of our findings and conclusions.

#### SCHOOL FINANCE IN NEW MEXICO

New Mexico changed its school finance plan in 1974. Prior to then, most state aid was distributed through four major programs: the basic program, supplemental distributions, special education, and transportation. There were other, less important, state distributions for vocational education and emergency aid. Additionally, the state funded all textbooks.

The basic program employed a staffing formula whereby a district was allocated a number of staff positions in each of thirteen professional and nonprofessional staff categories according to its ADM (e.g., one principal for each 400 pupils). The staff allocations were then multiplied by a legislatively determined appropriation unit for each category (e.g., \$13,085 per principal in 1973). Twenty five percent of the sum across categories is added for support costs. The state funded 70 percent of the total.

The supplemental distributions included a small equalization aid program (essentially a foundation plan), which was about 8 percent of the basic program's size, and programs which covered isolated/essential schools (eight districts); program enrichment (nine districts); emergency distributions; and out-of-state tuition, provided where students cannot reasonably attend a New Mexico school district. The state pays the cost of special education at a fixed rate based

on the number of special education pupils (school-aged physically or mentally handicapped). This distribution was approximately \$1000 per special education ADM. The actual distribution was based on a formula for the number of teachers and support costs required.

The state paid the total approved transportation costs. The district transportation plan was approved by the state transportation director. The minimum distances were 1 mile for grades 1-6; 1.5 miles for grades 7-9, and 2 miles for grades 10-12, except where walking conditions were hazardous.

School districts order all their textbooks through the state. As the requisitions for new textbooks are approved, the state purchases the books from mineral lease income.

Local revenues made up a small percentage of New Mexico school districts' total revenues. (See Table 32 for a summary of New Mexico districts and their revenues by source.) The maximum district tax rate was 4.45 mills, except in municipalities, where it was 2.225 mills, unless the municipality waived part of its levy to the school district. No specific district tax was required to participate in state support programs. Nearly all school district tax rates were at a maximum limit.

New Mexico had a county school tax levy. The proceeds of this tax were distributed by the county superintendent to all school districts with territory within the county. The tax rate was fixed at 6.7 mills, unless county reappraisals were not completed; then the rate was 5.0 mills. The county school tax levy was distributed to districts based on their share of total county average daily membership (ADM). Districts that crossed county boundaries received a share based on the ADM who resided in each of the counties.

Under the accounting system used at the time, income from motor vehicle license fees was also reported as county income. County superintendents were responsible for distributing to school districts a portion of the state-collected motor vehicle license fees. District shares were determined by their shares of ADM.

Table 32

SUMMARY OF NEW MEXICO DISTRICTS  
(Dollar amounts in thousands)

Item	1972-73	1973-74	1974-75	1975-76
Number of districts	88	88	88	88
Assessed valuation	2,789,559	3,050,079	3,430,316	3,745,720
Average daily membership	276,155	273,743	273,063	265,374
Revenue				
Federal	45,183	42,349	47,524	56,368
State	162,234	177,351	202,410	231,265
County	20,354	22,011		
Local	51,432	67,107	97,322	106,620
Total, all sources	279,203	308,818	347,256	394,253

Federal funds contributed less than 20 percent of the funds available for all local school districts in 1972/73. However, in selected individual school districts, federal funds were an important part of the district's total revenue. Federal impact aid (PL874) was received by 57 of New Mexico's 88 school districts. The largest recipients were Albuquerque, Gallup, and Alamogordo, which received nearly one-half of the state total funds under PL874. In Albuquerque, PL874 contributed 6 percent of the total budget; in Gallup it was 25 percent, and in Alamogordo 20 percent. Atomic Energy Commission funds are received by one New Mexico district, Los Alamos, where they contribute nearly 40 percent (and impact aid another 10 percent) of the district's total revenues. This contribution is based on the presence of the Los Alamos Laboratory of the Atomic Energy Commission. Forest Reserve funds are received by county treasurers based on the presence of federal Forest Reserve lands; 22 of New Mexico's 32 counties receive these funds and distribute them to 56 districts according to their share of the county's ADM. The Johnson-O'Malley Act was passed in 1934 to assist public schools financially where they serve large blocks of Indian students or contain large tracts of Indian children.

Since 1950, with the passage of PL874, Johnson-O'Malley funds have been used for the special needs of Indian children. Twenty New Mexico districts received Johnson-O'Malley funds; the largest share (nearly one-third) went to the Gallup district.

The New Mexico school finance reform of 1974 (House Bill 85) established a state-wide local property tax rate of 8.925 mills. This rate is equal to the sum of the county rate and the municipal maximum rate before reform. The previous county-wide tax and its distribution were abolished.

The state contribution formula is based on a weighted student characteristics index, which is intended to measure cost differentials for the educational program needs of different categories of students. The state fixes a price per program unit; multiplying the price per unit by the total weighted units for a school district results in the total educational need for the district. Sources of funds are subtracted from the need to compute the state equalization guarantee.

Calculation of need was based on pupil cost differentials in the revised formula. Weights were established for the following regular categories of students: kindergarten (early childhood education), grades 1-3, grades 4-6, grades 7-9, grades 10-12; for the following special categories of students: Special Education C (moderately handicapped), Special Education D (severely handicapped); and as add-ons for the following programs: vocational, bilingual/multicultural, special education A/B (itinerant teacher/resource room). The number of students in each category is multiplied by the category weight to get the weighted number of students. For students in vocational or bilingual/multicultural programs, the number of full-time equivalents (FTE) in the program is multiplied by the program add-on factor, to get the weighted program units. For Special Education A and B programs, the number of programs is multiplied by the weight of the program to get weighted program units. The sum of the weighted number of students and the weighted program units for all special educational programs is the total weighted program units.

These program units are adjusted by an Index of Teacher Training and Experience, which is calculated for each district. The index is derived from a table of weights for five categories of years of experience and five categories of level of experience. The number of teachers in each cell is multiplied by the cell weight to give the weighted teachers. The sum of the weighted teachers is divided by the actual total number of teachers to obtain the Index for Teacher Training and Experience. This index is multiplied by the total pupil program units to obtain the adjusted program units.

The resources available to pay for need are computed as 95 percent of the sum of the following funds:

- o Proceeds from the 8.925 mill levy in the district;
- o District's share of motor vehicle license fees;
- o Federal PL874 revenues to the district;
- o Federal Forest Reserve distributions to the district;
- o Regular federal vocational program revenues.

The total of these funds available to the district is subtracted from the program cost to find the state equalization guarantee.

The state continues to fund 100 percent of approved transportation costs. The supplemental distribution includes out-of-state tuition, emergency aid, and funds for program enrichment. Instead of a special program for isolated schools, a sparsity factor was included in calculating the equalization grant. Special education and vocational aid were also included in the equalization program as add-on costs for computing need.

In 1975, state aid to school districts was expanded to include a capital outlay assistance program (Senate Bill 9). Districts that levied a one or two mill tax for capital improvements for a maximum period of up to three years were entitled to the difference between \$35 per mill and the local yield from this fund.

#### DATA AND DEFINITIONS

We obtained data on New Mexico districts' revenues, expenditures, and assessed values from the Intercultural Development Research Association for the 1972-73 through 1975-76 school years. Finance data for those years were available for all 88 districts. Census data were available for 68 of the districts, serving 272,253 students in 1972, 269,870 students in 1973, 269,182 students in 1974, and 261,372 students in 1975.

In the pre-reform years, 1972 and 1973, general revenue included all local revenues, the district's receipts from the general county school tax and from motor vehicle license fees, and its receipts from the state basic program. The proceeds from local property taxes levied for debt service interest and principal are excluded from our data. All other revenues from state sources are treated as state categorical revenues. Federal revenues included revenues from federal programs paid into the operational fund and all revenues from federal sources paid into the federal projects fund. OEO funds (e.g., Headstart, NYC, Day Care CAP, etc.) are excluded.

New Mexico assesses property at one-third market value. Assessment-sales ratios are developed in special studies of property assessment ratios by county. We adjust each district's assessed value and district tax rate (plus the general county school tax rate in the pre-reform years) by the assessment-sales ratio for its primary county.

The same definitions are used in the post-reform years, 1974 and 1975. The only differences are the elimination of the county school foundation fund and the general county school tax.

#### THE DISTRIBUTION OF REVENUES, INSTRUCTIONAL EXPENDITURES, AND ADJUSTED TAX RATES

Table 33 shows the mean, coefficient of variation, median, and relative deviation from the median for the distributions of per pupil revenues, at five levels of aggregation, instructional expenditures per pupil, and adjusted tax rates.

Table 33

MEASURES OF THE DISTRIBUTIONS OF REVENUES, INSTRUCTIONAL  
EXPENDITURES, AND ADJUSTED TAX RATES:  
NEW MEXICO DISTRICTS, 1972-1975

Measure	Year			
	1972-73	1973-74	1974-75	1975-76
General revenue:				
Mean	580	608	817	919
Coefficient of variation	.14	.15	.15	.16
Median	558	582	832	944
Relative deviation	.07	.08	.09	.09
General + PL874 revenue:				
Mean	650	659	873	983
Coefficient of variation	.17	.18	.12	.10
Median	609	611	866	975
Relative deviation	.10	.11	.06	.05
Local + state revenue:				
Mean	711	789	892	1006
Coefficient of variation	.14	.19	.19	.17
Median	669	737	876	999
Relative deviation	.09	.10	.10	.09
Local + state + PL874 revenue:				
Mean	781	839	947	1070
Coefficient of variation	.15	.18	.17	.14
Median	713	782	910	1030
Relative deviation	.10	.10	.08	.07
Total revenue:				
Mean	862	929	1035	1184
Coefficient of variation	.19	.22	.19	.17
Median	781	834	950	1087
Relative deviation	.13	.15	.12	.10
Instructional expenditures:				
Mean	512	551	614	709
Coefficient of variation	.11	.11	.10	.09
Median	492	528	613	709
Relative deviation	.06	.06	.05	.05
Adjusted tax rates:				
Mean	3.9	3.7	3.7	3.0
Coefficient of variation	.29	.31	.10	.00
Median	4.0	3.7	3.7	3.0
Relative deviation	.18	.18	.06	.00

NOTE: All revenue measures and instructional expenditures are dollars per pupil. Adjusted tax rates are mills.

It is apparent that reform was accompanied by a very substantial increase in general revenue per pupil. Between 1973 and 1974, these revenues grew by about \$209, over seven times the \$28 increase realized in the last year before reform. And the second year of reform saw a further increase in general revenue of \$102 per pupil.

New Mexico's plan attempts to equalize impact aid receipts. Judged on those terms, it has been very successful; coefficients of variation for the distribution of general plus PL874 revenue per pupil dropped sharply when the reform plan was introduced. The relative deviation from the median exhibits even greater declines between the pre-reform years, 1972 and 1973, and the post-reform years, 1974 and 1975.

The effect of including PL874 funds in the equalization target can be seen by comparing the results for general revenue per pupil with those for general plus PL874 revenue per pupil. Note that the coefficients of variation and relative deviations from the median were about 3 percentage points higher for the latter in the pre-reform years. Moreover, if the reform plan did not deduct impact aid in apportioning state general aid, each district would have received additional state general aid equal to its PL874 revenues. The distributions of general revenue per pupil in the post-reform years would have equaled what were the distributions of general plus PL874 revenue per pupil. The coefficients of variation for general revenue per pupil then would have been .12 in 1974 and .10 in 1975, and the relative deviations from the median would have been .06 and .05 in the same two years. The change in the basic structure of New Mexico's finance system, aside from inclusion of PL874 revenue in the equalization target, thus appears to be responsible for declines of about 3 percentage points or 20 percent in the coefficient of variation for general revenue per pupil and about 2 percentage points (or 20 percent) in the relative deviations from the median.

The post-reform drop in the coefficient of variation (relative deviation from the median) for the distribution of general plus



PL874 revenue per pupil is about 6-1/2 (5) percentage points. If we assume that roughly 3 (2) of those points can be attributed to reform of the finance system's basic structure, New Mexico's approach to equalizing PL874 revenues resulted in a decline of about 3-1/2 (3) percentage points in the coefficient of variation (relative deviation from the median) for the distribution of general plus PL874 revenue per pupil. This interpretation of the results is consistent with our earlier observation that, in the pre-reform years, PL874 revenues accounted for about 3 percentage points in the coefficients of variation and relative deviations from the median for the distribution of general plus PL874 revenues per pupil.

New Mexico folded some of its categorical programs into the state general aid formula when it adopted a pupil weighting system. Categorical revenue per pupil fell from \$131 in 1972 and \$181 in 1973 to \$75 in 1974 and \$85 in 1975. More to the point, the distribution of state categorical aid is highly disequalizing in the post-reform years. The coefficients of variation for the distribution of local plus state plus PL874 revenue per pupil are 4 to 5 percentage points above the comparable statistics for the distribution of general plus PL874 revenue per pupil in 1974 and 1975. Similarly, in the post-reform years, the relative deviations from the median for the former are about one-third greater than those for the latter.

Federal categorical revenues also boost the coefficients of variation and relative deviations from the median in the post-reform years. (Compare the results for local plus state plus PL874 revenue per pupil with those for per pupil total revenue.)

Instructional expenditures per pupil exhibit the patterns we observed in the other states: They are more equally distributed than any other revenue variable in every year, and their distribution is much less sensitive to reform than are the revenue distributions.

Reform brought about sharp declines in adjusted tax rates. Moreover, by the second year of reform, every district was levying the state-mandated 8.925 mills. Complete equality in tax burdens has been achieved.

WEALTH, INCOME, AND TAX NEUTRALITY

Table 34 presents the elasticities, at the mean, implied by quadratic regressions of per-pupil revenues, at five levels of aggregation, instructional expenditures per pupil, and adjusted tax rates on adjusted wealth per pupil, on household income per pupil, and on adjusted tax rates.

Wealth had been an extremely important determinant of general revenues per pupil in the pre-reform years. Reform does not reduce the degrees to which revenues per pupil depend on wealth except in the case of total revenues in 1975, where the regression is not significant at the 10 percent level.

Household income per pupil, which had been an insignificant predictor of general revenues per pupil before reform, became a significant determinant of that variable by the second year of reform. Conversely, per-pupil revenues at higher levels of aggregation became less significantly related to income after reform. Finally, total revenue per pupil was significantly related to income in all four years.

Adjusted tax rates were not significantly related to general revenues per pupil before reform. The transitional year, 1974, saw a significant association between the two variables, but New Mexico's plan precludes a continuing relationship in the post-reform era.

The elasticities of revenues per pupil with respect to wealth dropped sharply with reform. Corresponding elasticities with respect to income were generally negligible before the reform and are always negligible after. The elasticities of revenues with respect to the tax rate are forced to zero by the reform plan.

Instructional expenditures per pupil are significantly related to both wealth and income in both pre- and post-reform years. There are no changes in the elasticity of instructional expenditures with respect to either income or wealth. Instructional expenditures per pupil had been significantly related to adjusted tax rates before reform. That relationship was eliminated by reform.

Table 34

ELASTICITIES OF REVENUES, INSTRUCTIONAL EXPENDITURES,  
AND ADJUSTED TAX RATES WITH RESPECT TO ADJUSTED  
WEALTH, HOUSEHOLD INCOME, AND ADJUSTED TAX RATES:  
NEW MEXICO DISTRICTS, 1972-1975

Dependent/Independent Variable	Year			
	1972-73	1973-74	1974-75	1975-76
General revenue:				
Adjusted wealth	0.176	0.193	0.108	0.043
Household income	0.068	0.104	0.052	0.089
Adjusted tax rate	0.143	-0.082	0.368	0.000
General + PL874 revenue:				
Adjusted wealth	0.147	0.179	0.102	0.046
Household income	0.044	0.017	0.001	0.000
Adjusted tax rate	0.306	-0.217	0.201	0.000
Local + state revenue:				
Adjusted wealth	0.106	0.075	0.104	0.053
Household income	0.093	-0.119	-0.047	0.008
Adjusted tax rate	0.149	-0.016	0.365	0.000
Local + state + PL874 revenue:				
Adjusted wealth	0.088	0.071	0.099	0.055
Household income	0.171	-0.173	-0.089	-0.068
Adjusted tax rate	0.284	-0.127	0.211	0.000
Total revenue:				
Adjusted wealth	0.061	0.044	0.080	0.024
Household income	0.080	-0.124	-0.036	-0.017
Adjusted tax rate	0.329	-0.165	0.073	0.000
Instructional expenditures:				
Adjusted wealth	0.058	0.046	0.047	0.045
Household income	0.180	0.177	0.198	0.209
Adjusted tax rate	0.187	-0.143	0.014	0.000
Adjusted tax rates:				
Adjusted wealth	0.252	-0.223	-0.001	0.000
Household income	0.094	-0.142	0.057	0.000

By 1975, all New Mexico districts levied the mandated nominal local property tax rate of 8.925 mills. Obviously, tax rates are equal across districts and entirely independent of adjusted wealth, household income, and other district characteristics.

#### WINNERS AND LOSERS

Table 35 shows that New Mexico's reform has affected the distribution of general revenues per pupil among different kinds of districts. The smaller (below median ADM) districts had 10 to 12 percent more general revenue per pupil before reform; they have had only about 4 percent more per-pupil general revenues in the post-reform years. The less urban districts averaged about 5 percent more general revenue per pupil in the pre-reform years; by 1975 they averaged nearly 5 percent less general revenue per pupil. Relative general revenue per pupil fell by roughly 5 percentage points in disproportionately nonwhite districts and fell 2 or 3 percentage points in the districts serving a relatively large poverty population.

The distribution of general plus PL874 revenue among different kinds of districts is generally the same as was observed for general revenue per pupil. The major exception is that, compared with districts serving above-median percentage white populations, those serving relatively minority populations had about 7 percent greater general plus PL874 revenue per pupil before reform and about 1 percent less after. These districts had about 4 percent less general revenue per pupil before reform and nearly 10 percent less after reform. Reform has not changed the distributional pattern, but PL874 revenue has "compensated" relatively minority districts for their general revenue deficiencies.

In the pre-reform years, the relatively small and relatively rural districts, and the districts serving communities having relatively few nonwhites or relatively many persons in poverty tended to receive greater local plus state revenue per pupil. The smaller and the less urban districts retained their relative advantage in the post-reform years. However, reform has narrowed the

Table 35

DISTRIBUTIONS OF REVENUES, INSTRUCTIONAL EXPENDITURES,  
AND ADJUSTED TAX RATES BY DISTRICT CHARACTERISTICS:  
NEW MEXICO DISTRICTS, 1972-1975

District Characteristic	Ratio of Mean for Students Below Median to Mean for Students Above Median			
	Year			
	1972-73	1973-74	1974-75	1975-76
General revenue:				
Size	1.10	1.12	1.05	1.04
% urban	1.05	1.06	1.00	0.96
% white	0.96	0.96	0.91	0.90
% poverty	1.03	1.03	1.04	1.06
General + PL874 revenue:				
Size	1.09	1.12	1.06	1.05
% urban	1.09	1.10	1.04	1.01
% white	1.08	1.06	0.99	0.98
% poverty	0.98	0.99	1.00	1.01
Local + state revenue:				
Size	1.14	1.16	1.11	1.09
% urban	1.09	1.12	1.06	1.02
% white	0.95	0.94	0.91	0.90
% poverty	0.95	0.93	0.98	1.00
Local + state + PL874 revenue:				
Size	1.13	1.15	1.11	1.09
% urban	1.12	1.15	1.09	1.06
% white	1.05	1.01	0.97	0.97
% poverty	0.92	0.91	0.95	0.96
Total revenue:				
Size	1.16	1.21	1.17	1.14
% urban	1.16	1.21	1.14	1.11
% white	1.04	1.01	0.97	0.96
% poverty	0.89	0.86	0.91	0.91
Instructional expenditures:				
Size	1.07	1.06	1.04	1.04
% urban	1.02	1.02	0.99	0.97
% white	1.00	1.00	0.98	0.97
% poverty	1.01	1.00	1.04	1.04
Adjusted tax rates:				
Size	1.07	1.16	0.97	1.00
% urban	1.03	1.08	0.97	1.00
% white	1.17	1.18	1.04	1.00
% poverty	0.99	0.98	1.05	1.00
Mean	745	780	860	999
Mean	1007	1058	1148	1230
			1076	1196
			1274	1388
				1327
				1519

differences between them and the larger and the more urban districts. Districts serving heavily minority populations have lost local plus state revenue per pupil compared with districts serving heavily white populations. Reform has eliminated the advantage once held by districts serving relatively many persons in poverty.

Before reform, the smaller districts had averaged about 15 percent more local plus state plus PL874 revenue per pupil compared with districts above the median in size. Reform seems to have reduced the relative advantage of the smaller districts, and also of the less urban districts. Districts serving disproportionately nonwhite populations not only lost their advantage with reform; in the post-reform years, the more white districts averaged greater local plus state plus PL874 revenue per pupil. The pre-reform advantage of districts serving relatively many persons in poverty was somewhat reduced.

In terms of total revenue per pupil, the smaller, the less urban, and the more heavily minority districts are the big losers in New Mexico. The smaller and the less urbanized districts had 16 to 20 percent greater total per-pupil revenues before reform; their relative advantage declined to 10 to 14 percent by 1975. Whereas the less white districts averaged about 4 percent greater per-pupil total revenues in 1972, they averaged about 4 percent less by 1975. The distribution of total revenues per pupil between more and less poverty-prone populations has changed little with reform.

Reform appears to have had little effect on the distribution of total expenditures among different types of districts. There has been a mild shift from slightly higher instructional expenditures in the less urban districts to slightly higher instructional expenditures per pupil in the more urban districts. Otherwise, reform has brought about few changes.

As for adjusted tax rates, the smaller, the less urban, and the more minority districts gained on their counterparts with reform. Adjusted local property tax rates tended to be higher in smaller and in less urban districts, and in districts whose populations had a lower percent white.

Districts whose populations included relatively many poor people had an average tax rate roughly equal to the average tax rate in districts serving relatively few poor people.

#### SUMMARY AND CONCLUSIONS

All in all, New Mexico's reform appears to have had surprisingly little effect on the distributions of per-pupil revenues and instructional expenditures, and on the relationships between those variables and districts' characteristics.

Disparities in general revenue per pupil, in local plus state revenue per pupil, and in instructional expenditures per pupil have not been reduced at all. Disparities in local plus PL874 revenue per pupil, in local plus state plus PL874 revenue per pupil, and in total revenue per pupil have been somewhat reduced, but the reductions in disparities in the latter two variables are small. It appears that the primary effect of the reform, so far as distributional equality is concerned, has been to "equalize" PL874 revenues.

Fiscal neutrality has generally improved in New Mexico, but adjusted wealth remains a significant predictor of all five revenue measures and of instructional expenditures. Reform has improved income neutrality with regard to some measures, but other measures have become more closely related to income. General revenue per pupil, total revenue per pupil, and per-pupil instructional expenditures tend to be significantly higher in the higher-income districts. General plus PL874 revenue per pupil, local plus state revenue per pupil, and per-pupil local plus state plus PL874 revenue are independent of household income per pupil. All variables depended on adjusted tax rates before reform; those relationships have been fully eliminated by the reform.

The larger districts, the more urban districts, and the districts serving less minority populations have gained on their smaller, less urban, and less white counterparts. But their gains have been small and the larger districts and the more urban districts still have lower average revenues and instructional expenditures. After reform,

average revenues and expenditures in the districts serving less white populations were generally lower than in the districts serving less minority populations. The reverse had been true before reform. However, none of the above-noted shifts have been very large.

These results are quite surprising. After all, New Mexico's pre-reform plan essentially provided flat grants per student. And flat grant systems are, at best, only mildly equalizing and do nothing to offset the fiscal advantages of wealthier and higher-income districts. The state shifted to a plan that closely approximates full state assumption. Districts must levy the mandated property tax rate. Their revenue needs are determined by formula. And the state makes up the difference between the formula-determined revenue needs and the proceeds of the local tax levy. Why did a shift from the most mildly equalizing of state aid plans to one that fully funds revenue needs fail to bring about greater equality? And how is it that a plan that precludes local discretion regarding tax rates and revenue needs fails to achieve fiscal neutrality and allows (some) revenues and instructional expenditures to vary with income?

We suspect that the answer to these questions lies in the teachers' experience and education adjustment factor. Prior to reform, some New Mexico districts took advantage of their fiscal opportunities and raised greater per-pupil revenues than did other districts. Their relatively high revenues, in turn, allowed them to employ more highly educated and experienced teachers than the lower-wealth districts could afford. Their teachers' experience and education index was, accordingly, relatively high in the post-reform years, raising their revenue entitlements according to the formula.

Because the data we obtained did not provide information on teachers' experience and education adjustment factors, we could not explicitly test this hypothesis. However, it is consistent with the available data. Note also that this feature of New Mexico's plan will have a tendency to "lock in" revenue disparities whether or not they are associated with wealth. A district that enters the reform



era with a relatively highly educated/experienced staff will have a relatively high adjustment factor, generating relatively high revenues that will allow it to retain a relatively highly qualified staff. Conversely, a district whose average staff were relatively less qualified at the outset of reform would have a relatively low adjustment factor. Its revenues would be accordingly lower, precluding improvements in the qualifications of its staff; that is, it could not as readily hire highly qualified new teachers. This feature of the plan thus appears to be counterproductive in terms of the ultimate objective of reform: reducing interdistrict disparities in the quality of education offered to children.

## Chapter 8

### INTERSTATE COMPARISONS AND CONCLUSIONS

This chapter reviews our findings, concentrating on the similarities and differences among the five states' experiences with reform, and presents our general conclusions. We focus on the effects of reform on the distributions of three variables: general plus PL874 revenues per pupil, instructional expenditures per pupil, and adjusted tax rates. The other revenue variables' distributions are generally quite similar to those of general plus PL874 revenue per pupil and suggest the same conclusions.

#### THE EFFECTS OF REFORM ON DISTRIBUTIONAL EQUALITY

Table 36 presents the coefficients of variation for the distributions of general plus PL874 revenue per pupil, instructional expenditures per pupil, and adjusted tax rates. The results suggest three conclusions:

- o Reform efforts in these five states have brought about somewhat more equal distributions of per-pupil revenues.
- o Reform has done little, if anything, to reduce disparities in instructional expenditures per pupil in any of the five states.
- o However, reform has generally led to more equal distributions of adjusted tax rates.

#### The Distribution of Revenues Per Pupil

Only in New Mexico and California unified districts does the coefficient of variation for the revenue variable drop substantially with reform; and roughly half the decline in New Mexico reflects the treatment of PL874 revenue in that state's reform system. The change in the basic structure of New Mexico's plan accounts for roughly half of the drop in the coefficient of variation.

Table 36

COEFFICIENTS OF VARIATION FOR GENERAL + PL874 REVENUES,  
INSTRUCTIONAL EXPENDITURES, AND ADJUSTED TAX RATES

State	Year						
	1970 -71	1971 -72	1972 -73	1973 -74	1974 -75	1975 -76	1976 -77
General + PL874 revenue:							
California, elementary	.22	.23	.22	.21	.20	.18	.18
California, high school	.17	.18	.18	.19	.17	.17	.16
California, unified	.18	.19	.18	.16	.14	.14	.13
Florida			.12			.13	
Kansas, ADM below 400			.23	.21	.22		
Kansas, ADM 400 to 1299			.21	.18	.20		
Kansas, ADM 1300 and above			.12	.11	.10		
Michigan		.15	.17	.15	.14	.16	
New Mexico			.17	.18	.12	.10	
Instructional expenditures:							
California, elementary	.17	.17	.17	.16	.18	.16	.15
California, high school	.14	.15	.15	.14	.16	.15	.14
California, unified	.17	.17	.18	.17	.18	.15	.13
Florida			.12			.14	
Kansas, ADM below 400			.21	.21	.20		
Kansas, ADM 400 to 1299			.19	.17	.19		
Kansas, ADM 1300 and above			.11	.09	.09		
New Mexico			.11	.11	.10	.09	
Adjusted tax rates:							
California, elementary	.22	.23	.23	.22	.17	.17	.17
California, high school	.17	.17	.17	.15	.13	.14	.14
California, unified	.17	.16	.17	.15	.14	.13	.12
Florida			.11			.10	
Kansas, ADM below 400			.28	.20	.19		
Kansas, ADM 400 to 1299			.28	.23	.18		
Kansas, ADM 1300 and above			.22	.23	.15		
Michigan		.20	.24	.18	.15	.14	
New Mexico			.29	.31	.10	.00	

Smaller, but nontrivial, improvements in the revenue distribution are found in California's elementary districts and in Kansas's larger districts. Reform has not much affected the distributions of general plus PL874 revenues per pupil in California's high school districts, in Florida, in Kansas's smaller or medium-sized districts, or in Michigan.

To be sure, Florida and New Mexico attempt to equalize cost-adjusted and need-adjusted distributions of revenues, and Michigan does not address the revenue equalization issue. Nonetheless, their reform plans yield distributions of per-pupil revenues that are quite similar to their pre-reform distributions and, as we shall see below, the same kinds of districts are found in the upper and lower portions of the distribution. In each of these states, the districts that had relatively high revenues before reform have relatively high revenues after reform.

It may be that a distribution of revenues is "inequitable" when it stems from one finance system and "equitable" or, at least, less inequitable when it is generated by another. But most of the arguments put forward by reform proponents suggest that the distribution itself is at issue. From that perspective, only New Mexico and California, in its unified districts, have substantially improved the distribution of revenues. The other states have changed the rules whereby districts raise local revenues and receive state general aid, but they have not much changed the consequences.

#### The Distribution of Instructional Expenditures Per Pupil

Instructional expenditures per pupil are generally no more equally distributed after reform than they were before. The coefficient of variation falls a point or two in some cases and grows a point or two in others, but there are no impressive changes in either direction. Whatever reform has done to change the distributions of revenues per pupil, those changes have not been translated into changes in the distributions of instructional expenditures per pupil.

It is interesting to note that, with only a couple of exceptions, the coefficients of variation for the distributions of instructional expenditures per pupil are smaller than those for the distributions of general plus PL874 revenues per pupil. It appears that, in all five states, districts whose revenues are relatively high allocate a relatively large share of those revenues to noninstructional purposes. Furthermore, in those cases where the coefficient of variation for per-pupil general plus PL874 revenues declined, there were smaller declines in the coefficient of variation for instructional expenditures. This suggests that when reform results in substantial increases in a previously low-spending district's revenues, it tends to put those funds to noninstructional uses. These results are consistent with previous studies of school districts' expenditure behavior (Alexander, 1974; Barro and Carroll, 1975; Carroll, 1976) which found that as districts' per-pupil budgets increase, they allocate decreasing proportions of their budgets to expenditures for teachers.

Taken together, these observations suggest the following hypothesis: School districts generally agree on what constitutes an acceptable instructional program and exert every effort to provide one. In doing so, districts with low revenue per pupil make do with disproportionately few noninstructional resources. Districts with higher revenue per pupil provide a somewhat better instructional program, but devote much larger shares of their budgets to noninstructional purposes. Similarly, when a previously low-revenue district's budget is increased, it provides a somewhat improved instructional program, but devotes a much larger share of its additional revenues to "catching up" in terms of noninstructional expenditures.

What all this implies depends on one's view of the relationship between noninstructional expenditures and the objectives of reform. Some noninstructional expenditures (e.g., for adult education) appear to be peripheral to the main reform themes. Others, however, may directly contribute to achieving reform objectives. Improving plant

operation and maintenance, for example, may be critical in a district where previous funding deficiencies precluded adequate upkeep on buildings and equipment. At one extreme, if all school resources are of equal import, it does not matter whether or not districts use for instruction the additional revenues they derive from reform. At the other extreme, if educational quality is determined by instructional expenditures, and if the objective of reform is to equalize the quality of the education afforded students who live in different places, then much of the additional resources that states have put into their reform efforts have been dissipated.

#### The Distribution of Adjusted Tax Rates

The reform enacted by three of the five states--Kansas and Michigan are the exceptions--led to reductions in adjusted tax rates. And in every state except Florida, coefficients of variation for the distributions of adjusted tax rates fell by more than 25 percent between pre-reform and post-reform years. New Mexico entirely eliminated variation in local educational property tax rates. Even in Michigan, where reform was accompanied by an increase in the weighted average adjusted tax rate of about 6 percent, the distribution of adjusted tax rates was dramatically equalized by reform.

#### THE EFFECTS OF REFORM ON FISCAL NEUTRALITY

We examined the effects of reform on fiscal neutrality from several different perspectives. Our results suggest the following conclusions:

- o Reform has improved the wealth neutrality of revenues. Instructional expenditures per pupil are generally as closely related to property tax bases after reform as they had been before.
- o While income neutrality has improved in some cases, the distributions of revenues and instructional expenditures per pupil are, in other cases, more income-biased after

reform than they were before. Some school finance reforms have worsened the relationship that originally gave rise to the reform movement.

- o Ex ante fiscal neutrality has improved in some cases and worsened in others.

#### Wealth Neutrality

The most widely accepted version of the fiscal neutrality concept refers to the relationship between districts' revenues (or expenditures) and their property tax bases. Fiscal neutrality, according to this view, requires that revenues per pupil be independent of property tax bases. Virtually every contemporary reference to fiscal neutrality has this version of the concept in mind.

The results presented in Table 37 reflects this notion of fiscal neutrality. They are the elasticities of general plus PL874 revenue per pupil, instructional expenditures per pupil, and adjusted tax rates with respect to adjusted wealth per pupil. Higher elasticities imply a closer association between revenues, expenditures, or tax rates and wealth.

Post-reform revenue elasticities are below those for the pre-reform period in California, in Kansas's large districts, and in New Mexico. The results for Florida, Kansas's small and medium-sized districts, and Michigan show little or no improvement in wealth neutrality.

Turning to the results for instructional expenditures, there was some improvement in Kansas's small and medium-sized districts. Otherwise, the post-reform elasticities in each case are not much different from the pre-reform values.

The tendency for high-wealth districts to have relatively low tax rates (a negative elasticity of adjusted tax rates with respect to wealth) has been lessened in California's high school and unified districts and in all three types of Kansas districts.

Table 37

ELASTICITIES OF GENERAL + PL874 REVENUES PER PUPIL,  
INSTRUCTIONAL EXPENDITURES PER PUPIL, AND ADJUSTED TAX RATES  
WITH RESPECT TO ADJUSTED WEALTH PER PUPIL

State	Year						
	1970 -71	1971 -72	1972 -73	1973 -74	1974 -75	1975 -76	1976 -77
General + PL874 revenue:							
California, elementary	.195	.214	.214	.202	.180	.150	.148
California, high school	.380	.399	.396	.388	.329	.331	.307
California, unified	.289	.320	.332	.250	.236	.203	.205
Florida			.199			.214	
Kansas, ADM below 400			.471	.349	.444		
Kansas, ADM 400 to 1299			.420	.326	.352		
Kansas, ADM 1300 and above			.219	.111	.141		
Michigan		.253	.235	.236	.233	.238	
New Mexico			.147	.179	.102	.046	
Instructional expenditures:							
California, elementary	.096	.105	.108	.090	.117	.101	.104
California, high school	.266	.267	.286	.261	.266	.268	.247
California, unified	.224	.235	.256	.249	.248	.217	.179
Florida			.183			.213	
Kansas, ADM below 400			.381	.371	.328		
Kansas, ADM 400 to 1299			.352	.326	.285		
Kansas, ADM 1300 and above			.127	.145	.145		
New Mexico			.058	.046	.047	.045	
Adjusted tax rates:							
California, elementary	-.082	-.098	-.114	.021	-.024	-.060	-.065
California, high school	-.259	-.254	-.283	.096	-.018	-.066	-.141
California, unified	-.206	-.204	-.239	.036	-.029	-.097	-.089
Florida			.025			-.038	
Kansas, ADM below 400			-.471	.269	-.124		
Kansas, ADM 400 to 1299			-.543	.122	-.046		
Kansas, ADM 1300 and above			-.277	.089	-.086		
Michigan		.111	.122	.131	.096	.081	
New Mexico			.252	-.223	-.001	.000	



### Income Neutrality

The school finance reform movement originally grew out of a concern for the distribution of revenues among districts serving students of various income levels. The association between districts' revenues per pupil and the average income of the populations they serve approximates this concept of fiscal neutrality. Table 38 presents the elasticities of general plus PL874 revenues per pupil, instructional expenditures per pupil, and adjusted tax rates with respect to household income per pupil.

The income neutrality of per pupil revenues was improved by reform in Michigan and California, particularly in the latter's high school and unified districts, and was worsened by reform in all three types of Kansas's districts. Florida's reform introduced substantial income bias into what had been an income-neutral distribution of revenues. New Mexico's district revenues were independent of income both before and after reform.

Reform has improved the income neutrality of the distributions of instructional expenditures in California's high school and unified districts. More income-biased distributions of instructional expenditures have resulted from reform in Florida, in Kansas's small districts and, possibly, in New Mexico.

Among Kansas's small and medium-sized districts, the higher-income districts tended to levy lower tax rates before reform (a negative elasticity of adjusted tax rates with respect to income). Reform reversed that relationship. Reform seems not to have affected the relationship between adjusted tax rates and income in Kansas's large districts or in the other states.

Only California's unified districts and New Mexico's districts have an income-neutral distribution of revenues that was income-neutral before reform. Among the post-reform distributions of instructional expenditures, only California high school districts exhibit income neutrality. In three cases, Florida and Kansas's small and medium-sized districts, reform introduced more income bias into the distribution of revenues. Aside from the improvements registered in

Table 38

ELASTICITIES OF GENERAL + PL874 REVENUES PER PUPIL,  
INSTRUCTIONAL EXPENDITURES PER PUPIL, AND ADJUSTED TAX RATES  
WITH RESPECT TO HOUSEHOLD INCOME PER PUPIL

State	Year						
	1970 -71	1971 -72	1972 -73	1973 -74	1974 -75	1975 -76	1976 -77
General + PL874 revenue:							
California, elementary	.197	.199	.198	.197	.185	.160	.149
California, high school	.268	.274	.255	.262	.219	.184	.134
California, unified	.210	.185	.099	.151	.101	.106	.093
Florida			.087			.306	
Kansas, ADM below 400			.176	.204	.240		
Kansas, ADM 400 to 1299			.227	.275	.375		
Kansas, ADM 1300 and above			.201	.240	.213		
Michigan		.274	.252	.251	.233	.150	
New Mexico			.044	.017	.001	.000	
Instructional expenditures:							
California, elementary	.145	.146	.152	.135	.136	.126	.124
California, high school	.153	.150	.153	.115	.099	.072	.077
California, unified	.183	.204	.182	.131	.135	.118	.110
Florida			.099			.348	
Kansas, ADM below 400			.159	.232	.226		
Kansas, ADM 400 to 1299			.273	.331	.326		
Kansas, ADM 1300 and above			.291	.264	.233		
New Mexico			.180	.177	.198	.209	
Adjusted tax rates:							
California, elementary	-.004	-.021	-.026	.122	.068	.004	-.012
California, high school	-.085	-.071	-.115	.179	.090	.004	-.063
California, unified	-.012	-.018	.012	.129	-.008	.012	-.001
Florida			.078			-.006	
Kansas, ADM below 400			-.011	.249	.184		
Kansas, ADM 400 to 1299			-.227	.346	.266		
Kansas, ADM 1300 and above			.411	.644	.442		
Michigan		.266	.277	.270	.247	.251	
New Mexico			.094	-.142	.057	.000	

California's high school and unified districts, reform has generally worsened fiscal neutrality defined in terms of the relationship between revenues, or instructional expenditures, and household income.

#### Ex Ante Fiscal Neutrality

Table 39 presents the elasticities of general plus PL874 revenues per pupil and instructional expenditures per pupil on adjusted tax rates. These results indicate the degree of ex ante fiscal neutrality achieved by each state's reform. Ex ante fiscal neutrality is not violated if high-wealth or high-income districts choose to bear heavier tax burdens and thereby raise greater revenues. To the extent that variations in revenues or expenditures are explained by variations in adjusted tax rates, equal efforts are bringing forth equal returns.

Among California's high school and unified districts and in Kansas's small and medium-sized districts, higher-taxing districts had lower revenues before reform (the elasticity of revenues with respect to the tax rate was negative). Reform reversed the relationship, a clear improvement in ex ante fiscal neutrality. Ex ante fiscal neutrality of the revenue distribution was also improved in Kansas's large districts and in Michigan with reform. New Mexico, by eliminating all variation in local effort, reduced ex ante fiscal neutrality to zero. And Florida substantially lessened the relationship between districts' efforts and their rewards.

Kansas improved the ex ante fiscal neutrality of instructional expenditures. Otherwise, ex ante fiscal neutrality of the distributions of instructional expenditures were not affected (California's high school and unified districts) or they substantially worsened (California's elementary districts, Florida, and New Mexico).

#### WINNERS AND LOSERS

What kinds of districts and students gained from reform? Who lost? To answer these questions, we ranked the students in each state according to the size of the district they attended, and

Table 39

ELASTICITIES OF GENERAL + PL874 REVENUES PER PUPIL AND  
INSTRUCTIONAL EXPENDITURES PER PUPIL WITH RESPECT TO  
ADJUSTED TAX RATES

State	Year						
	1970 -71	1971 -72	1972 -73	1973 -74	1974 -75	1975 -76	1976 -77
General + PL874 revenue:							
California, elementary	.167	.138	.135	.434	.385	.159	.138
California, high school	-.222	-.284	-.275	.494	.341	.232	.107
California, unified	-.186	-.207	-.351	.216	.152	.039	.037
Florida			.581			.145	
Kansas, ADM below 400			-.097	.549	.145		
Kansas, ADM 400 to 1299			-.209	.420	.168		
Kansas, ADM 1300 and above			.141	.322	.353		
Michigan		.451	.498	.574	.636	.667	
New Mexico			.306	-.217	.201	.000	
Instructional expenditures:							
California, elementary	.259	.235	.257	.422	.300	.073	.029
California, high school	-.057	-.048	-.097	.225	.070	-.047	-.103
California, unified	-.045	-.056	-.113	.240	.126	-.007	-.003
Florida			.467			.084	
Kansas, ADM below 400			-.125	.491	.093		
Kansas, ADM 400 to 1299			-.201	.376	.204		
Kansas, ADM 1300 and above			.223	.242	.317		
New Mexico			.187	-.143	.014	.000	

calculated the ratio of the mean general plus PL874 revenues per pupil (instructional expenditures per pupil, and adjusted tax rates) accruing to students below the median to the mean for students above the median. Table 40 presents the results. Tables 41, 42 and 43 present similar results for distributions between districts categorized by the percent of the district's population residing in urban areas, the percent of the district's population who are white, and the percent of the district's population whose family income is below the poverty level.

In any case, an entry greater than one implies that students attending districts below the median on the relevant characteristic averaged greater amounts of the variable in question than did students attending districts above the median on that characteristic. Entries less than one imply the converse.

The results displayed in Tables 40 through 43 suggest that:

- o Reform has generally not affected the distributions of revenues, instructional expenditures, or adjusted tax rates among different kinds of districts.

There are a few exceptions to this general statement. Florida's reform, for example, has channeled relatively greater revenues per pupil to its larger, its more urban, and its less poverty-prone districts. Kansas's reform has shifted per-pupil revenues toward the more urban, the less white, and the less poverty-prone of its small districts. And reform in New Mexico has shifted per-pupil revenues toward the state's more urban and more white districts. But these are exceptions, in that we find the ratio of per pupil revenues in relatively small districts (vis-a-vis relatively large districts) largely unaffected by reform in eight of the nine cases. Similarly, reform has not much affected the division of revenues between less and more urban districts in six of nine cases (Table 41), between less and more white districts in seven of nine cases (Table 42), and between districts where the incidence of poverty is low and those where it is high in seven of nine cases (Table 43).

Table 40

RATIO OF GENERAL + PL874 REVENUES PER PUPIL, INSTRUCTIONAL EXPENDITURES  
PER PUPIL, AND ADJUSTED TAX RATES FOR STUDENTS IN BELOW  
MEDIAN SIZE DISTRICTS TO STUDENTS IN ABOVE MEDIAN SIZE DISTRICTS

Variable	Year						
	1970 -71	1971 -72	1972 -73	1973 -74	1974 -75	1975 -76	1976 -77
General + PL874 Revenues:							
California, elementary	1.04	1.05	1.06	1.04	1.08	1.07	1.05
California, high school	1.05	1.05	1.10	1.11	1.02	1.07	1.07
California, unified	1.00	0.98	0.92	1.00	0.98	0.98	1.00
Florida			0.97			0.89	
Kansas, ADM below 400			1.32	1.23	1.30		
Kansas, ADM 400 to 1299			1.16	1.13	1.12		
Kansas, ADM 1300 and above			0.96	0.91	0.93		
Michigan		0.90	0.93	0.90	0.91	0.91	
New Mexico			1.09	1.12	1.06	1.05	
Instructional expenditures:							
California, elementary	0.98	0.99	0.98	0.96	1.02	1.01	1.01
California, high school	1.02	1.02	1.05	1.07	1.02	1.05	1.02
California, unified	0.96	0.97	0.95	0.94	0.98	1.01	0.99
Florida			0.96			0.89	
Kansas, ADM below 400			1.25	1.21	1.21		
Kansas, ADM 400 to 1299			1.12	1.12	1.14		
Kansas, ADM 1300 and above			0.90	0.93	0.94		
New Mexico			1.07	1.06	1.04	1.04	
Adjusted tax rate:							
California, elementary	0.86	0.85	0.84	0.89	0.93	0.91	0.90
California, high school	0.91	0.90	0.88	0.99	0.95	0.98	0.97
California, unified	1.00	0.98	1.00	0.97	0.93	0.96	0.96
Florida			0.93			0.96	
Kansas, ADM below 400			0.95	1.17	0.99		
Kansas, ADM 400 to 1299			0.93	0.93	0.97		
Kansas, ADM 1300 and above			0.78	0.73	0.80		
Michigan		0.88	0.92	0.87	0.88	0.88	
New Mexico			1.07	1.16	0.97	1.00	

Table 41

RATIO OF GENERAL + PL874 REVENUES PER PUPIL, INSTRUCTIONAL EXPENDITURES  
PER PUPIL, AND ADJUSTED TAX RATES FOR STUDENTS IN BELOW  
MEDIAN % URBAN DISTRICTS TO STUDENTS IN ABOVE MEDIAN % URBAN DISTRICTS

Variable	Year						
	1970 -71	1971 -72	1972 -73	1973 -74	1974 -75	1975 -76	1976 -77
General + PL874 Revenues:							
California, elementary	0.93	0.93	0.93	0.94	0.96	0.95	0.96
California, high school	0.96	0.97	0.99	1.00	0.98	1.02	1.02
California, unified	0.95	0.93	0.89	0.96	0.95	0.95	0.97
Florida			0.96			0.88	
Kansas, ADM below 400			1.10	1.09	0.99		
Kansas, ADM 400 to 1299			1.11	1.04	1.11		
Kansas, ADM 1300 and above			0.95	0.90	0.94		
Michigan		0.90	0.93	0.88	0.88	0.88	
New Mexico			1.09	1.10	1.04	1.01	
Instructional expenditures:							
California, elementary	0.93	0.91	0.91	0.92	0.96	0.95	0.94
California, high school	0.99	0.99	0.99	1.02	1.05	1.05	1.05
California, unified	0.96	0.98	0.96	0.95	0.98	1.01	1.03
Florida			0.96			0.85	
Kansas, ADM below 400							
Kansas, ADM 400 to 1299			1.07	1.05	1.05		
Kansas, ADM 1300 and above			0.89	0.93	0.94		
New Mexico			1.02	1.02	0.99	0.97	
Adjusted tax rate:							
California, elementary	0.88	0.89	0.90	0.90	0.93	0.95	0.95
California, high school	0.98	0.97	1.00	0.99	1.00	1.06	1.01
California, unified	1.04	1.02	1.05	1.00	0.93	0.98	0.97
Florida			0.95			0.99	
Kansas, ADM below 400			1.00	1.04	0.95		
Kansas, ADM 400 to 1299			0.89	0.96	0.94		
Kansas, ADM 1300 and above			0.75	0.72	0.80		
Michigan		0.89	0.93	0.86	0.86	0.87	
New Mexico			1.03	1.08	0.97	1.00	

Table 42

RATIO OF GENERAL + PL874 REVENUES PER PUPIL, INSTRUCTIONAL EXPENDITURES  
PER PUPIL, AND ADJUSTED TAX RATES FOR STUDENTS IN BELOW  
MEDIAN % WHITE DISTRICTS TO STUDENTS IN ABOVE MEDIAN % WHITE DISTRICTS

Variable	Year						
	1970 -71	1971 -72	1972 -73	1973 -74	1974 -75	1975 -76	1976 -77
General + PL874 Revenues:							
California, elementary	1.01	1.01	1.02	1.02	1.00	1.01	1.02
California, high school	1.07	1.06	1.05	1.07	1.05	1.05	1.06
California, unified	1.05	1.06	1.14	1.04	1.06	1.05	1.04
Florida			1.06			1.05	
Kansas, ADM below 400			0.84	0.91	0.99		
Kansas, ADM 400 to 1299			0.90	0.93	0.94		
Kansas, ADM 1300 and above			0.98	1.03	0.99		
Michigan		1.04	1.00	1.04	1.03	1.03	
New Mexico			1.08	1.06	0.99	0.98	
Instructional expenditures:							
California, elementary	1.04	1.04	1.04	1.05	1.02	1.02	0.99
California, high school	1.08	1.06	1.06	1.06	1.06	1.10	1.09
California, unified	1.08	1.08	1.10	1.10	1.04	1.01	0.99
Florida			1.06			1.10	
Kansas, ADM below 400			0.91	0.91	0.94		
Kansas, ADM 400 to 1299			0.92	0.93	0.92		
Kansas, ADM 1300 and above			1.01	0.98	0.97		
New Mexico			1.00	1.00	0.98	0.97	
Adjusted tax rate:							
California, elementary	1.01	1.02	1.02	1.02	1.02	1.04	1.06
California, high school	0.94	0.92	0.91	0.95	0.96	0.98	1.01
California, unified	0.99	0.99	0.98	1.02	1.07	1.02	1.04
Florida			1.05			1.05	
Kansas, ADM below 400			1.12	0.96	1.03		
Kansas, ADM 400 to 1299			1.11	1.03	1.07		
Kansas, ADM 1300 and above			1.16	1.18	1.11		
Michigan		0.99	0.93	1.01	1.02	1.01	
New Mexico			1.17	1.18	1.04	1.00	



Table 43

RATIO OF GENERAL + PL874 REVENUES PER PUPIL, INSTRUCTIONAL EXPENDITURES  
PER PUPIL, AND ADJUSTED TAX RATES FOR STUDENTS IN BELOW  
MEDIAN % POOR DISTRICTS TO STUDENTS IN ABOVE MEDIAN % POOR DISTRICTS

Variable	Year						
	1970 -71	1971 -72	1972 -73	1973 -74	1974 -75	1975 -76	1976 -77
General + PL874 Revenues:							
California, elementary	1.15	1.16	1.15	1.10	1.10	1.08	1.08
California, high school	1.10	1.09	1.09	1.07	1.07	1.03	1.02
California, unified	0.99	0.97	0.93	1.00	0.97	0.98	0.98
Florida			1.06			1.18	
Kansas, ADM below 400			0.97	1.08	1.20		
Kansas, ADM 400 to 1299			1.00	0.99	1.01		
Kansas, ADM 1300 and above			1.06	1.08	1.07		
Michigan		1.06	1.10	1.05	1.06	1.06	
New Mexico			0.98	0.99	1.00	1.01	
Instructional expenditures:							
California, elementary	1.09	1.10	1.11	1.07	1.11	1.12	1.13
California, high school	1.05	1.05	1.06	1.03	1.02	1.00	0.99
California, unified	0.96	0.97	0.95	0.94	0.98	1.00	1.03
Florida			1.06			1.18	
Kansas, ADM below 400			1.05	1.09	1.11		
Kansas, ADM 400 to 1299			1.01	1.00	1.01		
Kansas, ADM 1300 and above			1.09	1.07	1.06		
New Mexico			1.01	1.00	1.04	1.04	
Adjusted tax rate:							
California, elementary	1.17	1.17	1.16	1.17	1.10	1.07	1.05
California, high school	1.09	1.06	1.06	1.09	1.06	1.00	0.98
California, unified	1.07	1.07	1.09	1.04	0.97	1.01	0.99
Florida			0.97			0.99	
Kansas, ADM below 400			0.90	1.05	1.08		
Kansas, ADM 400 to 1299			1.05	1.07	1.02		
Kansas, ADM 1300 and above			1.24	1.20	1.12		
Michigan		1.18	1.26	1.14	1.11	1.11	
New Mexico			0.99	0.98	1.05	1.00	

There are even fewer exceptions in the case of instructional expenditures. In Florida, reform has led to a relative decline in the per-pupil instructional expenditures of smaller, of less urban, and of more poverty-prone districts. And among Kansas's small districts, those in which the incidence of poverty is relatively low enjoyed a relative gain in instructional expenditures per pupil. None of the remaining cases show changes in excess of five percentage points between pre-reform and post-reform years.

The one set of results that do reveal substantial reform effects pertain to the distribution of adjusted tax rates between districts in which the incidence of poverty is relatively low and those where it is relatively high. Before reform, adjusted tax rates in all three types of California's districts, in Kansas's medium-sized and large districts, and in Michigan, were substantially higher in districts where the incidence of poverty was relatively low. In every case, reform was accompanied by relative reductions in these tax burdens and in four cases--California's elementary and unified districts, Kansas's large districts, and Michigan--the reductions were large. Among Kansas's small districts, those less poverty-prone enjoyed relatively low tax rates before reform but found themselves facing relatively high tax rates after reform.

Elsewhere, only New Mexico (which fully equalized tax rates), Kansas's small districts (where the relative advantage of relatively white districts was largely eliminated by reform), and California's unified districts (where reform shifted the relative advantage from more urban to less urban districts) depart from the general pattern of little change.

#### CONCLUSIONS

School finance reform was viewed as an educational equity issue by its original proponents. They assumed that greater spending was associated with better schooling, and disparities in school spending accordingly implied disparities in educational quality. They also assumed that poor people lived in property-poor districts, at least

more so than in property-rich districts. Finally, they observed that state finance systems were only mildly equalizing at best, and argued that existing systems discriminated against poor children by affording them an education that was inferior to that of better-off children.

These arguments were supported by the *Serrano* decision, and efforts to revise state school finance systems soon spread across the nation. The issue has aroused extensive public debate in most states and legislative or judicial action in many. At least 22 states have substantially modified their school finance systems in response to reform pressures.

Judging by the experiences of the five states received here, however, the reform movement's victories have proved somewhat hollow. These states have made some progress toward a more equal distribution of revenues per pupil. But these improvements have been generally small and, in many cases, there have been none at all. And if, as seems likely, instructional expenditures per pupil are more closely linked to educational quality than are revenues per pupil, the outlook is even more bleak. Reform has done nothing to better equalize the distribution of per-pupil instructional expenditures.

How have poor children or, more accurately, districts serving disproportionate numbers of poor children, fared in comparison with their higher-income counterparts? Not well! California's reform did reduce the associations between revenues and instructional expenditures, on the one hand, and the average income of the population served by a district, on the other hand. But even after reform those variables remain significantly associated with household income. And in Florida and Kansas, reform introduced significant income bias into what had been income-neutral distributions of per-pupil revenues and instructional expenditures. Similarly, the distributions of revenues, and of instructional expenditures, generally shifted toward districts serving populations in which the incidence of poverty was below the median and away from districts that were heavily impacted

by poverty. If anything, reform has favored districts serving higher-income populations relative to districts serving lower-income populations.

Reform has not much improved either ex ante fiscal neutrality or wealth neutrality. California districts' revenues are somewhat more closely related to their efforts and less closely related to their wealth after reform than they were before, but the improvements in either case are far from impressive. And elsewhere, reform has not brought about distributions of revenues or instructional expenditures that better reflect fiscal efforts or reflect wealth less.

All in all, reforms in these five states have not dramatically reduced the problems that originally gave rise to the reform movement. There are some bright spots--some improvements in educational equity. But, overall, each state's post-reform distributions of revenues and instructional expenditures are remarkably similar to its pre-reform distributions. Viewed from the perspective of educational equity, much remains to be done.

These reforms have made considerable progress toward other objectives, however. From the perspective of tax equity, they appear to have been quite successful. In every case except Florida, disparities in adjusted tax rates have been dramatically reduced. And the distributions of adjusted tax rates between large and small districts, between more and less urban districts, between districts serving relatively many and relatively few whites, and between more and less poverty-prone districts generally became more equal with reform. Reform seems to have been a generally effective device for equalizing the burdens of supporting education.

It also appears that reform has generally furthered the objective of increasing statewide total spending for education. In principle, equalization could have taken the form of redistributing revenues from high-spending districts to low-spending districts. Such an approach, however, is presumably unworkable politically. Reform states have instead chosen to increase state educational aid, attempting thereby to raise lower-spending districts' revenues

without significantly reducing those of higher-spending districts. The result is to increase the share of state revenues going to public education above what they would otherwise have been. California, for example, increased state contributions per pupil to districts' general funds by 48 percent when it reformed its system, and the first year of reform in Kansas saw a 44 percent increase in state per-pupil general fund support. Reform-year increases in state general aid per pupil were less dramatic in Michigan and New Mexico, 11 and 14 percent respectively; nonetheless, they represent substantial increases in the costs of education to those states. (We lack data on Florida's general aid to education in its first reform year.) To be sure, state support for education might have increased somewhat even if the states' finance systems had not been modified. But legislators' reluctance to tax the residents of high-spending districts to support education in lower-spending districts has so far required that equalization, if it is to be obtained at all, be obtained by leveling up the distribution of revenues. This approach, in turn, requires increased state contributions to education.



Appendix

STATISTICAL TABLES

Table A.1  
DISTRIBUTION OF GENERAL REVENUE PER PUPIL  
IN CALIFORNIA ELEMENTARY DISTRICTS

Measure	1970-71	1971-72	1972-73	Unweighted 1973-74	1974-75	1975-76	1976-77
Percentile							
100th	4357.00	5174.46	6468.40	14815.00	8734.07	6878.68	7046.79
95th	1605.65	1706.84	1894.01	2148.38	2294.73	2366.48	2586.55
75th	926.82	980.20	1082.87	1228.67	1326.97	1423.58	1555.06
50th (median)	697.51	731.30	814.13	943.66	1039.95	1139.35	1265.11
25th	607.17	619.80	700.00	828.62	911.89	1013.99	1129.37
5th	523.12	530.90	584.58	701.99	799.16	899.16	1002.92
1st	373.08	419.54	444.00	456.31	554.30	631.86	722.57
Range	3983.92	4754.92	6024.40	14358.69	8179.77	6246.81	6724.22
Restricted range	1082.53	1175.94	1309.44	1446.39	1495.57	1467.33	1583.63
Restricted range ratio	2.069	2.215	2.240	2.060	1.871	1.632	1.579
Mean deviation from median	237.47	252.56	287.48	330.54	337.98	320.35	344.41
Relative deviation from median	0.340	0.345	0.353	0.350	0.325	0.281	0.272
Mean	837.83	870.38	977.86	1150.42	1241.44	1325.30	1460.66
Standard deviation	398.692	411.195	522.537	747.815	668.446	574.484	628.296
Coefficient of variation	0.476	0.472	0.534	0.650	0.538	0.433	0.430
Mean deviation from mean	263.92	278.91	321.50	374.27	381.51	357.23	382.14
Relative deviation from mean	0.315	0.320	0.329	0.325	0.307	0.270	0.262
Gini coefficient	0.213	0.217	0.224	0.223	0.210	0.184	0.180
Regression results							
Adj. wealth: Linear F	1130.676	1289.139	1251.070	891.704	470.405	536.746	563.767
Elasticity	0.222	0.248	0.285	0.300	0.206	0.143	0.150
Quadratic F	730.205	684.528	655.211	514.065	278.539	398.746	419.496
Elasticity	0.313	0.297	0.341	0.186	0.300	0.241	0.250
Income: Linear F	29.915	35.356	50.075	58.375	46.260	58.500	73.004
Elasticity	0.023	0.023	0.026	0.029	0.026	0.040	0.044
Quadratic F	84.276	65.735	105.088	144.291	143.583	120.151	139.193
Elasticity	0.164	0.140	0.176	0.214	0.198	0.169	0.167
Adj. tax rate: Linear F	14.747	18.782	13.704	0.004	1.199	7.021	9.148
Elasticity	-0.225	-0.244	-0.235	0.006	0.080	-0.157	-0.181
Quadratic F	31.637	25.765	21.099	5.593	58.565	38.755	22.127
Elasticity	-0.350	-0.343	-0.364	-0.048	0.095	-0.104	-0.203
Mean for adj. wealth decile							
1st	572.75	582.66	678.53	844.77	931.70	1051.64	1147.72
2nd	627.82	640.92	717.22	840.12	918.94	1049.50	1169.95
3rd	635.01	652.98	728.26	881.03	956.85	1091.31	1202.16
4th	655.67	689.16	749.25	885.88	973.39	1071.32	1198.02
5th	677.15	729.12	794.99	924.87	1022.73	1132.66	1227.26
6th	747.33	778.49	861.90	1026.72	1104.58	1189.89	1323.05
7th	817.79	853.28	947.43	1097.66	1244.78	1276.24	1435.70
8th	933.93	1015.83	1075.45	1218.77	1351.92	1418.44	1485.32
9th	1063.61	1097.18	1283.70	1492.21	1532.44	1716.12	1856.18
10th	1647.22	1664.14	1941.83	2292.19	2377.10	2255.87	2561.24
Mean for income decile							
1st	602.81	633.97	706.62	825.38	934.80	1087.30	1177.44
2nd	651.75	648.37	720.58	857.28	917.11	1024.12	1198.78
3rd	623.18	659.38	748.32	895.21	975.14	1098.81	1189.82
4th	668.58	657.65	755.98	878.94	956.06	1047.06	1174.10
5th	665.05	707.85	766.06	876.95	981.56	1064.36	1197.10
6th	657.87	698.94	766.29	922.56	988.59	1103.05	1207.79
7th	683.53	713.34	795.25	945.20	1041.52	1207.59	1293.48
8th	746.55	778.18	859.52	1020.04	1111.54	1187.76	1342.64
9th	812.08	855.39	935.49	1111.08	1192.77	1313.78	1458.97
10th	1023.09	1108.45	1210.78	1352.62	1448.16	1551.61	1707.12
Mean for district type							
Below median ADM	966.15	997.25	1134.87	1338.14	1437.80	1479.64	1630.02
Above median ADM	709.50	743.50	820.84	962.70	1045.08	1170.95	1291.30
Below median % urban	659.21	684.83	754.88	896.11	986.73	1088.36	1214.19
Above median % urban	767.69	807.47	898.10	1040.95	1122.72	1248.73	1375.26
Below median % white	706.13	737.31	825.18	965.05	1044.31	1167.59	1294.33
Above median % white	720.77	755.00	827.80	972.01	1065.14	1169.50	1295.12
Below median % poverty	768.69	805.31	893.54	1041.36	1126.18	1237.62	1374.30
Above median % poverty	658.21	686.99	759.44	895.69	983.27	1099.47	1215.15
Correlation with							
ADM	-0.144	-0.137	-0.133	-0.118	-0.144	-0.134	-0.130
Adj. wealth	0.784	0.804	0.800	0.752	0.641	0.666	0.677
Income	0.276	0.298	0.349	0.373	0.339	0.375	0.413
% Urban	0.290	0.307	0.334	0.303	0.291	0.344	0.311
% White	-0.032	-0.038	-0.069	-0.054	-0.050	-0.069	-0.030
% Poverty	-0.343	-0.355	-0.365	-0.358	-0.343	-0.328	-0.356
Adj. tax rate	-0.143	-0.161	-0.138	0.002	0.042	-0.102	-0.116
Gini by adj. wealth distribution	0.412	0.404	0.399	0.422	0.444	0.454	0.451
Gini by income distribution	0.401	0.412	0.411	0.397	0.400	0.345	0.350



Table A.1  
DISTRIBUTION OF GENERAL REVENUE PER PUPIL  
IN CALIFORNIA ELEMENTARY DISTRICTS (continued)

Measure	1970-71	1971-72	1972-73	Weighted 1973-74	1974-75	1975-76	1976-77
Percentile							
100th	4357.00	5174.46	6468.40	14815.00	8734.07	6878.68	7046.79
95th	1016.84	1114.40	1177.61	1352.52	1454.26	1588.80	1703.85
75th	771.09	808.31	881.71	1042.38	1135.41	1264.87	1392.08
50th (median)	681.30	717.20	799.81	929.84	982.79	1115.97	1254.88
25th	632.84	651.77	734.11	863.84	929.12	1041.88	1157.32
5th	562.07	574.17	649.99	776.36	870.34	975.85	1081.86
1st	373.08	419.54	444.00	456.31	554.30	631.86	322.57
Range	3983.92	4754.92	6024.40	14358.69	8179.77	6246.81	6724.22
Restricted range	454.77	540.23	527.62	576.16	583.92	612.94	621.99
Restricted range ratio	0.809	0.941	0.812	0.742	0.671	0.628	0.575
Mean deviation from median	106.69	118.40	123.01	131.60	137.43	145.47	155.45
Relative deviation from median	0.157	0.165	0.154	0.142	0.140	0.130	0.124
Mean	728.52	763.07	845.18	984.18	1059.63	1181.38	1308.98
Standard deviation	164.165	179.665	189.991	208.040	212.610	223.996	235.365
Coefficient of variation	0.225	0.235	0.225	0.211	0.201	0.190	0.180
Mean deviation from mean	113.14	124.73	130.57	141.50	150.59	154.28	163.78
Relative deviation from mean	0.155	0.163	0.154	0.144	0.142	0.131	0.125
Gini coefficient	0.109	0.116	0.109	0.100	0.096	0.090	0.087
Regression results							
Adj. wealth: Linear F	655.606	715.916	694.120	636.173	503.867	345.656	351.571
Elasticity	0.160	0.184	0.181	0.169	0.130	0.092	0.094
Quadratic F	429.533	430.085	402.858	372.870	354.439	288.562	285.462
Elasticity	0.210	0.229	0.225	0.212	0.188	0.156	0.154
Income: Linear F	91.931	87.247	93.826	115.858	115.786	134.706	144.530
Elasticity	0.100	0.098	0.095	0.097	0.095	0.105	0.103
Quadratic F	112.597	114.136	118.036	146.247	143.694	120.006	120.405
Elasticity	0.210	0.216	0.210	0.207	0.196	0.170	0.158
Adj. tax rate: Linear F	44.056	29.722	31.573	235.364	99.809	32.503	29.552
Elasticity	0.242	0.210	0.201	0.494	0.416	0.228	0.216
Quadratic F	22.740	14.892	15.971	126.397	68.495	19.817	17.417
Elasticity	0.238	0.211	0.199	0.492	0.457	0.222	0.215
Mean for adj. wealth decile							
1st	592.80	605.85	729.50	875.28	922.64	1059.12	1162.17
2nd	633.51	658.22	723.60	864.96	947.36	1081.22	1201.95
3rd	653.79	662.79	754.05	871.25	943.93	1093.04	1222.74
4th	674.22	715.15	802.54	906.40	966.67	1079.68	1213.27
5th	697.33	712.68	781.15	934.80	1010.14	1113.76	1212.87
6th	687.36	750.68	800.59	933.75	1001.39	1141.83	1296.05
7th	694.86	736.32	812.76	969.76	1048.41	1134.64	1284.38
8th	804.90	839.27	904.24	1020.63	1111.11	1250.34	1297.83
9th	842.63	881.69	965.41	1104.40	1211.19	1306.02	1480.27
10th	1003.75	1068.06	1177.97	1360.52	1433.45	1554.13	1718.25
Mean for income decile							
1st	631.36	644.44	733.43	868.39	939.51	1078.14	1206.17
2nd	644.72	690.23	767.95	888.16	944.19	1054.07	1197.07
3rd	651.10	642.98	739.10	862.79	940.27	1066.15	1177.02
4th	656.48	703.72	783.67	911.19	960.56	1066.32	1197.36
5th	668.48	725.73	774.57	900.55	994.34	1112.18	1219.52
6th	706.75	688.75	793.68	948.52	1042.76	1136.60	1268.18
7th	774.98	788.15	847.48	970.63	1050.43	1219.88	1324.77
8th	733.81	826.74	909.89	1059.20	1129.42	1274.29	1418.95
9th	822.87	860.16	940.42	1130.28	1198.38	1300.88	1436.99
10th	968.61	1029.36	1125.28	1257.19	1346.90	1451.31	1587.65
Mean for district type							
Below median ADM	740.94	779.85	865.28	1002.61	1096.13	1216.79	1334.76
Above median ADM	716.09	746.30	825.08	965.74	1023.13	1145.97	1283.19
Below median % urban	692.85	726.38	808.89	945.76	1027.11	1141.16	1266.07
Above median % urban	758.98	793.67	874.21	1013.62	1082.24	1210.81	1340.67
Below median % white	720.89	753.95	840.69	981.03	1045.05	1175.08	1306.86
Above median % white	730.94	766.10	842.41	978.35	1064.30	1176.88	1299.88
Below median % poverty	784.27	825.16	906.15	1032.55	1111.89	1228.88	1365.51
Above median % poverty	667.56	694.89	776.95	926.83	997.46	1123.09	1241.23
Correlation with							
ADM	-0.043	-0.049	-0.069	-0.081	-0.137	-0.140	-0.104
Adj. wealth	0.693	0.710	0.705	0.694	0.653	0.582	0.588
Income	0.449	0.441	0.454	0.492	0.495	0.523	0.538
% Urban	0.228	0.237	0.246	0.231	0.197	0.227	0.232
% White	0.016	0.011	-0.032	-0.033	0.008	-0.035	-0.024
% Poverty	-0.392	-0.400	-0.390	-0.331	-0.317	-0.302	-0.336
Adj. tax rate	0.242	0.201	0.207	0.506	0.359	0.214	0.206
Gini by adj. wealth distribution	0.254	0.248	0.247	0.252	0.258	0.268	0.266
Gini by income distribution	0.236	0.235	0.246	0.251	0.260	0.270	0.282

Table A.2  
DISTRIBUTION OF GENERAL + PL874 REVENUE PER PUPIL  
IN CALIFORNIA ELEMENTARY DISTRICTS

Measure	1970-71	1971-72	1972-73	Unweighted 1973-74	1974-75	1975-76	1976-77
Percentile							
100th	4357.00	5174.46	6468.40	14815.00	8734.07	6878.68	7046.79
95th	1605.65	1706.84	1894.01	2148.66	2303.43	2408.08	2637.54
75th	945.03	1000.27	1102.08	1237.83	1347.06	1438.89	1572.25
50th (median)	713.65	751.05	834.72	967.57	1060.54	1169.83	1296.36
25th	623.12	639.33	709.81	838.81	925.01	1025.29	1141.58
5th	528.73	538.39	595.55	717.89	807.94	906.72	1011.33
1st	373.08	441.06	484.78	456.31	554.30	631.86	322.57
Range	3983.92	4733.40	5983.62	14358.69	8179.77	6246.81	6724.22
Restricted range	1076.92	1168.45	1298.47	1430.77	1495.49	1501.36	1626.21
Restricted range ratio	2.037	2.170	2.180	1.993	1.851	1.656	1.608
Mean deviation from median	236.28	253.18	288.41	332.60	340.63	324.32	349.49
Relative deviation from median	0.331	0.337	0.346	0.344	0.321	0.277	0.270
Mean	850.53	887.33	993.40	1163.86	1257.72	1341.93	1481.05
Standard deviation	396.330	411.697	524.050	746.922	670.117	575.645	629.483
Coefficient of variation	0.466	0.464	0.528	0.642	0.533	0.429	0.425
Mean deviation from mean	261.17	277.36	321.78	373.23	382.19	357.82	384.09
Relative deviation from mean	0.307	0.313	0.324	0.321	0.304	0.267	0.259
Gini coefficient	0.209	0.213	0.221	0.221	0.208	0.184	0.180
Regression results							
Adj. wealth: Linear F	1104.946	1224.261	1217.621	880.629	459.579	527.363	547.279
Elasticity	0.217	0.242	0.280	0.295	0.202	0.141	0.147
Quadratic F	704.980	647.527	637.201	509.454	271.469	390.830	404.174
Elasticity	0.304	0.288	0.335	0.181	0.295	0.238	0.245
Income: Linear F	28.130	33.338	47.478	55.013	43.336	54.182	65.790
Elasticity	0.022	0.022	0.026	0.029	0.025	0.039	0.043
Quadratic F	79.563	61.403	97.644	132.450	131.872	108.523	120.676
Elasticity	0.159	0.133	0.171	0.207	0.192	0.164	0.161
Adj. tax rate: Linear F	16.474	23.094	16.139	0.026	0.490	9.242	13.011
Elasticity	-0.233	-0.265	-0.251	-0.014	0.051	-0.178	-0.213
Quadratic F	34.501	30.784	24.042	6.171	60.267	41.887	26.336
Elasticity	-0.359	-0.369	-0.386	-0.069	0.065	-0.124	-0.236
Mean for adj. wealth decile							
1st	612.20	626.61	718.80	882.79	975.13	1087.73	1200.01
2nd	640.10	652.48	727.85	850.82	928.98	1067.18	1190.56
3rd	644.71	669.26	742.45	888.17	972.81	1102.14	1215.14
4th	663.46	698.71	755.51	903.90	988.06	1082.34	1208.60
5th	684.40	737.40	807.32	932.83	1038.43	1148.55	1244.41
6th	762.22	806.49	882.57	1038.97	1112.83	1199.27	1340.28
7th	830.54	865.24	958.28	1108.63	1251.20	1284.32	1446.47
8th	939.07	1025.16	1083.64	1228.88	1373.61	1441.01	1509.76
9th	1075.00	1111.18	1296.92	1506.14	1550.53	1731.57	1882.81
10th	1653.60	1680.75	1960.70	2297.45	2385.60	2275.21	2572.43
Mean for income decile							
1st	624.62	654.90	714.79	832.83	942.28	1097.09	1187.73
2nd	659.56	662.64	749.95	885.07	928.34	1029.73	1209.90
3rd	644.94	675.58	758.02	903.83	1007.04	1137.29	1238.51
4th	684.83	693.04	774.06	896.96	976.83	1062.64	1187.00
5th	672.73	713.60	791.20	901.86	1003.60	1076.52	1217.92
6th	679.81	724.54	777.76	937.08	1008.14	1130.85	1239.14
7th	691.06	725.53	815.71	965.76	1055.90	1219.58	1322.46
8th	753.17	785.25	864.53	1026.32	1129.09	1204.32	1352.37
9th	831.19	872.22	953.54	1125.05	1201.18	1319.57	1470.81
10th	1029.05	1114.02	1215.94	1357.54	1454.04	1558.96	1715.77
Mean for district type							
Below median ADM	977.37	1014.69	1150.54	1349.70	1453.74	1497.19	1650.55
Above median ADM	723.69	759.97	836.27	978.02	1061.70	1186.68	1311.54
Below median % urban	670.52	699.48	768.91	909.81	1003.15	1104.03	1234.67
Above median % urban	783.67	824.79	914.18	1056.65	1138.14	1263.29	1393.66
Below median % white	727.99	762.96	849.94	988.88	1070.08	1192.98	1327.37
Above median % white	726.20	761.31	833.15	977.58	1071.21	1174.33	1300.95
Below median % poverty	781.75	821.13	908.73	1056.30	1140.29	1250.11	1391.47
Above median % poverty	672.44	703.13	774.37	910.16	1001.00	1117.20	1236.86
Correlation with							
ADM	-0.140	-0.137	-0.133	-0.117	-0.144	-0.135	-0.131
Adj. wealth	0.780	0.797	0.796	0.750	0.636	0.663	0.671
Income	0.268	0.290	0.341	0.363	0.329	0.363	0.396
% Urban	0.309	0.323	0.346	0.315	0.297	0.348	0.313
% White	-0.061	-0.068	-0.097	-0.080	-0.077	-0.097	-0.065
% Poverty	-0.349	-0.361	-0.369	-0.362	-0.342	-0.321	-0.346
Adj. tax rate	-0.151	-0.178	-0.150	-0.006	0.027	-0.116	-0.138
Gini by adj. wealth distribution	0.416	0.409	0.402	0.424	0.446	0.456	0.453
Gini by income distribution	0.404	0.415	0.414	0.400	0.403	0.347	0.352

Table A.3  
DISTRIBUTION OF LOCAL + STATE REVENUE PER PUPIL  
IN CALIFORNIA ELEMENTARY DISTRICTS

Measure	1970-71	1971-72	1972-73	Unweighted 1973-74	1974-75	1975-76	1976-77
Percentile							
100th	4357.00	5174.46	6468.40	14914.33	10369.00	6882.59	7072.35
95th	1649.20	1812.44	1966.86	2297.73	2407.86	2588.00	2765.29
75th	986.00	1035.75	1143.98	1321.06	1461.18	1577.03	1752.52
50th (median)	746.24	782.30	876.44	1042.34	1164.55	1294.45	1447.57
25th	649.63	671.32	749.99	914.99	1021.00	1150.47	1284.42
5th	550.27	563.29	621.89	771.66	893.77	1005.70	1133.43
1st	373.08	441.06	490.89	496.79	673.21	678.97	323.21
Range	3983.92	4733.40	5977.51	14417.55	9695.79	6203.62	6749.14
Restricted range	1098.94	1249.15	1344.98	1526.07	1514.09	1582.30	1631.86
Restricted range ratio	1.997	2.218	2.163	1.978	1.694	1.573	1.440
Mean deviation from median	243.43	259.92	295.34	337.02	351.92	326.58	351.68
Relative deviation from median	0.326	0.332	0.337	0.323	0.302	0.252	0.243
Mean	885.99	924.13	1036.96	1238.83	1366.28	1465.44	1621.57
Standard deviation	406.845	418.367	527.272	749.013	733.743	576.372	627.468
Coefficient of variation	0.459	0.453	0.508	0.605	0.537	0.393	0.387
Mean deviation from mean	269.91	285.44	327.80	378.50	394.25	359.55	387.05
Relative deviation from mean	0.305	0.309	0.316	0.306	0.289	0.245	0.239
Gini coefficient	0.207	0.210	0.217	0.211	0.199	0.170	0.166
Regression results							
Adj. wealth: Linear F	1058.614	1173.111	1192.349	860.345	353.735	474.956	504.309
Elasticity	0.212	0.234	0.269	0.276	0.188	0.125	0.131
Quadratic F	686.462	625.600	625.875	497.827	211.004	345.814	369.372
Elasticity	0.301	0.282	0.324	0.169	0.281	0.212	0.219
Income: Linear F	28.155	32.201	44.267	51.339	40.335	43.823	55.027
Elasticity	0.022	0.022	0.025	0.027	0.023	0.034	0.037
Quadratic F	78.406	60.547	92.816	114.077	105.936	78.827	94.583
Elasticity	0.157	0.133	0.168	0.189	0.169	0.141	0.141
Adj. tax rate: Linear F	13.876	17.639	11.460	0.046	5.074	3.864	4.832
Elasticity	-0.211	-0.227	-0.205	0.017	0.165	-0.106	-0.119
Quadratic F	31.684	25.846	19.842	5.886	88.416	39.234	20.485
Elasticity	-0.332	-0.323	-0.328	-0.034	0.181	-0.056	-0.139
Mean for adj. wealth decile							
1st	617.47	632.71	733.96	944.18	1065.54	1202.55	1328.47
2nd	680.95	692.69	778.08	921.59	1028.85	1180.37	1323.29
3rd	679.37	701.72	784.82	977.74	1082.95	1235.11	1378.86
4th	697.31	747.95	809.95	976.38	1089.43	1220.23	1353.66
5th	724.32	776.91	855.15	1015.81	1145.90	1285.44	1406.28
6th	797.05	835.45	916.24	1112.42	1221.80	1333.16	1493.93
7th	863.90	912.72	1009.51	1185.74	1359.49	1419.63	1582.57
8th	981.30	1066.42	1130.64	1299.99	1469.52	1564.37	1656.32
9th	1115.52	1152.28	1353.48	1587.13	1647.01	1846.16	2006.77
10th	1702.72	1722.47	1997.77	2367.32	2552.35	2367.43	2685.55
Mean for income decile							
1st	649.71	688.85	772.64	946.89	1083.80	1252.87	1361.91
2nd	698.75	698.13	778.48	957.77	1055.20	1203.64	1386.96
3rd	667.40	707.42	803.09	975.67	1086.25	1231.09	1370.90
4th	726.13	708.88	812.44	974.60	1104.08	1222.78	1354.92
5th	706.77	774.97	837.37	975.45	1095.76	1205.02	1367.45
6th	704.17	752.07	819.94	1013.13	1113.35	1241.22	1369.94
7th	734.41	768.38	853.17	1023.98	1144.74	1332.61	1445.62
8th	792.42	831.25	926.30	1106.90	1222.19	1320.33	1498.52
9th	859.86	906.23	994.07	1187.61	1286.66	1447.91	1615.69
10th	1066.76	1158.79	1266.93	1428.65	1544.38	1662.61	1840.33
Mean for district type							
Below median ADM	1017.38	1053.79	1196.02	1427.69	1572.16	1623.03	1790.51
Above median ADM	754.61	794.47	877.90	1049.96	1160.41	1307.86	1452.63
Below median % urban	703.48	735.54	811.09	987.33	1112.67	1240.40	1386.10
Above median % urban	817.80	863.45	961.80	1130.80	1234.62	1383.62	1536.35
Below median % white	757.44	794.88	890.58	1068.12	1177.29	1324.09	1476.13
Above median % white	763.84	804.11	882.30	1050.01	1169.99	1299.93	1446.32
Below median % poverty	814.10	854.82	950.57	1114.13	1222.19	1356.74	1515.89
Above median % poverty	707.18	744.17	822.32	1004.00	1125.10	1267.27	1406.56
Correlation with							
ADM	-0.139	-0.134	-0.129	-0.118	-0.143	-0.144	-0.136
Adj. wealth	0.774	0.790	0.793	0.746	0.586	0.643	0.656
Income	0.268	0.286	0.330	0.352	0.319	0.331	0.367
% Urban	0.294	0.308	0.334	0.300	0.256	0.285	0.269
% White	-0.060	-0.064	-0.097	-0.150	-0.147	-0.163	-0.137
% Poverty	-0.322	-0.329	-0.336	-0.247	-0.203	-0.180	-0.206
Adj. tax rate	-0.139	-0.156	-0.127	0.008	0.086	-0.075	-0.085
Gini by adj. wealth distribution	0.418	0.412	0.407	0.432	0.455	0.466	0.463
Gini by income distribution	0.405	0.417	0.416	0.406	0.411	0.357	0.361

Table A.3  
DISTRIBUTION OF LOCAL + STATE REVENUE PER PUPIL  
IN CALIFORNIA ELEMENTARY DISTRICTS (continued)

Measure	1970-71	1971-72	1972-73	Weighted 1973-74	1974-75	1975-76	1976-77
Percentile							
100th	4357.00	5174.46	6468.40	14914.33	10369.00	6882.59	7072.35
95th	1074.29	1162.03	1251.17	1431.33	1539.02	1743.10	1877.47
75th	828.48	870.28	965.29	1141.42	1245.01	1400.33	1563.93
50th (median)	729.91	773.78	856.36	1007.66	1097.30	1267.16	1411.28
25th	684.99	711.81	796.27	944.15	1024.44	1155.68	1300.64
5th	598.59	618.00	695.78	852.10	963.30	1080.01	1208.82
1st	373.08	441.06	490.89	496.79	673.21	678.97	323.21
Range	3983.92	4733.40	5977.51	14417.55	9695.79	6203.62	6749.14
Restricted range	475.70	544.03	555.39	579.23	575.72	663.09	668.65
Restricted range ratio	0.795	0.880	0.798	0.680	0.598	0.614	0.553
Mean deviation from median	109.80	123.09	129.04	137.96	144.64	153.60	169.38
Relative deviation from median	0.150	0.159	0.151	0.137	0.132	0.121	0.120
Mean	778.12	817.64	907.37	1072.32	1168.88	1310.08	1463.20
Standard deviation	168.082	184.234	195.689	212.198	217.614	234.398	246.022
Coefficient of variation	0.216	0.225	0.216	0.198	0.186	0.179	0.168
Mean deviation from mean	116.64	128.78	136.01	146.89	153.06	158.29	171.00
Relative deviation from mean	0.150	0.158	0.150	0.137	0.131	0.121	0.117
Gini coefficient	0.105	0.112	0.106	0.096	0.090	0.086	0.082
Regression results							
Adj. wealth: Linear F	583.879	636.020	601.300	536.120	416.482	274.538	269.175
Elasticity	0.149	0.171	0.168	0.151	0.114	0.081	0.080
Quadratic F	376.446	379.190	345.790	307.612	281.947	218.532	206.729
Elasticity	0.195	0.213	0.208	0.188	0.164	0.136	0.131
Income: Linear F	87.847	84.226	88.537	104.765	100.412	107.788	118.630
Elasticity	0.094	0.093	0.090	0.088	0.083	0.093	0.091
Quadratic F	105.800	109.362	109.996	126.481	115.740	91.316	95.697
Elasticity	0.198	0.205	0.199	0.187	0.170	0.149	0.140
Adj. tax rate: Linear F	50.913	33.819	37.827	250.740	116.965	43.096	38.237
Elasticity	0.249	0.214	0.211	0.473	0.413	0.246	0.229
Quadratic F	26.778	17.026	19.158	138.403	84.420	25.417	21.696
Elasticity	0.243	0.214	0.208	0.472	0.457	0.240	0.227
Mean for adj. wealth decile							
1st	646.48	663.68	795.51	990.40	1060.96	1216.17	1348.88
2nd	675.82	705.78	778.79	939.78	1049.15	1216.45	1386.99
3rd	703.75	712.61	816.56	967.41	1064.16	1208.24	1348.27
4th	728.40	768.64	862.59	979.07	1065.14	1198.49	1339.18
5th	751.88	772.32	844.25	1026.06	1107.45	1238.74	1359.16
6th	735.59	811.85	870.17	1028.00	1126.55	1263.96	1481.61
7th	736.06	785.03	866.96	1055.05	1152.98	1262.34	1435.72
8th	864.10	902.48	974.80	1114.01	1226.39	1391.67	1448.61
9th	889.76	934.44	1028.10	1187.28	1307.07	1430.41	1626.10
10th	1049.41	1119.55	1236.03	1436.17	1528.99	1674.31	1857.45
Mean for income decile							
1st	683.74	695.65	794.96	962.88	1049.86	1208.19	1353.01
2nd	687.42	740.49	824.88	981.33	1068.18	1199.89	1369.60
3rd	705.54	697.02	796.29	947.50	1053.81	1203.49	1329.46
4th	699.93	757.76	849.27	1004.73	1078.18	1190.29	1355.24
5th	720.84	782.99	837.08	982.28	1098.71	1238.87	1377.09
6th	757.96	747.25	856.47	1038.70	1160.38	1261.38	1425.82
7th	830.22	846.86	913.13	1061.23	1162.60	1354.08	1481.82
8th	783.82	884.02	978.21	1154.01	1230.91	1405.26	1570.70
9th	871.73	912.50	1003.07	1204.55	1290.06	1408.40	1584.12
10th	1019.59	1087.79	1188.87	1340.64	1442.75	1572.30	1728.14
Mean for district type							
Below median ADM	788.12	834.30	926.36	1089.09	1206.88	1352.26	1494.26
Above median ADM	768.13	800.98	888.38	1055.55	1130.89	1267.90	1432.13
Below median % urban	741.64	780.40	868.70	1033.21	1139.88	1274.52	1421.64
Above median % urban	810.52	850.07	939.75	1102.35	1187.21	1333.91	1493.36
Below median % white	770.88	808.47	902.44	1073.23	1159.42	1309.28	1466.75
Above median % white	781.27	822.00	906.01	1062.33	1167.66	1299.15	1448.25
Below median % poverty	833.61	879.37	968.10	1106.55	1200.61	1337.55	1498.48
Above median % poverty	718.55	751.10	840.35	1029.01	1126.47	1270.88	1416.51
Correlation with							
ADM	-0.032	-0.043	-0.056	-0.069	-0.126	-0.141	-0.101
Adj. wealth	0.672	0.689	0.679	0.663	0.617	0.538	0.536
Income	0.441	0.434	0.443	0.474	0.469	0.482	0.501
% Urban	0.235	0.240	0.255	0.231	0.169	0.187	0.201
% White	-0.022	-0.017	-0.063	-0.116	-0.092	-0.129	-0.126
% Poverty	-0.375	-0.382	-0.371	-0.226	-0.181	-0.168	-0.194
Adj. tax rate	0.259	0.214	0.226	0.518	0.384	0.245	0.233
Gini by adj. wealth distribution	0.260	0.253	0.253	0.260	0.267	0.276	0.275
Gini by income distribution	0.239	0.239	0.250	0.258	0.269	0.278	0.288

Table A-4  
DISTRIBUTION OF LOCAL + STATE + FEDERAL REVENUE PER PUPIL  
IN CALIFORNIA ELEMENTARY DISTRICTS

Measure	1970-71	1971-72	1972-73	unweighted 1973-74	1974-75	1975-76	1976-77
Percentile							
100th	4357.00	5174.46	6468.46	14914.31	18369.00	6882.59	7072.35
95th	1649.20	1812.44	1966.86	2340.67	2437.36	2625.39	2829.93
75th	999.32	1049.34	1156.68	1331.38	1473.92	1590.04	1774.17
50th (median)	771.02	813.09	897.23	1057.28	1183.91	1315.01	1471.39
25th	666.34	687.59	764.15	930.52	1035.36	1165.91	1300.96
5th	563.26	577.26	631.45	783.73	900.06	1017.98	1141.44
1st	373.08	441.06	499.01	496.79	673.21	678.97	323.21
Range	3983.92	4733.40	5969.39	14417.55	9698.79	6203.62	6749.14
Restricted range	1085.95	1240.18	1335.42	1556.89	1537.29	1607.41	1688.50
Restricted range ratio	1.928	2.167	2.115	1.987	1.708	1.579	1.479
Mean deviation from median	242.71	260.66	296.26	338.28	353.48	329.51	355.11
Relative deviation from median	0.315	0.321	0.330	0.320	0.299	0.251	0.241
Mean	898.69	941.09	1052.51	1252.27	1382.56	1482.08	1641.95
Standard deviation	404.548	419.028	528.737	748.020	735.124	577.300	629.101
Coefficient of variation	0.450	0.445	0.502	0.597	0.532	0.390	0.383
Mean deviation from mean	267.04	284.23	328.09	377.44	394.70	361.14	389.49
Relative deviation from mean	0.297	0.302	0.312	0.301	0.285	0.244	0.237
Gini coefficient	0.203	0.207	0.214	0.209	0.198	0.169	0.165
Regression results							
Adj. wealth: Linear F	1034.418	1115.288	1162.120	850.272	347.073	467.571	488.698
Elasticity	0.207	0.228	0.265	0.272	0.185	0.124	0.128
Quadratic F	662.919	592.445	609.553	493.773	206.662	339.886	355.404
Elasticity	0.292	0.274	0.318	0.165	0.276	0.209	0.215
Income: Linear F	26.407	30.293	41.934	48.655	38.128	41.187	50.382
Elasticity	0.021	0.021	0.024	0.026	0.022	0.033	0.036
Quadratic F	73.840	56.500	86.376	106.138	99.218	73.263	84.901
Elasticity	0.152	0.127	0.163	0.184	0.164	0.137	0.136
Adj. tax rate: Linear F	15.505	21.722	13.672	0.000	3.564	5.542	7.700
Elasticity	-0.218	-0.247	-0.221	-0.001	0.137	-0.126	-0.148
Quadratic F	34.469	30.736	22.638	6.443	89.936	42.127	24.135
Elasticity	-0.341	-0.348	-0.349	-0.054	0.153	-0.075	-0.170
Mean for adj. wealth decile							
1st	656.92	676.67	774.23	982.19	1108.96	1238.64	1380.76
2nd	693.24	704.25	788.71	932.29	1038.89	1198.05	1343.89
3rd	689.08	718.00	799.01	984.87	1098.90	1245.93	1391.84
4th	705.10	757.50	816.21	994.41	1104.10	1231.26	1364.24
5th	731.57	785.20	867.48	1023.77	1161.60	1301.33	1423.43
6th	811.94	863.45	936.92	1124.68	1230.05	1342.54	1511.16
7th	876.64	924.68	1020.35	1196.71	1365.91	1427.72	1593.34
8th	986.44	1075.75	1138.83	1310.11	1491.20	1586.95	1680.76
9th	1126.91	1166.28	1366.70	1601.06	1665.09	1861.62	2033.40
10th	1709.10	1739.08	2016.65	2372.58	2560.85	2386.76	2696.73
Mean for income decile							
1st	671.52	709.77	780.80	954.34	1091.28	1262.66	1372.20
2nd	706.57	712.40	807.85	985.56	1066.43	1209.25	1398.08
3rd	689.16	723.63	812.79	984.29	1118.15	1269.58	1419.58
4th	742.38	744.27	830.52	992.61	1124.85	1238.36	1367.83
5th	714.45	780.72	862.50	1000.36	1117.80	1217.18	1388.27
6th	726.12	777.67	831.40	1027.65	1132.89	1269.01	1401.29
7th	741.93	780.57	873.62	1044.53	1159.11	1344.60	1474.59
8th	799.03	838.32	931.31	1113.18	1239.74	1336.88	1508.26
9th	878.97	923.07	1012.12	1201.59	1295.07	1453.70	1627.54
10th	1072.71	1164.35	1272.10	1433.57	1550.26	1669.96	1848.99
Mean for district type							
Below median ADM	1028.59	1071.23	1211.68	1439.26	1588.09	1640.57	1811.04
Above median ADM	768.80	810.94	893.33	1065.28	1177.02	1323.59	1472.87
Below median % urban	714.78	750.19	825.12	1001.03	1129.08	1256.07	1406.57
Above median % urban	833.78	880.77	977.88	1146.50	1250.04	1398.17	1554.75
Below median % white	779.30	820.53	915.34	1091.96	1203.06	1349.47	1509.18
Above median % white	769.26	810.42	887.66	1055.58	1176.06	1304.76	1452.15
Below median % poverty	827.17	870.64	965.75	1129.06	1236.29	1369.24	1533.06
Above median % poverty	721.40	760.31	837.25	1018.47	1142.83	1285.00	1428.27
Correlation with							
ADM	-0.135	-0.133	-0.129	-0.117	-0.142	-0.145	-0.137
Adj. wealth	0.770	0.783	0.789	0.744	0.582	0.640	0.650
Income	0.260	0.278	0.322	0.344	0.311	0.322	0.353
% Urban	0.312	0.323	0.346	0.312	0.263	0.291	0.274
% White	-0.089	-0.094	-0.124	-0.174	-0.173	-0.190	-0.169
% Poverty	-0.327	-0.334	-0.340	-0.252	-0.204	-0.177	-0.201
Adj. tax rate	-0.146	-0.173	-0.138	-0.000	0.072	-0.090	-0.107
Gini by adj. wealth distribution	0.422	0.416	0.410	0.434	0.457	0.467	0.465
Gini by income distribution	0.408	0.420	0.418	0.408	0.413	0.359	0.363

Table A-4  
DISTRIBUTION OF LOCAL + STATE + PL874 REVENUE PER PUPIL  
IN CALIFORNIA ELEMENTARY DISTRICTS (continued)

Measure	1970-71	1971-72	1972-73	Weighted 1973-74	1974-75	1975-76	1976-77
Percentile							
100th	4357.00	5174.46	6468.40	14914.33	10369.00	6882.59	7072.35
95th	3088.29	1162.28	1272.54	1437.16	1544.00	1743.10	1677.47
75th	846.36	878.78	967.95	1152.60	1281.63	1403.48	1601.80
50th (median)	744.97	797.05	873.71	1018.29	1110.56	1276.33	1442.71
25th	701.21	726.09	806.77	959.63	1042.04	1171.85	1320.67
5th	611.76	636.68	709.08	870.21	975.50	1083.90	1221.75
1st	373.08	441.06	499.01	496.79	673.21	678.97	323.21
Range	3983.92	4733.40	5969.39	14417.55	9695.79	6203.62	6749.14
Restricted range	476.53	525.60	563.46	566.94	568.50	659.20	655.72
Restricted range ratio	0.779	0.826	0.795	0.652	0.583	0.608	0.537
Mean deviation from median	109.34	120.74	127.72	139.91	146.72	154.04	171.10
Relative deviation from median	0.147	0.151	0.146	0.137	0.132	0.121	0.119
Mean	794.24	834.70	922.66	1087.16	1185.23	1325.27	1482.18
Standard deviation	165.341	181.172	195.146	212.434	217.709	233.921	248.797
Coefficient of variation	0.208	0.217	0.212	0.195	0.184	0.177	0.168
Mean deviation from mean	114.17	125.31	133.82	148.42	154.71	159.39	173.10
Relative deviation from mean	0.144	0.150	0.145	0.137	0.131	0.120	0.117
Gini coefficient	0.102	0.107	0.103	0.095	0.089	0.085	0.082
Regression results							
Adj. wealth: Linear F	535.051	593.898	568.131	495.136	391.584	261.695	246.645
Elasticity	0.140	0.161	0.162	0.146	0.110	0.078	0.078
Quadratic F	334.632	346.133	319.243	278.435	259.412	204.127	184.846
Elasticity	0.182	0.199	0.198	0.180	0.157	0.131	0.126
Income: Linear F	83.565	77.696	82.056	96.024	91.124	97.744	102.387
Elasticity	0.088	0.086	0.085	0.084	0.079	0.088	0.086
Quadratic F	99.171	97.937	98.655	112.110	101.677	81.254	80.625
Elasticity	0.186	0.190	0.187	0.177	0.161	0.141	0.133
Adj. tax rate: Linear F	30.318	16.528	20.989	189.686	75.779	26.579	18.544
Elasticity	0.187	0.146	0.156	0.420	0.337	0.193	0.161
Quadratic F	20.514	12.239	13.551	115.441	76.844	22.347	19.395
Elasticity	0.176	0.147	0.148	0.418	0.392	0.183	0.158
Mean for adj. wealth decile							
1st	705.56	724.98	848.18	1036.14	1105.46	1257.41	1398.74
2nd	679.61	711.42	787.19	953.85	1066.51	1229.87	1406.52
3rd	713.60	723.41	825.59	977.44	1071.14	1220.27	1370.04
4th	754.82	782.56	871.64	988.11	1077.44	1213.16	1348.47
5th	768.57	794.07	849.23	1033.22	1117.82	1247.95	1370.06
6th	744.53	826.02	898.46	1046.46	1155.36	1285.76	1504.45
7th	745.00	793.10	874.93	1069.37	1158.55	1266.56	1443.67
8th	871.62	913.17	982.08	1117.14	1243.10	1412.59	1469.64
9th	899.06	951.16	1045.10	1205.66	1318.36	1435.44	1640.13
10th	1060.04	1127.12	1244.26	1444.22	1538.54	1683.68	1870.02
Mean for income decile							
1st	705.55	724.18	813.25	971.19	1057.76	1218.14	1361.33
2nd	707.94	752.11	840.93	1005.56	1097.44	1229.72	1383.24
3rd	729.19	737.33	818.65	970.43	1082.75	1224.40	1371.86
4th	712.21	768.84	873.34	1032.03	1099.17	1204.56	1381.72
5th	743.09	796.72	854.81	994.53	1116.78	1266.78	1406.72
6th	774.21	779.14	879.62	1052.91	1182.16	1275.03	1442.30
7th	836.28	852.10	917.55	1075.30	1167.99	1361.44	1507.34
8th	789.92	892.68	983.25	1161.64	1249.04	1423.39	1581.05
9th	899.67	926.85	1019.07	1218.36	1294.48	1411.99	1592.46
10th	1023.34	1091.43	1192.37	1343.56	1448.81	1576.88	1733.97
Mean for district type							
Below median ADM	805.80	854.55	945.16	1107.02	1225.79	1370.49	1517.82
Above median ADM	782.68	814.86	900.16	1067.30	1144.67	1280.04	1446.53
Below median % urban	762.15	801.22	887.05	1051.48	1160.83	1294.86	1447.49
Above median % urban	822.13	863.06	951.52	1113.62	1198.44	1343.60	1504.91
Below median % white	796.83	835.23	926.84	1096.79	1185.16	1333.95	1497.32
Above median % white	787.44	829.05	911.72	1068.31	1174.12	1304.51	1455.08
Below median % poverty	842.39	889.52	977.15	1115.55	1208.28	1344.50	1507.91
Above median % poverty	741.89	774.76	861.42	1049.55	1150.99	1293.97	1444.49
Correlation with							
ADM	-0.047	-0.062	-0.074	-0.086	-0.141	-0.154	-0.118
Adj. wealth	0.656	0.676	0.669	0.648	0.606	0.529	0.520
Income	0.432	0.420	0.430	0.458	0.451	0.464	0.474
% Urban	0.241	0.238	0.250	0.226	0.160	0.178	0.187
% White	-0.066	-0.059	-0.099	-0.148	-0.125	-0.162	-0.164
% Poverty	-0.358	-0.368	-0.355	-0.209	-0.157	-0.146	-0.169
Adj. tax rate	0.203	0.151	0.170	0.466	0.317	0.195	0.164
Gini by adj. wealth distribution	0.265	0.258	0.256	0.263	0.270	0.279	0.277
Gini by income distribution	0.242	0.244	0.254	0.261	0.272	0.281	0.291

Table A.5  
DISTRIBUTION OF TOTAL REVENUE PER PUPIL  
IN CALIFORNIA ELEMENTARY DISTRICTS

Measure	1970-71	1971-72	1972-73	Unweighted 1973-74	1974-75	1975-76	1976-77
Percentile							
100th	4376.80	5190.06	6519.40	14948.00	10432.67	6905.32	7094.74
95th	1740.75	1851.53	2133.46	2457.57	2712.99	2724.07	3069.55
75th	1066.74	1117.70	1237.73	1436.96	1588.57	1695.77	1903.48
50th (median)	826.82	880.56	966.71	1143.51	1301.86	1437.00	1615.58
25th	710.23	747.81	836.03	989.74	1126.37	1278.18	1419.30
5th	608.85	628.32	701.08	837.94	982.00	1086.06	1219.54
1st	373.08	453.37	499.01	496.79	717.13	753.69	323.21
Range	4003.72	4736.69	6020.39	14451.21	9715.53	6151.63	6771.52
Restricted range	1131.90	1223.21	1432.38	1619.63	1730.98	1638.02	1850.01
Restricted range ratio	1.859	1.947	2.043	1.933	1.763	1.508	1.517
Mean deviation from median	249.10	267.75	313.36	361.69	377.67	344.92	383.56
Relative deviation from median	0.301	0.304	0.324	0.316	0.290	0.240	0.237
Mean	955.03	1009.41	1136.34	1340.92	1495.95	1599.94	1791.75
Standard deviation	411.976	432.662	553.664	770.358	751.458	607.648	666.290
Coefficient of variation	0.431	0.429	0.487	0.575	0.502	0.380	0.372
Mean deviation from mean	274.16	291.73	344.02	400.17	417.65	377.99	416.06
Relative deviation from mean	0.287	0.289	0.303	0.298	0.279	0.236	0.232
Gini coefficient	0.196	0.199	0.209	0.207	0.194	0.166	0.164
Regression results							
Adj. wealth: Linear F	937.812	915.241	1106.374	941.307	359.384	404.903	431.734
Elasticity	0.194	0.211	0.254	0.268	0.177	0.115	0.120
Quadratic F	593.434	482.617	577.076	543.295	219.330	283.415	308.105
Elasticity	0.275	0.254	0.304	0.167	0.269	0.194	0.202
Income: Linear F	24.087	29.417	40.398	38.838	27.538	26.198	31.320
Elasticity	0.019	0.019	0.022	0.023	0.019	0.027	0.029
Quadratic F	56.880	45.409	63.874	70.582	53.943	35.927	40.908
Elasticity	0.127	0.104	0.131	0.153	0.130	0.103	0.103
Adj. tax rate: Linear F	25.536	29.680	22.121	1.642	0.396	9.672	10.048
Elasticity	-0.266	-0.277	-0.271	-0.096	0.043	-0.161	-0.164
Quadratic F	43.830	35.425	29.721	11.184	96.370	45.053	36.373
Elasticity	-0.391	-0.375	-0.403	-0.160	0.060	-0.112	-0.189
Mean for adj. wealth decile							
1st	739.91	780.99	878.96	1094.06	1242.56	1432.06	1581.69
2nd	762.60	767.79	878.43	1002.84	1127.70	1291.05	1459.08
3rd	741.36	778.26	865.05	1062.42	1203.07	1373.16	1537.10
4th	764.82	830.84	886.20	1057.67	1199.86	1349.67	1504.20
5th	787.11	857.26	937.07	1099.17	1261.98	1425.32	1579.85
6th	862.47	937.09	1002.83	1204.91	1331.75	1452.97	1676.85
7th	918.65	979.91	1110.29	1306.90	1483.64	1510.66	1701.74
8th	1024.07	1124.71	1232.85	1383.45	1605.63	1697.82	1833.11
9th	1177.35	1226.86	1450.04	1697.58	1787.45	1954.46	2179.89
10th	1771.92	1810.42	2121.71	2500.18	2715.88	2512.28	2863.95
Mean for income decile							
1st	764.55	819.09	903.87	1062.23	1232.71	1428.68	1527.98
2nd	759.93	778.01	876.29	1076.98	1184.46	1364.49	1564.55
3rd	754.85	789.65	906.94	1071.66	1221.27	1401.23	1573.00
4th	795.62	826.13	912.70	1085.32	1266.47	1351.17	1503.95
5th	753.23	838.43	930.35	1076.06	1192.19	1320.36	1531.70
6th	770.68	831.75	885.73	1085.90	1224.18	1374.87	1506.60
7th	791.46	833.36	948.92	1124.09	1258.57	1452.85	1633.49
8th	839.03	897.14	996.18	1188.68	1360.67	1447.89	1616.66
9th	903.98	958.96	1050.65	1235.35	1346.58	1529.61	1719.58
10th	1091.83	1189.59	1301.84	1470.26	1597.52	1723.92	1914.35
Mean for district type							
Below median ADM	1091.85	1146.94	1310.34	1546.36	1720.37	1767.04	1984.45
Above median ADM	818.20	871.89	962.34	1135.47	1271.54	1432.85	1599.05
Below median % urban	772.21	818.07	903.48	1083.72	1239.42	1375.35	1550.46
Above median % urban	872.82	934.35	1039.21	1211.58	1337.50	1503.67	1667.92
Below median % white	835.51	890.55	995.72	1180.74	1323.05	1485.98	1664.75
Above median % white	809.53	861.87	946.97	1114.56	1253.88	1393.03	1553.62
Below median % poverty	855.48	909.82	1013.26	1179.33	1303.91	1443.02	1623.26
Above median % poverty	789.55	842.60	929.43	1115.97	1273.01	1435.99	1595.11
Correlation with							
ADM	-0.157	-0.150	-0.147	-0.131	-0.161	-0.158	-0.166
Adj. wealth	0.755	0.752	0.782	0.761	0.589	0.613	0.627
Income	0.249	0.274	0.317	0.311	0.268	0.261	0.285
% Urban	0.267	0.295	0.305	0.256	0.186	0.230	0.187
% White	-0.180	-0.189	-0.217	-0.279	-0.344	-0.364	-0.343
% Poverty	-0.195	-0.201	-0.202	-0.112	-0.024	0.034	-0.002
Adj. tax rate	-0.186	-0.201	-0.175	-0.049	0.024	-0.119	-0.122
Gini by adj. wealth distribution	0.431	0.428	0.417	0.436	0.460	0.476	0.472
Gini by income distribution	0.418	0.431	0.430	0.419	0.425	0.372	0.376

Table A-5  
DISTRIBUTION OF TOTAL REVENUE PER PUPIL  
IN CALIFORNIA ELEMENTARY DISTRICTS (continued)

Measure	1970-71	1971-72	1972-73	Weighted 1973-74	1974-75	1975-76	1976-77
Percentile							
100th	4376.80	5190.06	6519.40	14948.00	10432.67	6905.32	7094.74
95th	1131.82	1231.74	1350.67	1501.37	1662.21	1855.59	1991.26
75th	881.93	941.16	1056.99	1237.63	1357.27	1496.03	1692.10
50th (median)	803.40	848.00	931.86	1097.09	1217.64	1386.59	1554.38
25th	730.41	772.87	870.13	1006.30	1098.21	1256.64	1416.03
5th	664.20	693.88	767.32	915.73	1036.43	1159.87	1309.38
1st	373.08	453.37	499.01	496.79	717.13	753.69	823.21
Range	4003.72	4736.69	6020.39	14451.21	9715.54	6151.63	6771.52
Restricted range	467.61	537.86	583.35	585.64	625.77	695.72	681.88
Restricted range ratio	0.704	0.775	0.760	0.640	0.604	0.600	0.521
Mean deviation from median	107.46	117.69	128.01	151.23	161.35	168.23	180.74
Relative deviation from median	0.134	0.139	0.137	0.138	0.133	0.121	0.116
Mean	831.93	885.67	981.51	1150.99	1268.23	1420.70	1586.94
Standard deviation	162.911	177.311	195.481	222.826	233.738	252.750	267.449
Coefficient of variation	0.196	0.200	0.199	0.194	0.184	0.178	0.169
Mean deviation from mean	110.98	121.92	135.96	158.22	165.50	170.98	183.03
Relative deviation from mean	0.133	0.138	0.139	0.137	0.131	0.120	0.115
Gini coefficient	0.096	0.099	0.097	0.096	0.091	0.087	0.083
Regression results							
Adj. wealth: Linear F	500.621	545.907	487.464	380.662	277.284	181.656	182.437
Elasticity	0.129	0.145	0.146	0.133	0.098	0.069	0.070
Quadratic F	305.560	310.399	265.442	205.344	171.884	128.505	126.722
Elasticity	0.166	0.177	0.175	0.159	0.138	0.112	0.110
Income: Linear F	70.061	64.412	64.641	65.563	53.902	53.715	62.001
Elasticity	0.077	0.072	0.072	0.071	0.064	0.071	0.071
Quadratic F	77.311	74.621	69.629	67.659	52.024	40.153	44.725
Elasticity	0.160	0.157	0.154	0.149	0.129	0.111	0.108
Adj. tax rate: Linear F	22.019	11.284	17.767	156.387	64.146	23.842	15.299
Elasticity	0.151	0.112	0.135	0.386	0.313	0.185	0.148
Quadratic F	18.384	10.157	16.901	116.621	86.667	20.918	20.128
Elasticity	0.139	0.113	0.124	0.383	0.378	0.175	0.144
Mean for adj. wealth decile							
1st	757.15	798.64	936.73	1169.37	1263.68	1436.09	1575.55
2nd	735.57	784.13	878.09	1011.49	1137.45	1322.59	1522.61
3rd	755.19	779.87	888.95	1052.72	1161.36	1302.91	1437.92
4th	791.43	825.47	910.36	1027.20	1150.40	1297.45	1440.72
5th	802.05	838.24	901.56	1078.35	1166.13	1336.81	1484.77
6th	781.37	882.64	965.60	1120.97	1274.19	1372.34	1631.79
7th	778.41	839.46	921.99	1125.19	1224.81	1371.82	1534.79
8th	906.98	953.53	1024.51	1170.16	1319.94	1503.79	1557.96
9th	922.96	990.63	1094.52	1257.71	1375.39	1506.70	1722.58
10th	1088.15	1164.08	1292.78	1496.80	1608.93	1756.55	1960.73
Mean for income decile							
1st	775.88	800.35	894.43	1054.60	1157.20	1330.57	1474.07
2nd	752.96	810.21	922.25	1103.81	1211.96	1367.67	1516.78
3rd	770.07	803.68	888.46	1051.96	1198.95	1343.30	1496.63
4th	746.57	818.24	931.20	1094.85	1166.43	1285.03	1486.84
5th	788.43	853.94	902.21	1041.26	1185.39	1360.59	1507.40
6th	805.83	836.68	949.69	1120.43	1281.26	1380.55	1549.34
7th	871.01	893.48	983.73	1128.85	1255.59	1445.16	1602.25
8th	818.78	934.53	1031.20	1223.52	1320.43	1528.84	1699.34
9th	923.65	962.82	1056.45	1256.71	1345.84	1472.02	1662.14
10th	1040.67	1115.08	1220.32	1379.21	1492.78	1627.30	1796.06
Mean for district type							
Below median ADM	850.04	911.80	1009.82	1173.63	1314.98	1476.17	1636.68
Above median ADM	813.81	859.54	953.20	1128.36	1221.47	1365.24	1537.21
Below median % urban	805.61	858.13	953.44	1125.34	1254.97	1401.63	1561.39
Above median % urban	853.16	907.67	1002.55	1165.70	1268.19	1426.58	1596.78
Below median % white	840.41	892.54	995.45	1174.78	1285.76	1445.93	1616.31
Above median % white	818.36	873.27	960.53	1116.26	1237.40	1382.27	1541.86
Below median % poverty	860.19	917.26	1007.46	1147.61	1249.81	1397.59	1568.81
Above median % poverty	798.58	848.54	948.53	1143.43	1273.36	1430.61	1589.36
Correlation with							
ADM	-0.079	-0.092	-0.099	-0.090	-0.152	-0.180	-0.163
Adj. wealth	0.643	0.661	0.640	0.598	0.539	0.461	0.463
Income	0.402	0.389	0.389	0.392	0.362	0.362	0.386
% Urban	0.199	0.210	0.220	0.190	0.111	0.133	0.128
% White	-0.174	-0.184	-0.240	-0.298	-0.315	-0.350	-0.337
% Poverty	-0.194	-0.203	-0.172	-0.023	0.078	0.094	0.048
Adj. tax rate	0.174	0.126	0.157	0.431	0.294	0.185	0.150
Gini by adj. wealth distribution	0.272	0.266	0.265	0.271	0.281	0.289	0.286
Gini by income distribution	0.251	0.254	0.264	0.272	0.285	0.293	0.301



TABLE 1. Summary Statistics, 1990-1999  
 (a) Summary Statistics, 1990-1999

Variable	1990-1999	1990-1999	1990-1999	1990-1999	1990-1999	1990-1999	1990-1999
Income	1,111.11	1,111.11	1,111.11	1,111.11	1,111.11	1,111.11	1,111.11
1st	1,111.11	1,111.11	1,111.11	1,111.11	1,111.11	1,111.11	1,111.11
2nd	1,111.11	1,111.11	1,111.11	1,111.11	1,111.11	1,111.11	1,111.11
3rd	1,111.11	1,111.11	1,111.11	1,111.11	1,111.11	1,111.11	1,111.11
4th	1,111.11	1,111.11	1,111.11	1,111.11	1,111.11	1,111.11	1,111.11
5th	1,111.11	1,111.11	1,111.11	1,111.11	1,111.11	1,111.11	1,111.11
6th	1,111.11	1,111.11	1,111.11	1,111.11	1,111.11	1,111.11	1,111.11
7th	1,111.11	1,111.11	1,111.11	1,111.11	1,111.11	1,111.11	1,111.11
8th	1,111.11	1,111.11	1,111.11	1,111.11	1,111.11	1,111.11	1,111.11
9th	1,111.11	1,111.11	1,111.11	1,111.11	1,111.11	1,111.11	1,111.11
10th	1,111.11	1,111.11	1,111.11	1,111.11	1,111.11	1,111.11	1,111.11
Range	1,111.11	1,111.11	1,111.11	1,111.11	1,111.11	1,111.11	1,111.11
Restricted range	1,111.11	1,111.11	1,111.11	1,111.11	1,111.11	1,111.11	1,111.11
Restricted range ratio	1,111.11	1,111.11	1,111.11	1,111.11	1,111.11	1,111.11	1,111.11
Mean deviation from median	1,111.11	1,111.11	1,111.11	1,111.11	1,111.11	1,111.11	1,111.11
Relative deviation from median	1,111.11	1,111.11	1,111.11	1,111.11	1,111.11	1,111.11	1,111.11
Mean	1,111.11	1,111.11	1,111.11	1,111.11	1,111.11	1,111.11	1,111.11
Standard deviation	1,111.11	1,111.11	1,111.11	1,111.11	1,111.11	1,111.11	1,111.11
Coefficient of variation	1,111.11	1,111.11	1,111.11	1,111.11	1,111.11	1,111.11	1,111.11
Mean deviation from mean	1,111.11	1,111.11	1,111.11	1,111.11	1,111.11	1,111.11	1,111.11
Relative deviation from mean	1,111.11	1,111.11	1,111.11	1,111.11	1,111.11	1,111.11	1,111.11
Gini coefficient	1,111.11	1,111.11	1,111.11	1,111.11	1,111.11	1,111.11	1,111.11
Regression results							
Adj. wealth: Linear F	666.344	576.854	556.558	458.180	274.773	297.421	321.205
Elasticity	0.132	0.135	0.146	0.122	0.122	0.099	0.096
Quadratic F	365.595	307.775	301.380	229.987	162.248	233.869	248.225
Elasticity	0.172	0.169	0.193	0.132	0.183	0.182	0.174
Income: Linear F	7.586	13.258	9.714	5.199	22.743	24.080	22.231
Elasticity	0.011	0.013	0.012	0.010	0.020	0.028	0.027
Quadratic F	43.978	41.198	54.021	81.698	64.921	79.608	79.972
Elasticity	0.125	0.110	0.143	0.194	0.162	0.157	0.149
Adj. tax rate: Linear F	1.451	2.435	3.329	2.162	17.135	50.908	41.016
Elasticity	-0.048	-0.058	-0.072	0.060	-0.212	-0.341	-0.286
Quadratic F	45.539	38.145	41.240	27.335	43.026	77.447	59.159
Elasticity	-0.160	-0.154	-0.203	0.006	-0.204	-0.291	-0.310
Mean for adj. wealth decile							
1st	486.81	519.10	556.84	655.41	630.14	697.76	772.38
2nd	500.70	516.82	549.94	610.89	609.50	673.38	761.36
3rd	481.56	496.03	537.98	636.24	631.01	709.18	743.15
4th	486.87	511.02	536.58	618.24	636.04	686.21	772.26
5th	479.71	528.89	558.82	630.25	651.28	725.39	803.21
6th	526.88	566.03	585.17	673.44	698.44	753.41	826.13
7th	548.65	581.59	618.12	695.19	746.38	783.73	855.95
8th	574.27	636.57	693.02	731.59	856.38	853.82	920.89
9th	612.11	648.68	738.99	804.58	899.83	964.44	1026.88
10th	840.70	878.30	956.81	1032.70	1144.92	1280.26	1355.90
Mean for income decile							
1st	475.05	499.65	541.37	607.09	568.56	643.42	721.57
2nd	471.62	499.86	535.28	647.51	569.59	626.58	718.26
3rd	483.19	503.13	548.38	635.09	644.67	700.78	752.86
4th	483.24	530.94	547.14	631.48	640.34	685.09	742.75
5th	483.82	516.80	550.11	619.32	654.98	713.53	806.59
6th	514.57	544.38	570.82	660.48	679.36	723.64	806.44
7th	513.29	538.30	593.90	677.83	674.28	754.58	825.91
8th	539.33	580.06	614.78	683.15	681.69	740.45	814.30
9th	591.05	608.58	653.01	741.81	749.42	813.83	911.89
10th	705.66	776.77	820.00	892.79	874.88	940.15	1020.85
Mean for district type							
Below median ADM	580.13	615.62	667.17	737.27	833.99	894.98	956.58
Above median ADM	527.52	560.98	599.29	680.44	666.79	730.54	811.04
Below median % urban	472.01	498.74	527.89	608.82	631.58	691.38	765.76
Above median % urban	580.16	620.95	667.07	750.49	715.98	777.03	858.53
Below median % white	526.03	562.67	601.12	688.92	678.41	734.23	810.37
Above median % white	526.14	557.03	593.83	670.39	669.14	734.18	813.91
Below median % poverty	559.06	601.21	643.72	719.34	726.11	795.88	871.70
Above median % poverty	493.10	518.48	551.24	639.97	621.45	672.53	752.58
Correlation with							
ADM	-0.001	0.009	0.003	0.020	-0.123	-0.121	-0.117
Adj. wealth	0.694	0.671	0.665	0.633	0.538	0.553	0.570
Income	0.143	0.188	0.162	0.119	0.245	0.251	0.243
% Urban	0.468	0.497	0.531	0.497	0.274	0.275	0.272
% White	-0.134	-0.118	-0.119	-0.173	0.035	0.013	-0.045
% Poverty	-0.324	-0.366	-0.379	-0.301	-0.444	-0.473	-0.451
Adj. tax rate	-0.045	-0.059	-0.069	0.056	-0.157	-0.265	-0.241
Gini by adj. wealth distribution	0.483	0.474	0.472	0.497	0.486	0.480	0.484
Gini by income distribution	0.412	0.426	0.424	0.416	0.411	0.352	0.358

Table A-1  
DISTRIBUTION OF INSTRUCTIONAL EXPENDITURES PER PUPIL  
IN CALIFORNIA ELEMENTARY DISTRICTS (continued)

Measure	1970-71	1971-72	1972-73	Weighted 1970-72	1972-73	1973-74	1974-75
Percentile							
100th	1911.50	1733.51	1811.51	1702.10	2544.55	3261.20	2484.67
95th	1244.51	1177.04	849.72	917.16	884.88	975.47	1078.98
75th	597.18	611.76	682.08	766.96	720.03	742.33	876.71
50th (median)	545.34	576.35	611.14	698.81	662.95	728.10	798.31
25th	499.28	528.79	571.06	650.98	615.30	668.41	739.86
5th	428.15	453.29	479.05	549.29	537.98	596.00	653.81
1st	277.12	294.71	287.89	337.51	29.44	366.08	484.99
Range	1634.38	1438.80	1523.64	1364.58	2515.10	2897.12	1999.68
Restricted range	296.67	323.75	370.67	367.87	346.90	379.47	425.16
Restricted range ratio	0.693	0.714	0.774	0.670	0.645	0.637	0.650
Mean deviation from median	64.68	71.74	77.42	84.99	81.13	83.90	92.40
Relative deviation from median	0.119	0.124	0.126	0.122	0.122	0.115	0.116
Mean	554.35	591.36	634.29	717.04	684.35	746.56	821.11
Standard deviation	92.476	100.290	110.931	116.898	123.654	121.127	127.545
Coefficient of variation	0.167	0.170	0.173	0.163	0.181	0.162	0.155
Mean deviation from mean	65.29	72.70	79.24	86.28	83.66	85.38	93.28
Relative deviation from mean	0.118	0.123	0.125	0.120	0.122	0.114	0.114
Gini coefficient	0.087	0.090	0.091	0.087	0.089	0.083	0.081
Regression results							
Adj. wealth: Linear F	164.850	168.144	148.633	107.903	173.996	153.016	162.269
Elasticity	0.074	0.082	0.083	0.069	0.081	0.058	0.061
Quadratic F	95.671	97.285	85.656	61.472	110.454	118.581	126.352
Elasticity	0.096	0.105	0.108	0.090	0.117	0.101	0.104
Income: Linear F	52.355	54.828	50.544	42.091	48.868	68.926	74.345
Elasticity	0.062	0.062	0.061	0.054	0.063	0.074	0.074
Quadratic F	72.873	75.027	74.894	62.239	56.463	63.027	68.905
Elasticity	0.145	0.146	0.152	0.135	0.136	0.126	0.124
Adj. tax rate: Linear F	100.208	75.818	97.281	316.439	43.804	5.858	0.836
Elasticity	0.262	0.235	0.261	0.423	0.257	0.085	0.032
Quadratic F	50.612	39.188	50.150	179.412	43.104	15.986	10.856
Elasticity	0.259	0.235	0.257	0.422	0.300	0.073	0.029
Mean for adj. wealth decile							
1st	522.02	565.03	616.93	721.60	655.29	720.56	769.87
2nd	509.38	540.48	580.49	656.59	638.97	689.63	759.77
3rd	520.57	544.76	592.56	697.39	613.37	702.58	791.59
4th	540.81	566.73	616.14	674.47	666.53	708.82	760.86
5th	552.42	582.84	601.62	695.79	663.36	714.68	775.24
6th	533.28	577.40	625.52	700.10	654.84	738.53	818.64
7th	512.76	559.50	600.39	700.14	662.76	718.08	806.61
8th	580.08	614.96	648.62	708.06	684.89	748.58	823.21
9th	603.51	656.18	699.33	768.17	747.73	810.84	899.52
10th	658.67	705.69	761.34	848.06	855.80	913.31	1005.82
Mean for income decile							
1st	508.50	530.23	573.51	661.14	621.45	698.87	762.58
2nd	503.46	550.70	601.68	692.85	654.92	711.21	756.40
3rd	518.53	553.14	570.98	658.39	625.63	695.83	770.72
4th	519.56	548.22	599.91	679.77	651.02	703.41	776.99
5th	541.21	585.61	612.44	691.02	665.52	714.55	802.29
6th	544.20	570.24	626.21	697.26	654.62	706.45	785.76
7th	574.79	600.13	642.43	724.66	679.54	766.19	831.86
8th	555.61	620.22	660.64	752.55	699.39	772.64	872.66
9th	611.79	643.02	696.16	779.83	756.43	796.85	882.83
10th	685.83	741.71	794.08	864.84	828.75	896.71	968.12
Mean for district type							
Below median ADM	548.51	587.06	627.60	703.67	691.58	751.38	826.67
Above median ADM	558.19	595.65	640.98	730.41	677.13	741.74	815.56
Below median % urban	535.01	567.86	608.89	691.50	668.48	726.25	794.97
Above median % urban	577.69	620.78	666.72	748.97	698.98	766.28	847.07
Below median % white	566.51	605.80	651.15	738.34	689.10	754.43	818.27
Above median % white	546.19	582.84	624.46	702.13	678.36	738.11	823.77
Below median % poverty	581.24	623.65	670.74	743.65	718.51	789.60	871.77
Above median % poverty	531.46	564.99	604.87	696.82	648.95	702.94	770.27
Correlation with							
ADM	0.118	0.135	0.141	0.172	-0.039	0.014	-0.040
Adj. wealth	0.434	0.439	0.418	0.369	0.452	0.430	0.442
Income	0.355	0.363	0.350	0.323	0.347	0.402	0.417
% Urban	0.400	0.422	0.439	0.432	0.241	0.275	0.258
% White	-0.144	-0.130	-0.166	-0.248	0.006	-0.008	-0.045
% Poverty	-0.288	-0.334	-0.332	-0.220	-0.377	-0.464	-0.463
Adj. tax rate	0.352	0.312	0.349	0.562	0.247	0.093	0.035
Gini by adj. wealth distribution	0.296	0.290	0.286	0.293	0.287	0.289	0.283
Gini by income distribution	0.253	0.255	0.262	0.274	0.279	0.285	0.292

Table A.7  
DISTRIBUTION OF LOCAL ADJUSTED TAX RATES  
IN CALIFORNIA ELEMENTARY DISTRICTS

Measure	1970-71	1971-72	1972-73	Unweighted 1973-74	1974-75	1975-76	1976-77
Percentile							
100th	11.86	11.17	12.68	11.01	11.22	12.76	14.20
95th	8.76	9.00	9.14	8.38	8.11	8.45	8.29
75th	6.45	6.70	6.87	6.60	6.78	7.03	6.89
50th (median)	5.45	5.56	5.66	5.60	5.97	6.14	6.09
25th	4.41	4.44	4.60	4.35	4.73	5.00	5.09
5th	3.05	2.92	3.17	2.95	2.90	2.91	3.02
1st	0.96	1.38	1.51	1.43	0.78	0.46	0.46
Range	10.90	9.74	11.16	9.58	12.44	12.30	13.74
Restricted range	5.71	6.08	6.02	5.43	5.22	5.55	5.27
Restricted range ratio	1.870	2.078	1.927	1.842	1.801	1.908	1.744
Mean deviation from median	1.30	1.39	1.42	1.31	1.25	1.27	1.21
Relative deviation from median	0.239	0.250	0.252	0.235	0.212	0.208	0.198
Mean	5.53	5.66	5.83	5.57	5.74	5.99	5.96
Standard deviation	1.669	1.761	1.814	1.635	1.617	1.678	1.647
Coefficient of variation	0.302	0.311	0.314	0.293	0.282	0.280	0.276
Mean deviation from mean	1.31	1.39	1.43	1.31	1.26	1.28	1.21
Relative deviation from mean	0.236	0.246	0.245	0.235	0.220	0.214	0.204
Gini coefficient	0.168	0.175	0.175	0.166	0.156	0.155	0.149
Regression results							
Adj. wealth: Linear F	142.271	160.151	155.807	72.470	132.092	140.549	145.477
Elasticity	-0.074	-0.088	-0.089	-0.056	-0.068	-0.058	-0.060
Quadratic F	106.250	117.177	116.502	47.723	77.211	108.594	101.985
Elasticity	-0.133	-0.156	-0.171	-0.101	-0.104	-0.112	-0.108
Income: Linear F	0.004	0.530	0.255	1.650	0.796	0.312	0.452
Elasticity	-0.000	-0.004	-0.003	0.007	0.004	0.004	0.004
Quadratic F	4.006	1.366	2.338	32.233	14.379	2.105	0.830
Elasticity	0.051	0.022	0.040	0.186	0.102	0.035	0.020
Mean for adj. wealth decile							
1st	6.40	6.52	6.66	5.30	5.95	6.30	6.21
2nd	6.75	7.03	7.35	5.45	5.95	6.65	6.65
3rd	6.33	6.51	6.96	5.98	6.20	6.83	6.53
4th	5.79	6.17	6.33	5.93	6.29	6.34	6.32
5th	5.70	6.00	6.05	6.34	6.32	6.45	6.41
6th	5.67	5.71	5.88	6.14	6.35	6.44	6.79
7th	5.38	5.36	5.65	6.14	6.25	6.25	6.11
8th	5.11	5.18	5.00	5.49	5.12	5.66	5.62
9th	4.42	4.31	4.54	4.87	4.91	5.21	5.14
10th	3.73	3.77	3.92	4.09	4.07	3.77	3.86
Mean for income decile							
1st	5.76	6.22	6.59	5.27	6.15	6.79	6.78
2nd	6.11	6.38	6.16	5.27	5.95	6.28	6.25
3rd	6.24	6.41	7.01	5.81	5.58	6.30	6.27
4th	5.98	6.00	6.01	5.57	6.14	6.42	6.57
5th	6.11	6.31	6.51	5.55	5.92	6.42	6.31
6th	6.51	6.80	6.94	6.31	6.55	6.73	6.59
7th	6.93	7.09	7.13	6.35	6.35	6.92	6.69
8th	6.57	6.84	7.35	6.89	6.84	6.87	6.72
9th	6.66	6.91	6.79	7.12	6.99	7.11	7.08
10th	7.05	7.11	7.38	7.47	7.17	6.84	6.57
Mean for district type							
Below median ADM	4.59	4.62	4.82	4.97	5.08	5.26	5.31
Above median ADM	6.47	6.69	6.84	6.18	6.40	6.73	6.61
Below median % urban	5.67	5.86	6.03	5.51	5.91	6.26	6.29
Above median % urban	7.12	7.36	7.54	6.81	6.82	7.08	6.87
Below median % white	6.33	6.55	6.70	6.03	6.33	6.72	6.66
Above median % white	6.46	6.66	6.87	6.29	6.40	6.62	6.50
Below median % poverty	6.91	7.08	7.30	6.71	6.65	6.89	6.73
Above median % poverty	5.87	6.13	6.27	5.62	6.08	6.45	6.43
Correlation with							
ADM	0.517	0.527	0.517	0.375	0.331	0.333	0.314
Adj. wealth	-0.409	-0.430	-0.426	-0.309	-0.404	-0.415	-0.423
Income	-0.003	-0.038	-0.027	0.067	0.047	0.030	0.036
% Urban	0.494	0.502	0.468	0.425	0.375	0.350	0.249
% White	-0.061	-0.041	-0.024	-0.021	-0.151	-0.119	-0.126
% Poverty	-0.348	-0.325	-0.335	-0.401	-0.194	-0.145	-0.124
Gini by adj. wealth distribution	0.633	0.630	0.634	0.611	0.622	0.624	0.620
Gini by income distribution	0.451	0.471	0.470	0.423	0.438	0.395	0.403

Table A.7  
DISTRIBUTION OF LOCAL ADJUSTED TAX RATES  
IN CALIFORNIA ELEMENTARY DISTRICTS (continued)

Measure	1970-71	1971-72	1972-73	Weighted 1973-74	1974-75	1975-76	1976-77
Percentile							
100th	11.86	11.12	12.68	11.01	13.22	12.76	14.20
95th	9.89	10.30	10.46	9.35	8.76	8.78	9.19
75th	8.27	8.63	8.78	7.70	7.40	7.78	7.64
50th (median)	6.98	7.34	7.76	6.63	6.71	6.82	6.74
25th	5.98	6.31	6.34	5.79	6.11	6.34	6.22
5th	4.76	4.94	4.97	4.20	4.88	5.35	5.30
1st	0.96	1.38	1.51	1.43	0.78	0.46	0.46
Range	10.90	9.74	11.16	9.58	12.44	12.30	13.74
Restricted range	5.13	5.36	5.49	5.15	3.88	3.43	3.90
Restricted range ratio	1.677	1.086	1.105	1.227	0.795	0.641	0.736
Mean deviation from median	1.33	1.38	1.45	1.12	0.86	0.93	0.88
Relative deviation from median	0.191	0.188	0.186	0.169	0.128	0.136	0.130
Mean	7.18	7.42	7.64	6.73	7.04	6.92	6.92
Standard deviation	1.614	1.671	1.767	1.456	1.368	1.253	1.184
Coefficient of variation	0.225	0.225	0.231	0.216	0.173	0.178	0.171
Mean deviation from mean	1.34	1.38	1.45	1.13	0.86	0.94	0.89
Relative deviation from mean	0.187	0.186	0.190	0.167	0.127	0.134	0.128
Gini coefficient	0.127	0.128	0.131	0.121	0.094	0.095	0.092
Regression results							
Adj. wealth: Linear F	47.974	64.471	71.909	0.005	14.397	37.622	46.745
Elasticity	-0.058	-0.072	-0.081	-0.001	-0.025	-0.034	-0.039
Quadratic F	30.177	39.353	44.989	3.313	7.195	27.807	32.951
Elasticity	-0.082	-0.098	-0.114	0.021	-0.024	-0.060	-0.065
Income: Linear F	0.202	1.221	1.352	15.636	7.880	0.000	0.663
Elasticity	-0.006	-0.013	-0.014	0.046	0.026	-0.000	-0.009
Quadratic F	0.107	0.743	0.938	23.523	11.415	0.070	0.410
Elasticity	-0.004	-0.021	-0.026	0.122	0.068	0.004	-0.012
Mean for adj. wealth decile							
1st	7.00	7.15	7.94	6.23	6.45	6.91	6.91
2nd	7.71	8.21	7.76	6.31	6.53	7.44	7.26
3rd	7.53	7.65	8.40	6.04	6.38	7.37	7.40
4th	7.66	8.18	8.74	6.48	6.53	6.83	6.89
5th	7.89	7.73	8.05	6.88	7.14	7.00	6.83
6th	7.19	7.94	7.66	6.84	6.70	7.33	7.04
7th	6.63	6.90	7.09	6.96	7.18	6.95	7.05
8th	7.12	7.32	7.32	7.30	6.98	7.42	6.77
9th	6.92	7.05	7.11	7.37	7.25	6.92	7.04
10th	6.12	6.11	6.29	6.85	6.33	6.21	6.04
Mean for income decile							
1st	7.08	6.92	7.44	6.14	6.32	7.27	7.22
2nd	7.14	8.15	8.39	6.39	6.50	6.70	7.02
3rd	6.76	6.88	7.12	5.77	6.11	6.86	6.33
4th	7.14	7.58	7.71	6.45	6.33	6.69	6.86
5th	7.69	8.35	8.05	6.66	6.92	7.06	6.83
6th	7.87	7.06	7.95	6.62	6.73	7.33	7.31
7th	7.90	8.25	8.24	7.16	7.29	7.52	7.20
8th	7.17	7.83	7.79	7.45	7.39	7.36	7.29
9th	6.88	7.21	7.49	7.77	7.48	7.52	7.28
10th	7.34	7.37	7.58	7.67	7.14	6.79	6.53
Mean for district type							
Below median ADM	6.66	6.82	6.98	6.35	6.49	6.69	6.57
Above median ADM	7.70	8.03	8.29	7.10	7.00	7.38	7.28
Below median % urban	6.84	7.13	7.37	6.45	6.59	6.92	6.80
Above median % urban	7.75	7.99	8.18	7.17	7.05	7.29	7.17
Below median % white	7.32	7.63	7.87	6.89	6.90	7.26	7.18
Above median % white	7.27	7.49	7.68	6.73	6.74	6.96	6.79
Below median % poverty	7.88	8.15	8.34	7.33	7.15	7.33	7.14
Above median % poverty	6.71	6.97	7.21	6.29	6.49	6.88	6.83
Correlation with							
ADM	0.482	0.463	0.460	0.293	0.268	0.264	0.292
Adj. wealth	-0.252	-0.289	-0.305	-0.003	-0.144	-0.230	-0.256
Income	-0.024	-0.058	-0.061	0.203	0.147	-0.001	-0.043
% Urban	0.395	0.396	0.391	0.388	0.337	0.298	0.253
% White	-0.148	-0.116	-0.122	-0.127	-0.191	-0.200	-0.230
% Poverty	-0.368	-0.355	-0.349	-0.413	-0.269	-0.189	-0.164
Gini by adj. wealth distribution	0.371	0.371	0.369	0.310	0.326	0.346	0.344
Gini by income distribution	0.311	0.318	0.328	0.282	0.298	0.323	0.335

Table A.8  
DISTRIBUTION OF GENERAL REVENUE PER PUPIL  
IN CALIFORNIA HIGH SCHOOL DISTRICTS

Measure	1970-71	1971-72	1972-73	Unweighted 1973-74	1974-75	1975-76	1976-77
Percentile							
100th	1910.38	2215.89	2355.09	2535.82	2685.41	2675.81	3023.06
95th	1763.18	1814.99	1739.66	2064.56	1960.32	2347.65	2553.14
75th	1119.59	1214.51	1323.74	1476.54	1446.27	1630.42	1769.82
50th (median)	992.97	1061.81	1178.28	1273.04	1338.78	1457.15	1597.28
25th	910.79	957.86	1031.58	1154.63	1185.17	1341.00	1460.01
5th	805.30	826.42	894.49	953.49	1001.94	1114.11	1201.57
1st	690.18	643.60	766.06	844.68	891.46	994.66	1121.07
Range	1220.12	1572.21	1589.03	1691.14	1793.96	1679.15	1902.00
Restricted range	957.88	988.56	845.18	1111.06	958.37	1233.54	1351.57
Restricted range ratio	1.189	1.196	0.945	1.165	0.957	1.107	1.125
Mean deviation from median	169.49	190.96	201.13	222.32	208.87	225.55	240.83
Relative deviation from median	0.171	0.180	0.171	0.175	0.156	0.155	0.151
Mean	1066.56	1126.08	1226.06	1351.03	1384.84	1532.81	1673.34
Standard deviation	257.357	285.682	280.971	310.773	304.095	334.212	360.576
Coefficient of variation	0.241	0.254	0.229	0.230	0.220	0.218	0.215
Mean deviation from mean	183.99	200.77	205.73	230.42	213.16	238.73	252.11
Relative deviation from mean	0.173	0.178	0.168	0.171	0.154	0.156	0.151
Gini coefficient	0.121	0.127	0.120	0.121	0.113	0.112	0.109
Regression results							
Adj. wealth: Linear F	315.555	280.230	225.785	232.300	116.464	127.813	160.645
Elasticity	0.313	0.333	0.315	0.354	0.271	0.247	0.254
Quadratic F	205.099	160.760	133.999	126.111	80.822	92.685	101.869
Elasticity	0.434	0.434	0.415	0.422	0.391	0.380	0.357
Income: Linear F	18.294	21.176	20.232	13.524	9.000	2.703	2.613
Elasticity	0.161	0.164	0.158	0.136	0.099	0.062	0.058
Quadratic F	9.071	10.514	10.103	6.706	4.466	1.357	1.316
Elasticity	0.166	0.157	0.145	0.131	0.095	0.055	0.051
Adj. tax rate: Linear F	15.880	11.475	9.470	0.002	0.837	2.036	8.720
Elasticity	-0.398	-0.340	-0.282	-0.006	-0.102	-0.164	-0.306
Quadratic F	14.636	9.033	6.600	2.664	7.140	10.157	14.339
Elasticity	-0.404	-0.346	-0.280	-0.004	0.064	0.054	-0.153
Mean for adj. wealth decile							
1st	815.18	844.92	925.06	1013.40	1073.12	1214.03	1303.21
2nd	894.31	906.21	1028.51	1127.01	1214.81	1302.94	1513.44
3rd	973.78	1029.57	1094.63	1262.30	1239.41	1421.18	1537.55
4th	930.77	1027.93	1137.07	1261.76	1262.71	1377.70	1546.11
5th	1012.50	1041.96	1143.39	1206.97	1324.81	1513.82	1574.71
6th	1001.41	1100.59	1170.08	1253.16	1335.08	1439.51	1539.46
7th	1012.52	1115.27	1220.65	1325.05	1338.83	1474.33	1581.66
8th	1122.22	1152.50	1352.57	1486.91	1501.11	1621.35	1790.40
9th	1286.28	1302.23	1406.43	1609.14	1657.82	1842.13	1960.00
10th	1616.59	1739.62	1782.24	1964.61	1900.74	2121.06	2386.84
Mean for income decile							
1st	867.40	908.31	1072.68	1188.33	1244.58	1360.41	1543.18
2nd	993.63	1052.73	1086.59	1139.40	1214.29	1385.58	1527.07
3rd	918.85	972.36	1079.21	1197.07	1233.87	1493.30	1619.18
4th	1008.89	1064.17	1155.83	1428.13	1407.54	1605.57	1532.70
5th	962.92	1055.75	1269.97	1375.85	1447.74	1491.49	1655.63
6th	1173.56	1137.23	1161.94	1263.70	1261.43	1473.70	1682.10
7th	1045.62	1075.61	1181.99	1235.42	1312.75	1514.82	1715.30
8th	1055.42	1166.37	1209.78	1375.17	1408.03	1455.44	1558.38
9th	1042.76	1099.77	1258.27	1419.93	1407.22	1554.53	1670.37
10th	1192.52	1241.63	1353.17	1432.93	1417.45	1523.42	1665.93
Mean for district type							
Below median ADM	1142.99	1208.11	1311.30	1482.91	1512.13	1682.46	1825.94
Above median ADM	990.12	1044.05	1140.82	1219.15	1257.56	1383.15	1520.74
Below median % urban	1038.41	1089.14	1206.52	1350.60	1377.48	1529.31	1686.37
Above median % urban	1013.90	1065.64	1159.37	1260.59	1293.50	1442.34	1547.60
Below median % white	1025.74	1069.18	1176.89	1301.96	1325.97	1482.69	1624.63
Above median % white	1026.58	1085.60	1188.99	1309.22	1345.01	1488.96	1609.34
Below median % poverty	1048.82	1101.81	1207.28	1321.69	1352.00	1472.73	1597.86
Above median % poverty	1003.50	1052.98	1158.61	1289.49	1318.98	1498.92	1636.11
Correlation with							
ADM	-0.222	-0.225	-0.245	-0.327	-0.309	-0.349	-0.350
Adj. wealth	0.855	0.842	0.814	0.821	0.714	0.730	0.766
Income	0.385	0.410	0.402	0.339	0.282	0.159	0.157
% Urban	-0.097	-0.116	-0.167	-0.226	-0.233	-0.224	-0.268
% White	0.019	0.065	0.063	0.057	0.067	0.044	-0.010
% Poverty	-0.113	-0.129	-0.123	-0.063	-0.044	0.113	0.039
Adj. tax rate	-0.347	-0.301	-0.276	-0.005	-0.086	-0.134	-0.268
Gini by adj. wealth distribution	0.198	0.197	0.194	0.179	0.199	0.199	0.204
Gini by income distribution	0.218	0.216	0.217	0.224	0.231	0.246	0.248

Table A.8  
DISTRIBUTION OF GENERAL REVENUE PER PUPIL  
IN CALIFORNIA HIGH SCHOOL DISTRICTS (continued)

Measure	1970-71	1971-72	1972-73	Weighted 1973-74	1974-75	1975-76	1976-77
Percentile							
100th	1910.30	2215.80	2355.09	2535.82	2685.41	2673.81	3023.06
95th	1403.84	1476.66	1617.71	1674.45	1689.24	1833.02	1919.50
75th	1059.43	1117.41	1218.76	1331.13	1371.00	1476.16	1614.61
50th (median)	964.06	1018.41	1124.56	1242.69	1279.50	1396.46	1535.78
25th	905.82	929.16	999.14	1085.84	1094.01	1230.87	1329.01
5th	699.09	716.67	774.74	877.90	901.17	994.66	1186.91
1st	690.18	643.60	766.06	844.68	891.46	994.66	1121.07
Range	1220.12	1572.21	1589.03	1691.14	1793.96	1679.15	1902.00
Restricted range	704.75	760.00	842.97	796.55	788.07	838.36	732.59
Restricted range ratio	1.008	1.060	1.088	0.907	0.874	0.843	0.617
Mean deviation from median	122.19	136.53	145.08	176.69	161.63	178.04	176.07
Relative deviation from median	0.127	0.134	0.129	0.142	0.126	0.127	0.115
Mean	990.50	1039.98	1133.56	1213.62	1258.29	1375.98	1505.29
Standard deviation	177.780	194.654	208.069	234.339	212.220	241.729	240.595
Coefficient of variation	0.179	0.187	0.184	0.193	0.169	0.176	0.160
Mean deviation from mean	125.82	138.72	145.81	177.89	163.30	179.44	178.06
Relative deviation from mean	0.127	0.133	0.129	0.147	0.130	0.130	0.118
Gini coefficient	0.094	0.098	0.097	0.105	0.092	0.095	0.085
Regression results							
Adj. wealth: Linear F	237.946	241.783	239.400	207.901	138.362	133.847	147.799
Elasticity	0.323	0.342	0.339	0.348	0.260	0.249	0.240
Quadratic F	146.466	150.408	145.233	113.723	92.751	90.492	89.274
Elasticity	0.391	0.414	0.404	0.399	0.334	0.332	0.304
Income: Linear F	111.916	119.841	107.416	86.190	70.224	39.129	31.293
Elasticity	0.307	0.313	0.292	0.283	0.226	0.194	0.160
Quadratic F	56.413	60.185	54.087	42.733	34.782	19.399	16.070
Elasticity	0.286	0.293	0.268	0.276	0.229	0.189	0.136
Adj. tax rate: Linear F	3.259	4.941	5.995	25.187	7.501	4.337	0.059
Elasticity	-0.176	-0.228	-0.236	0.554	0.316	0.242	0.027
Quadratic F	1.663	2.723	3.258	12.529	6.663	8.372	7.741
Elasticity	-0.176	-0.232	-0.239	0.557	0.398	0.280	0.139
Mean for adj. wealth decile							
1st	730.51	738.23	805.39	874.41	937.40	1038.47	1186.15
2nd	874.04	912.61	1020.08	985.07	1109.30	1115.08	1240.22
3rd	909.30	956.51	1007.99	1184.31	1214.14	1390.07	1475.96
4th	953.34	985.21	1107.38	1143.37	1181.15	1322.98	1529.24
5th	1021.91	1022.12	1157.62	1273.30	1265.32	1427.82	1521.01
6th	952.41	1076.63	1145.75	1306.39	1294.64	1320.28	1509.50
7th	1022.46	1103.04	1195.80	1220.91	1275.97	1431.83	1588.26
8th	1002.63	1054.88	1097.37	1172.10	1328.95	1514.11	1501.23
9th	1074.29	1118.94	1248.58	1310.90	1328.28	1401.61	1558.66
10th	1364.10	1431.67	1549.61	1665.45	1647.79	1797.57	1942.65
Mean for income decile							
1st	818.80	803.38	868.64	956.36	991.36	1134.98	1311.75
2nd	846.43	925.54	1006.92	1047.96	1111.35	1229.87	1348.98
3rd	925.46	998.22	1137.40	1225.51	1294.19	1427.52	1535.68
4th	915.42	935.44	1008.06	1037.56	1146.45	1220.73	1499.50
5th	994.76	1040.42	1135.21	1252.03	1182.90	1337.73	1392.11
6th	1015.54	1047.40	1121.79	1156.09	1313.22	1422.57	1535.30
7th	990.54	1079.76	1202.99	1304.34	1365.75	1478.16	1543.03
8th	1024.87	1068.07	1146.98	1273.03	1290.59	1415.44	1544.04
9th	1050.24	1114.24	1200.38	1314.09	1339.35	1428.93	1527.36
10th	1309.22	1369.70	1473.39	1542.38	1519.32	1634.26	1780.20
Mean for district type							
Below median ADM	1013.30	1065.72	1185.23	1276.22	1268.64	1417.87	1549.99
Above median ADM	967.70	1014.25	1081.89	1151.02	1247.95	1334.09	1460.59
Below median % urban	963.43	1017.11	1117.47	1203.39	1236.99	1382.81	1511.18
Above median % urban	1014.83	1059.33	1142.89	1218.48	1273.90	1363.23	1492.41
Below median % white	1015.35	1062.01	1152.69	1241.18	1274.62	1402.88	1536.10
Above median % white	962.90	1014.42	1107.66	1180.69	1236.27	1343.16	1467.48
Below median % poverty	1044.15	1092.99	1184.14	1259.64	1305.45	1402.91	1526.71
Above median % poverty	934.11	983.45	1076.21	1162.23	1205.45	1343.12	1476.88
Correlation with							
ADM	-0.321	-0.344	-0.361	-0.432	-0.313	-0.385	-0.363
Adj. wealth	0.820	0.823	0.822	0.806	0.743	0.738	0.753
Income	0.718	0.730	0.711	0.673	0.635	0.523	0.481
% Urban	0.043	0.027	-0.002	-0.038	-0.023	-0.061	-0.126
% White	-0.050	-0.020	0.002	-0.043	-0.031	-0.085	-0.095
% Poverty	-0.285	-0.277	-0.252	-0.167	-0.187	-0.018	-0.023
Adj. tax rate	-0.165	-0.203	-0.223	0.428	0.251	0.193	0.023
Gini by adj. wealth distribution	0.150	0.146	0.149	0.155	0.172	0.173	0.169
Gini by income distribution	0.169	0.170	0.178	0.184	0.198	0.211	0.221

Table A-9  
DISTRIBUTION OF GENERAL + PLATE REVENUE PER PUPIL  
IN CALIFORNIA HIGH SCHOOL DISTRICTS

Measure	1970-71	1971-72	1972-73	Unweighted 1973-74	1974-75	1975-76	1976-77
Percentile							
100th	2022.58	2249.10	2355.09	2535.82	2685.41	2843.81	3023.06
95th	1790.15	1830.33	1742.63	2149.10	2069.88	2352.16	2671.67
75th	1164.25	1229.90	1368.76	1521.30	1516.89	1669.88	1794.39
50th (median)	1002.55	1036.10	1196.89	1310.58	1360.74	1474.48	1630.63
25th	938.06	977.40	1045.58	1164.34	1222.82	1365.36	1474.38
5th	816.19	843.47	919.23	955.05	1009.34	1119.55	1209.01
1st	728.40	734.16	797.53	872.90	891.46	1025.69	1121.07
Range	1294.18	1514.93	1557.56	1657.92	1793.96	1648.12	1902.00
Restricted range	979.96	986.89	823.40	1194.06	1060.75	1332.60	1467.61
Restricted range ratio	1.201	1.170	0.896	1.250	1.057	1.101	1.210
Mean deviation from median	169.95	192.34	199.40	225.29	213.05	229.17	253.99
Relative deviation from median	0.170	0.179	0.166	0.172	0.157	0.155	0.157
Mean	1086.46	1151.32	1245.18	1373.82	1410.41	1554.89	1702.45
Standard deviation	260.291	288.741	281.572	313.222	311.749	335.818	376.174
Coefficient of variation	0.240	0.251	0.226	0.228	0.221	0.216	0.221
Mean deviation from mean	185.46	202.44	205.82	233.43	219.74	240.62	265.36
Relative deviation from mean	0.171	0.176	0.165	0.170	0.156	0.155	0.156
Gini coefficient	0.119	0.125	0.118	0.120	0.114	0.111	0.112
Regression results							
Adj. wealth: Linear F	361.729	296.628	246.765	235.458	109.216	130.391	154.443
Elasticity	0.316	0.332	0.315	0.351	0.268	0.246	0.259
Quadratic F	221.030	156.938	138.870	121.526	72.874	96.487	98.633
Elasticity	0.419	0.398	0.397	0.397	0.382	0.381	0.366
Income: Linear F	19.974	22.787	22.720	14.471	10.022	3.679	3.435
Elasticity	0.166	0.165	0.162	0.139	0.107	0.071	0.069
Quadratic F	9.896	11.332	11.335	7.167	4.979	1.822	1.729
Elasticity	0.163	0.156	0.149	0.140	0.112	0.071	0.078
Adj. tax rate: Linear F	20.683	18.093	14.455	0.922	3.028	5.222	15.009
Elasticity	-0.443	-0.411	-0.337	-0.109	-0.193	-0.257	-0.402
Quadratic F	19.177	14.389	10.472	6.260	8.866	14.847	20.702
Elasticity	-0.450	-0.418	-0.335	-0.107	-0.022	-0.018	-0.233
Mean for adj. wealth decile							
1st	858.15	920.07	978.08	1082.70	1142.04	1273.77	1377.21
2nd	911.07	925.53	1033.79	1133.45	1228.86	1308.79	1525.06
3rd	979.93	1051.27	1118.12	1285.96	1245.47	1427.74	1548.31
4th	944.21	1038.67	1147.57	1276.11	1289.33	1396.90	1559.90
5th	1029.74	1050.45	1148.99	1216.64	1340.19	1542.79	1611.12
6th	1018.00	1116.09	1179.16	1260.93	1352.36	1442.77	1543.61
7th	1022.27	1121.64	1226.12	1332.31	1343.68	1477.79	1590.58
8th	1139.40	1172.30	1359.32	1500.81	1512.08	1634.67	1806.64
9th	1295.14	1324.36	1453.63	1655.71	1708.45	1888.84	2013.01
10th	1666.67	1792.84	1807.05	1993.62	1941.59	2154.83	2449.04
Mean for income decile							
1st	880.67	926.23	1089.75	1207.54	1263.59	1382.93	1563.36
2nd	1006.72	1067.48	1100.13	1150.48	1233.41	1396.32	1539.82
3rd	934.66	987.78	1082.79	1211.93	1248.26	1506.34	1633.38
4th	1049.22	1139.30	1166.97	1443.19	1425.55	1621.36	1538.39
5th	969.82	1066.91	1321.95	1384.74	1462.23	1499.68	1666.40
6th	1202.73	1165.54	1183.03	1342.97	1265.84	1478.38	1686.60
7th	1063.73	1093.57	1194.09	1250.99	1346.17	1535.19	1784.08
8th	1069.05	1184.93	1223.42	1391.38	1482.11	1521.51	1573.81
9th	1050.94	1109.74	1263.79	1428.16	1416.01	1560.76	1748.64
10th	1225.50	1278.46	1391.67	1473.54	1467.04	1570.80	1719.38
Mean for district type							
Below median ADM	1167.24	1243.32	1337.36	1515.69	1549.25	1715.71	1871.80
Above median ADM	1005.67	1059.33	1153.01	1231.96	1271.56	1394.07	1533.10
Below median % urban	1059.33	1119.22	1228.55	1375.27	1405.86	1552.58	1720.35
Above median % urban	1031.28	1084.77	1174.97	1281.72	1316.18	1462.07	1570.43
Below median % white	1058.36	1111.12	1209.97	1342.33	1370.24	1521.07	1676.38
Above median % white	1032.26	1092.87	1193.55	1314.66	1351.80	1493.58	1614.39
Below median % poverty	1071.34	1132.71	1228.68	1348.63	1381.29	1496.99	1630.09
Above median % poverty	1019.27	1071.28	1174.84	1308.35	1340.75	1517.66	1660.68
Correlation with							
ADM	-0.230	-0.241	-0.257	-0.340	-0.325	-0.368	-0.364
Adj. wealth	0.870	0.849	0.826	0.823	0.703	0.733	0.760
Income	0.400	0.422	0.422	0.349	0.296	0.185	0.179
% Urban	-0.089	-0.110	-0.162	-0.223	-0.225	-0.226	-0.267
% White	-0.032	-0.007	0.010	-0.003	-0.004	-0.009	-0.077
% Poverty	-0.140	-0.166	-0.146	-0.085	-0.063	0.095	0.015
Adj. tax rate	-0.389	-0.369	-0.334	-0.090	-0.162	-0.211	-0.342
Gini by adj. wealth distribution	0.198	0.198	0.194	0.179	0.199	0.199	0.203
Gini by income distribution	0.216	0.215	0.215	0.223	0.229	0.243	0.246

Table 3.5  
DISTRIBUTION OF GENERAL + PERSONAL REVENUE PER PUPIL  
IN CALIFORNIA HIGH SCHOOL DISTRICTS (continued)

Measure	1970-71	1971-72	1972-73	Weighted 1970-74	1974-75	1975-76	1976-77
Percentile							
100th	2002.55	2249.16	2355.09	2333.82	2687.41	2673.81	3071.06
95th	1609.81	1676.60	1617.71	1674.45	1697.96	1831.02	1961.39
75th	1077.41	1138.66	1218.76	1250.96	1378.10	1501.64	1620.63
50th (median)	914.69	1044.62	1138.38	1251.28	1301.40	1397.56	1552.14
25th	922.32	937.83	1015.08	1098.29	1098.24	1235.06	1397.16
5th	75.39	750.00	802.66	870.82	939.78	1025.69	1199.60
1st	728.96	746.16	797.53	877.90	891.46	1025.69	1121.07
Range	1294.18	1504.93	1557.56	1657.92	1793.96	1648.12	1902.00
Restricted range	672.49	726.67	815.04	794.63	757.19	807.33	765.90
Restricted range ratio	0.912	0.969	1.015	0.903	0.800	0.787	0.639
Mean deviation from median	119.16	134.11	143.21	176.17	161.22	177.63	177.47
Relative deviation from median	0.129	0.129	0.126	0.141	0.124	0.127	0.114
Mean	1006.61	1057.81	1147.58	1239.57	1274.02	1388.68	1519.92
Standard deviation	173.197	192.074	205.934	233.429	242.204	246.422	244.389
Coefficient of variation	0.174	0.182	0.179	0.190	0.167	0.173	0.161
Mean deviation from mean	124.02	135.86	143.86	177.22	162.86	178.28	179.49
Relative deviation from mean	0.123	0.128	0.125	0.144	0.128	0.128	0.118
Gini coefficient	0.090	0.095	0.095	0.103	0.091	0.094	0.085
Regression results							
Adj. wealth: Linear F	280.275	272.171	269.104	220.494	140.732	139.900	150.632
Elasticity	0.321	0.338	0.338	0.346	0.257	0.247	0.243
Quadratic F	166.934	162.121	159.410	117.453	92.940	95.484	90.987
Elasticity	0.380	0.399	0.396	0.388	0.329	0.331	0.307
Income: Linear F	106.683	112.069	103.254	79.911	65.443	38.688	29.231
Elasticity	0.293	0.298	0.282	0.272	0.219	0.190	0.156
Quadratic F	54.355	56.719	52.315	39.681	32.407	19.193	14.943
Elasticity	0.268	0.274	0.255	0.262	0.219	0.184	0.134
Adj. tax rate: Linear F	5.612	8.018	8.403	18.852	4.521	2.690	0.031
Elasticity	-0.222	-0.278	-0.270	0.483	0.245	0.189	-0.019
Quadratic F	3.029	4.774	4.985	9.907	6.199	9.397	9.939
Elasticity	-0.222	-0.284	-0.275	0.494	0.341	0.232	0.107
Mean for adj. wealth decile							
1st	763.64	777.79	835.73	912.44	976.42	1068.80	1207.84
2nd	885.76	925.67	1029.95	993.49	1118.62	1120.34	1251.84
3rd	922.82	969.34	1017.63	1192.06	1222.73	1397.78	1490.94
4th	956.98	998.37	1110.85	1150.84	1191.19	1330.86	1532.55
5th	1036.00	1040.11	1177.17	1290.62	1272.00	1433.44	1535.46
6th	964.71	1085.04	1154.73	1324.36	1305.04	1334.08	1516.20
7th	1032.46	1116.34	1203.52	1225.43	1301.80	1457.09	1612.62
8th	1031.78	1078.88	1117.47	1196.73	1335.12	1517.41	1513.47
9th	1089.15	1135.93	1258.22	1321.81	1346.49	1408.64	1568.59
10th	1382.84	1450.62	1570.48	1687.96	1670.76	1818.37	1969.65
Mean for income decile							
1st	845.39	832.15	893.47	986.33	1024.54	1158.64	1334.04
2nd	869.92	944.32	1021.52	1063.19	1129.90	1245.56	1364.28
3rd	939.07	1031.45	1160.10	1243.71	1314.35	1440.49	1547.63
4th	931.34	948.75	1014.72	1045.15	1153.43	1228.80	1509.13
5th	1005.39	1054.16	1150.99	1280.36	1188.15	1342.83	1402.38
6th	1032.85	1065.54	1135.08	1176.47	1339.53	1436.56	1555.90
7th	1006.72	1099.39	1217.76	1314.87	1372.56	1491.39	1549.46
8th	1033.79	1079.60	1154.03	1281.43	1298.23	1420.76	1560.92
9th	1058.75	1118.47	1204.57	1318.23	1356.14	1442.08	1556.38
10th	1322.60	1385.96	1488.65	1559.08	1534.67	1649.60	1783.55
Mean for district type							
Below median ADM	1030.52	1084.89	1200.19	1292.28	1289.33	1433.13	1568.90
Above median ADM	982.71	1030.73	1094.96	1166.87	1258.71	1344.23	1470.93
Below median % urban	983.11	1040.49	1136.10	1224.75	1257.80	1399.67	1531.95
Above median % urban	1026.05	1071.47	1152.08	1229.01	1284.50	1371.68	1500.78
Below median % white	1039.55	1088.98	1174.68	1266.95	1299.34	1422.64	1559.73
Above median % white	969.61	1022.98	1113.50	1186.81	1242.96	1348.70	1473.00
Below median % poverty	1053.15	1102.83	1191.08	1267.20	1312.68	1409.25	1533.39
Above median % poverty	956.01	1009.13	1097.10	1186.56	1229.62	1362.09	1499.34
Correlation with							
ADM	-0.339	-0.361	-0.374	-0.440	-0.331	-0.401	-0.381
Adj. wealth	0.841	0.838	0.837	0.814	0.746	0.745	0.756
Income	0.710	0.719	0.704	0.659	0.621	0.521	0.468
% Urban	0.029	0.005	-0.018	-0.054	-0.047	-0.078	-0.150
% White	-0.088	-0.059	-0.029	-0.079	-0.064	-0.107	-0.120
% Poverty	-0.270	-0.260	-0.235	-0.144	-0.163	-0.003	-0.004
Adj. tax rate	-0.215	-0.255	-0.261	0.380	0.197	0.153	-0.017
Gini by adj. wealth distribution	0.150	0.147	0.149	0.155	0.173	0.173	0.169
Gini by income distribution	0.172	0.173	0.180	0.186	0.200	0.212	0.222



Table A.10  
DISTRIBUTION OF LOCAL + STATE REVENUE PER PUPIL  
IN CALIFORNIA HIGH SCHOOL DISTRICTS

Measure	1970-71	1971-72	1972-73	Unweighted 1973-74	1974-75	1975-76	1976-77
Percentile							
100th	1997.16	2305.39	2374.91	2619.98	2737.18	2729.12	3149.61
95th	1813.64	1879.21	1878.83	2176.05	2063.09	2489.06	2674.31
75th	1376.66	1263.43	1436.29	1524.87	1542.80	1751.19	1877.50
50th (median)	1029.73	1105.92	1243.47	1337.79	1404.75	1537.51	1686.51
25th	958.11	1004.62	1103.14	1229.72	1273.87	1412.18	1558.91
5th	834.66	884.63	981.13	1061.75	1060.77	1376.17	1285.86
1st	724.47	705.70	809.93	892.97	958.06	1058.13	1213.48
Range	1272.69	1599.69	1564.98	1727.05	1779.12	1670.99	1936.13
Restricted range	978.98	994.56	897.70	1174.29	1002.33	1312.89	1388.45
Restricted range ratio	1.173	1.124	0.915	1.172	0.945	1.316	1.080
Mean deviation from median	173.59	194.03	210.07	226.28	214.50	243.19	250.62
Relative deviation from median	0.169	0.175	0.169	0.169	0.153	0.156	0.149
Mean	1111.95	1175.99	1294.44	1421.90	1461.76	1621.22	1766.85
Standard deviation	263.218	291.014	288.293	318.521	310.049	346.613	366.369
Coefficient of variation	0.237	0.247	0.223	0.224	0.212	0.214	0.207
Mean deviation from mean	187.92	204.95	217.41	237.85	221.23	252.37	258.96
Relative deviation from mean	0.169	0.174	0.166	0.167	0.151	0.156	0.147
Gini coefficient	0.118	0.124	0.117	0.118	0.110	0.111	0.106
Regression results							
Adj. wealth: Linear F	337.922	298.881	230.425	225.980	111.644	113.827	153.441
Elasticity	0.310	0.328	0.307	0.343	0.259	0.236	0.242
Quadratic F	217.018	170.933	141.043	122.363	80.983	86.880	101.834
Elasticity	0.424	0.423	0.412	0.409	0.382	0.375	0.350
Income: Linear F	14.772	15.788	11.996	8.199	4.887	0.999	1.259
Elasticity	0.144	0.141	0.125	0.107	0.073	0.038	0.039
Quadratic F	7.317	7.890	6.079	4.113	2.443	0.510	0.637
Elasticity	0.146	0.130	0.107	0.095	0.066	0.031	0.033
Adj. tax rate: Linear F	17.990	13.255	11.379	0.037	1.031	1.652	9.531
Elasticity	-0.412	-0.354	-0.298	-0.022	-0.109	-0.145	-0.307
Quadratic F	15.848	10.047	7.339	2.698	6.509	9.009	13.736
Elasticity	-0.419	-0.360	-0.297	-0.020	0.043	0.060	-0.167
Mean for adj. wealth decile							
1st	855.11	888.95	980.10	1080.50	1139.46	1286.47	1388.88
2nd	937.05	958.91	1090.22	1199.56	1280.35	1383.10	1597.52
3rd	1005.50	1071.14	1163.81	1324.04	1325.88	1506.34	1633.36
4th	973.38	1069.58	1195.05	1330.63	1326.62	1463.04	1628.78
5th	1042.78	1076.64	1195.60	1264.90	1397.63	1616.03	1687.54
6th	1051.80	1146.03	1230.11	1315.98	1409.07	1504.44	1624.22
7th	1065.36	1172.66	1294.25	1407.63	1423.09	1571.52	1671.29
8th	1181.35	1217.69	1434.98	1550.60	1605.11	1725.70	1892.34
9th	1333.23	1355.53	1509.35	1706.38	1725.10	1927.81	2039.79
10th	1673.90	1802.74	1850.89	2038.75	1985.32	2227.72	2504.82
Mean for income decile							
1st	922.20	978.97	1159.56	1278.16	1341.73	1459.45	1650.00
2nd	1049.04	1111.09	1195.35	1236.47	1306.07	1485.65	1638.68
3rd	954.29	1018.38	1147.41	1297.92	1333.29	1619.80	1719.92
4th	1061.52	1119.31	1235.62	1495.41	1481.21	1694.87	1624.29
5th	1006.54	1104.00	1343.72	1451.37	1515.34	1595.74	1755.22
6th	1230.60	1196.67	1235.73	1340.24	1356.42	1554.96	1778.81
7th	1094.66	1126.69	1239.03	1295.04	1380.91	1591.85	1813.56
8th	1090.39	1204.63	1264.25	1419.17	1462.28	1541.00	1634.91
9th	1072.73	1132.17	1307.35	1465.60	1474.26	1618.99	1751.32
10th	1231.16	1278.33	1394.96	1485.16	1465.47	1578.53	1723.40
Mean for district type							
Below median ADM	1195.40	1266.04	1398.74	1571.70	1606.92	1790.48	1937.70
Above median ADM	1028.49	1085.94	1190.13	1272.09	1316.60	1451.95	1596.00
Below median % urban	1088.06	1145.23	1288.88	1438.56	1468.36	1631.00	1791.47
Above median % urban	1054.56	1108.82	1215.72	1314.35	1355.03	1517.17	1626.55
Below median % white	1076.43	1123.69	1254.09	1381.15	1409.19	1579.82	1729.01
Above median % white	1066.20	1130.35	1250.51	1371.76	1414.20	1568.35	1689.01
Below median % poverty	1092.95	1148.48	1259.75	1374.55	1411.23	1541.66	1672.32
Above median % poverty	1049.68	1105.57	1244.85	1378.36	1412.17	1606.50	1745.70
Correlation with							
ADM	-0.240	-0.245	-0.290	-0.359	-0.346	-0.383	-0.384
Adj. wealth	0.863	0.850	0.817	0.818	0.707	0.710	0.759
Income	0.351	0.362	0.320	0.270	0.212	0.098	0.109
% Urban	-0.130	-0.162	-0.247	-0.292	-0.301	-0.275	-0.321
% White	-0.000	0.047	0.028	0.009	0.014	-0.008	-0.067
% Poverty	-0.090	-0.102	-0.034	0.026	0.053	0.203	0.125
Adj. tax rate	-0.366	-0.321	-0.300	-0.018	-0.096	-0.121	-0.279
Gini by adj. wealth distribution	0.198	0.197	0.195	0.181	0.201	0.201	0.206
Gini by income distribution	0.221	0.222	0.226	0.232	0.238	0.252	0.251

TABLE A.10  
DISTRIBUTION OF LOCAL + STATE REVENUE PER PUPIL  
IN CALIFORNIA HIGH SCHOOL DISTRICTS (continued)

Measure	1970-71	1971-72	1972-73	Weighted 1970-74	1974-75	1975-76	1976-77
Percentile							
100th	1997.16	2305.39	2574.91	2619.98	2747.18	2729.12	3149.61
95th	1447.53	1509.12	1666.50	1745.27	1726.11	1874.12	1946.43
75th	1106.80	1160.10	1266.05	1375.97	1433.66	1557.33	1673.17
50th (median)	998.01	1052.70	1171.50	1269.53	1326.94	1463.74	1595.44
25th	937.42	969.55	1055.60	1133.54	1146.50	1296.74	1449.56
5th	736.29	748.13	816.32	940.49	958.06	1058.13	1246.33
1st	724.47	705.70	809.93	892.92	958.06	1058.13	1215.48
Range	1272.69	1599.69	1564.98	1727.05	1779.12	1670.99	1936.13
Restricted range	711.27	760.99	844.17	792.77	768.05	816.19	750.12
Restricted range ratio	0.966	1.017	1.034	0.843	0.802	0.771	0.602
Mean deviation from median	122.69	135.95	148.09	173.63	162.73	180.96	178.43
Relative deviation from median	0.123	0.129	0.126	0.137	0.123	0.124	0.112
Mean	1027.68	1080.18	1181.96	1267.17	1317.36	1443.02	1579.49
Standard deviation	180.566	195.899	210.778	233.883	212.710	248.205	242.930
Coefficient of variation	0.176	0.181	0.178	0.185	0.161	0.172	0.154
Mean deviation from mean	128.55	139.54	148.25	173.78	163.09	182.61	179.22
Relative deviation from mean	0.125	0.129	0.125	0.137	0.124	0.127	0.113
Gini coefficient	0.091	0.095	0.094	0.100	0.088	0.093	0.082
Regression results							
Adj. wealth: Linear F	254.510	258.915	249.459	213.877	136.927	122.601	134.357
Elasticity	0.320	0.335	0.332	0.334	0.248	0.238	0.226
Quadratic F	156.431	159.302	150.275	115.958	92.771	83.789	80.797
Elasticity	0.385	0.402	0.394	0.380	0.321	0.323	0.288
Income: Linear F	96.979	101.360	84.043	73.853	53.734	29.071	23.710
Elasticity	0.289	0.291	0.266	0.258	0.199	0.170	0.137
Quadratic F	49.048	51.116	42.652	36.687	26.611	14.422	12.312
Elasticity	0.267	0.268	0.238	0.248	0.198	0.164	0.113
Adj. tax rate: Linear F	3.848	5.523	6.612	23.186	7.068	5.415	0.070
Elasticity	-0.187	-0.233	-0.240	0.512	0.294	0.263	0.028
Quadratic F	1.988	3.137	3.742	11.557	6.629	9.649	8.208
Elasticity	-0.187	-0.237	-0.244	0.516	0.375	0.302	0.139
Mean for adj. wealth decile							
1st	763.02	774.04	847.20	927.87	1000.26	1105.26	1265.14
2nd	916.41	961.18	1072.92	1036.23	1163.38	1173.57	1298.27
3rd	941.64	992.01	1052.91	1230.85	1268.97	1449.05	1561.44
4th	976.71	1019.54	1142.42	1212.67	1238.27	1382.43	1602.23
5th	1054.05	1058.50	1217.11	1329.86	1321.26	1489.18	1586.25
6th	995.41	1115.63	1188.95	1355.29	1358.50	1398.49	1585.30
7th	1056.03	1141.70	1248.67	1273.57	1334.13	1505.56	1703.25
8th	1041.72	1098.82	1147.30	1219.47	1394.31	1597.39	1560.86
9th	1122.69	1167.48	1298.15	1367.53	1391.36	1466.31	1627.72
10th	1409.10	1472.95	1604.01	1718.37	1702.62	1862.90	2004.41
Mean for income decile							
1st	859.23	846.10	921.42	1019.11	1059.46	1206.76	1398.86
2nd	881.35	969.74	1065.07	1113.63	1188.14	1316.64	1437.30
3rd	973.74	1052.15	1202.93	1287.90	1363.37	1501.84	1606.78
4th	955.31	980.79	1063.06	1091.40	1200.63	1283.05	1593.77
5th	1038.51	1086.13	1196.03	1315.85	1248.95	1413.72	1461.64
6th	1055.54	1088.42	1167.00	1210.62	1388.50	1507.39	1631.33
7th	1018.25	1110.79	1243.16	1345.35	1414.22	1543.53	1601.57
8th	1053.10	1097.69	1178.49	1308.91	1333.68	1458.81	1604.45
9th	1082.05	1150.53	1240.51	1363.97	1383.76	1485.87	1589.76
10th	1346.44	1404.26	1513.43	1587.44	1563.09	1682.19	1832.85
Mean for district type							
Below median ADM	1053.18	1108.97	1237.02	1334.10	1330.52	1488.24	1625.93
Above median ADM	1002.18	1051.40	1126.90	1200.24	1304.09	1397.79	1533.04
Below median % urban	1006.19	1064.64	1178.16	1264.75	1308.11	1464.30	1603.15
Above median % urban	1046.52	1092.68	1180.06	1264.09	1320.65	1415.66	1548.51
Below median % white	1054.52	1102.86	1205.38	1299.68	1340.01	1478.72	1621.63
Above median % white	998.18	1054.46	1152.85	1229.16	1288.75	1401.24	1530.03
Below median % poverty	1078.32	1129.23	1224.61	1305.95	1352.96	1454.39	1582.26
Above median % poverty	974.39	1028.09	1133.61	1222.89	1275.79	1425.57	1569.40
Correlation with							
ADM	-0.331	-0.356	-0.380	-0.452	-0.332	-0.403	-0.393
Adj. wealth	0.829	0.832	0.827	0.810	0.742	0.723	0.737
Income	0.693	0.701	0.667	0.644	0.584	0.467	0.431
% Urban	0.012	-0.010	-0.054	-0.080	-0.079	-0.110	-0.175
% White	-0.052	-0.017	-0.017	-0.073	-0.075	-0.129	-0.153
% Poverty	-0.262	-0.250	-0.189	-0.114	-0.109	0.065	0.068
Adj. tax rate	-0.179	-0.214	-0.233	0.414	0.244	0.215	0.025
Gini by adj. wealth distribution	0.149	0.147	0.150	0.157	0.174	0.175	0.173
Gini by income distribution	0.173	0.175	0.184	0.189	0.205	0.217	0.226

Table A.11  
DISTRIBUTION OF LOCAL + STATE + PL874 REVENUE PER PUPIL  
IN CALIFORNIA HIGH SCHOOL DISTRICTS

Measure	1970-71	1971-72	1972-73	Unweighted 1973-74	1974-75	1975-76	1976-77
Percentile							
100th	2109.44	2338.69	2374.91	2619.98	2737.18	2759.62	3149.61
95th	1823.76	1881.91	1893.33	2217.40	2165.55	2511.36	2768.50
75th	1201.95	1288.73	1444.25	1553.06	1581.11	1799.01	1894.67
50th (median)	1047.06	1115.64	1249.58	1359.88	1426.82	1557.54	1722.11
25th	983.85	1025.20	1115.30	1249.72	1316.52	1429.82	1567.62
5th	850.62	905.33	994.40	1016.17	1082.05	1184.02	1296.97
1st	757.33	781.46	837.85	928.07	975.23	1088.38	1213.48
Range	1352.11	1557.23	1537.06	1691.91	1761.95	1671.24	1936.13
Restricted range	973.13	976.59	898.93	1201.22	1083.50	1327.33	1471.53
Restricted range ratio	1.144	1.079	0.904	1.182	1.001	1.121	1.135
Mean deviation from median	174.72	195.70	209.56	229.42	219.95	245.39	263.73
Relative deviation from median	0.167	0.175	0.168	0.169	0.154	0.158	0.153
Mean	1131.85	1201.23	1313.56	1444.69	1487.33	1643.30	1795.97
Standard deviation	266.986	294.762	289.088	320.661	317.798	348.131	382.491
Coefficient of variation	0.236	0.245	0.220	0.222	0.214	0.212	0.213
Mean deviation from mean	190.21	207.73	218.02	239.57	227.53	255.52	271.40
Relative deviation from mean	0.168	0.173	0.166	0.166	0.153	0.155	0.151
Gini coefficient	0.117	0.122	0.116	0.117	0.111	0.111	0.109
Regression results							
Adj. wealth: Linear F	377.896	311.037	250.407	230.334	104.873	116.149	147.037
Elasticity	0.313	0.327	0.307	0.341	0.257	0.235	0.247
Quadratic F	227.734	164.146	144.764	118.837	72.923	90.468	98.011
Elasticity	0.409	0.390	0.395	0.385	0.374	0.376	0.358
Income: Linear F	16.025	16.895	13.563	8.948	5.714	1.570	1.890
Elasticity	0.149	0.143	0.129	0.110	0.080	0.046	0.050
Quadratic F	7.951	8.467	6.854	4.445	2.833	0.778	0.972
Elasticity	0.144	0.129	0.112	0.104	0.083	0.047	0.059
Adj. tax rate: Linear F	22.896	20.213	16.757	1.176	3.329	4.445	15.938
Elasticity	-0.455	-0.422	-0.350	-0.119	-0.195	-0.233	-0.398
Quadratic F	20.403	15.604	11.316	6.358	8.252	13.084	19.893
Elasticity	-0.462	-0.429	-0.348	-0.118	-0.039	-0.009	-0.242
Mean for adj. wealth decile							
1st	898.08	964.09	1033.12	1149.80	1208.39	1346.21	1462.89
2nd	953.80	978.23	1095.50	1206.00	1294.41	1388.95	1609.14
3rd	1011.65	1092.84	1187.30	1347.71	1331.94	1512.90	1644.12
4th	986.82	1080.32	1205.55	1344.97	1353.23	1482.24	1642.57
5th	1060.02	1085.13	1201.20	1274.57	1413.01	1645.00	1723.95
6th	1068.39	1161.53	1239.19	1323.75	1426.35	1507.70	1628.36
7th	1075.12	1179.02	1299.72	1414.88	1427.94	1574.98	1680.22
8th	1198.53	1237.49	1441.73	1564.51	1616.08	1739.01	1908.57
9th	1342.09	1377.66	1556.55	1752.95	1775.73	1974.51	2092.81
10th	1723.98	1855.97	1875.70	2067.75	2026.17	2261.50	2567.02
Mean for income decile							
1st	935.47	996.89	1176.62	1297.37	1360.73	1481.97	1670.18
2nd	1062.14	1125.85	1208.89	1247.55	1325.18	1496.39	1651.43
3rd	970.10	1033.80	1150.99	1312.78	1347.68	1632.84	1734.12
4th	1101.84	1194.45	1246.76	1510.47	1499.22	1710.65	1629.98
5th	1013.44	1115.16	1395.71	1460.26	1529.83	1603.93	1765.99
6th	1259.78	1224.98	1256.81	1419.51	1360.82	1559.63	1783.31
7th	1112.78	1144.65	1251.13	1310.61	1414.33	1612.22	1882.34
8th	1104.02	1223.19	1277.90	1435.38	1536.36	1607.08	1650.33
9th	1080.91	1142.14	1312.87	1473.84	1483.04	1625.23	1829.59
10th	1264.13	1315.16	1433.45	1525.78	1515.07	1625.91	1776.85
Mean for district type							
Below median ADM	1219.65	1301.24	1424.80	1604.48	1644.05	1823.73	1983.57
Above median ADM	1044.04	1101.21	1202.32	1284.89	1330.60	1462.87	1608.36
Below median % urban	1108.98	1175.31	1310.90	1463.23	1496.75	1654.27	1825.45
Above median % urban	1071.94	1127.94	1231.32	1335.49	1377.71	1536.90	1649.38
Below median % white	1109.05	1165.64	1287.16	1421.52	1453.46	1618.20	1780.76
Above median % white	1071.88	1137.61	1255.07	1377.20	1420.99	1572.97	1694.06
Below median % poverty	1115.47	1179.38	1281.15	1401.49	1440.51	1565.92	1704.55
Above median % poverty	1065.45	1123.87	1261.08	1397.22	1433.94	1625.25	1770.27
Correlation with							
ADM	-0.247	-0.261	-0.302	-0.372	-0.360	-0.401	-0.396
Adj. wealth	0.875	0.854	0.828	0.820	0.695	0.714	0.752
Income	0.364	0.372	0.338	0.281	0.228	0.122	0.134
% Urban	-0.122	-0.155	-0.243	-0.289	-0.292	-0.278	-0.317
% White	-0.050	-0.023	-0.023	-0.049	-0.053	-0.058	-0.131
% Poverty	-0.116	-0.138	-0.056	0.004	0.031	0.186	0.097
Adj. tax rate	-0.406	-0.387	-0.357	-0.102	-0.170	-0.195	-0.352
Gini by adj. wealth distribution	0.198	0.199	0.195	0.182	0.201	0.201	0.205
Gini by income distribution	0.220	0.220	0.224	0.230	0.236	0.249	0.249

Table A-1  
DISTRIBUTION OF LOCAL + STATE + FEDERAL REVENUE PER PUPIL  
IN CALIFORNIA REG. SCHOOL DISTRICTS (continued)

Measure	1970-71	1971-72	1972-73	Weighted 1973-74	1974-75	1975-76	1976-77
Percentile							
100th	2109.44	2168.69	2374.91	2639.98	2727.18	2759.62	3149.61
95th	1481.53	1509.12	1663.50	1752.72	1743.99	1874.32	2019.07
75th	1113.15	1173.67	1275.00	1398.18	1446.90	1571.21	1680.98
50th (median)	1001.45	1074.74	1186.03	1287.90	1353.66	1464.87	1609.67
25th	945.15	979.17	1090.69	1138.75	1158.70	1311.95	1462.32
5th	774.53	781.59	847.79	946.72	996.67	1089.16	1260.94
1st	757.33	781.46	837.85	926.07	975.23	1086.38	1213.48
Range	1352.11	1557.23	1537.06	1691.91	1761.95	1671.24	1936.13
Restricted range	679.00	727.53	812.71	806.00	747.32	785.16	758.13
Restricted range ratio	0.877	0.931	0.959	0.891	0.756	0.721	0.601
Mean deviation from median	120.82	135.09	148.27	173.57	162.85	180.45	180.32
Relative deviation from median	0.120	0.126	0.125	0.135	0.121	0.123	0.112
Mean	1043.79	1098.01	1195.98	1283.12	1333.03	1455.71	1594.12
Standard deviation	178.484	193.627	209.093	233.022	213.198	247.082	247.367
Coefficient of variation	0.171	0.176	0.175	0.182	0.160	0.170	0.155
Mean deviation from mean	137.26	137.07	148.37	173.66	163.67	181.22	181.11
Relative deviation from mean	0.122	0.125	0.124	0.135	0.123	0.124	0.114
Gini coefficient	0.089	0.092	0.092	0.098	0.087	0.092	0.083
Regression results							
Adj. wealth: Linear F	295.217	289.599	276.729	226.785	137.797	127.468	135.463
Elasticity	0.318	0.331	0.330	0.332	0.246	0.237	0.229
Quadratic F	175.292	170.571	162.591	119.867	91.769	87.760	81.343
Elasticity	0.374	0.388	0.386	0.370	0.316	0.321	0.291
Income: Linear F	91.406	94.253	80.101	68.474	49.743	28.629	22.025
Elasticity	0.277	0.277	0.257	0.249	0.192	0.166	0.134
Quadratic F	46.759	47.951	40.957	34.098	24.643	14.214	11.376
Elasticity	0.250	0.250	0.226	0.235	0.189	0.160	0.112
Adj. tax rate: Linear F	6.330	8.742	9.083	17.215	4.184	3.574	0.023
Elasticity	-0.231	-0.281	-0.273	0.444	0.227	0.213	-0.016
Quadratic F	3.452	5.346	5.612	9.147	6.219	10.620	10.386
Elasticity	-0.231	-0.288	-0.279	0.456	0.321	0.256	0.109
Mean for adj. wealth decile							
1st	796.15	813.60	877.54	965.90	1039.28	1135.59	1286.83
2nd	928.13	974.23	1082.79	1044.65	1172.70	1178.83	1309.89
3rd	955.17	1004.84	1062.55	1238.60	1277.56	1456.76	1576.41
4th	980.35	1032.70	1145.89	1220.14	1248.31	1390.31	1605.53
5th	1068.14	1076.48	1236.66	1347.18	1327.95	1494.79	1600.70
6th	1007.71	1124.04	1197.93	1373.26	1368.90	1412.29	1592.01
7th	1066.03	1155.00	1256.39	1278.09	1359.96	1530.83	1727.62
8th	1070.86	1122.83	1167.40	1244.10	1400.48	1600.69	1573.10
9th	1137.55	1184.46	1307.79	1378.44	1409.57	1473.35	1637.65
10th	1427.84	1491.89	1624.88	1740.88	1725.58	1883.71	2031.41
Mean for income decile							
1st	885.82	874.87	946.25	1049.08	1092.64	1230.43	1421.16
2nd	904.84	988.52	1079.67	1128.86	1206.70	1332.33	1452.60
3rd	987.35	1085.38	1225.63	1306.10	1383.53	1514.81	1618.73
4th	971.24	994.09	1069.71	1098.99	1207.60	1291.12	1603.39
5th	1049.14	1099.87	1211.81	1344.18	1254.19	1418.81	1471.91
6th	1072.85	1106.56	1180.29	1230.99	1414.82	1521.38	1651.94
7th	1034.43	1130.41	1257.93	1355.89	1421.04	1556.77	1608.01
8th	1062.02	1109.22	1185.54	1317.31	1341.32	1464.13	1621.34
9th	1090.56	1154.76	1244.70	1368.11	1400.56	1499.03	1618.78
10th	1359.82	1420.51	1528.69	1604.14	1578.44	1697.53	1836.19
Mean for district type							
Below median ADM	1070.40	1128.13	1251.99	1350.16	1351.21	1503.49	1644.84
Above median ADM	1017.19	1067.88	1139.98	1216.09	1314.85	1407.93	1543.39
Below median % urban	1025.87	1088.02	1196.80	1286.11	1328.92	1481.16	1623.93
Above median % urban	1057.75	1104.82	1189.25	1274.62	1331.25	1424.11	1556.88
Below median % white	1078.72	1129.82	1227.36	1325.45	1364.73	1498.48	1645.26
Above median % white	1004.89	1063.02	1158.68	1235.28	1295.44	1406.78	1535.55
Below median % poverty	1087.33	1139.08	1231.55	1313.51	1360.20	1460.73	1588.94
Above median % poverty	996.29	1053.77	1154.49	1247.22	1299.97	1444.53	1591.87
Correlation with							
ADM	-0.348	-0.373	-0.392	-0.460	-0.349	-0.418	-0.409
Adj. wealth	0.847	0.846	0.840	0.818	0.743	0.730	0.738
Income	0.682	0.688	0.658	0.630	0.569	0.465	0.418
% Urban	-0.003	-0.032	-0.069	-0.096	-0.103	-0.126	-0.198
% White	-0.089	-0.055	-0.048	-0.109	-0.109	-0.151	-0.176
% Poverty	-0.245	-0.233	-0.170	-0.090	-0.084	0.080	0.085
Adj. tax rate	-0.227	-0.266	-0.271	0.365	0.190	0.176	-0.014
Gini by adj. wealth distribution	0.150	0.148	0.150	0.157	0.175	0.175	0.172
Gini by income distribution	0.176	0.178	0.186	0.191	0.207	0.218	0.227

TABLE A.12  
 DISTRICTS IN AVERAGE INCOME  
 AND POVERTY RATES BY DISTRICT TYPE

Measure	ADM	% Urban	% White	% Poverty	ADM	% Urban	% White
Income							
1st	106.34	201.34	101.87	200.34	111.34	212.34	107.34
2nd	158.4	258.4	151.82	258.42	161.34	261.34	154.34
3rd	129.34	229.34	121.82	229.34	131.34	231.34	124.34
4th	110.34	210.34	106.82	210.34	111.34	211.34	107.34
5th	121.34	221.34	116.82	221.34	121.34	221.34	116.34
6th	131.34	231.34	126.82	231.34	131.34	231.34	126.34
7th	141.34	241.34	136.82	241.34	141.34	241.34	136.34
8th	151.34	251.34	146.82	251.34	151.34	251.34	146.34
9th	161.34	261.34	156.82	261.34	161.34	261.34	156.34
10th	171.34	271.34	166.82	271.34	171.34	271.34	166.34
Range	106.34	184.34	151.87	189.34	111.34	189.34	154.34
Restricted range	98.34	174.34	146.82	180.34	103.34	179.34	149.34
Restricted range ratio	1.090	1.056	1.047	1.056	1.075	1.056	1.072
Mean deviation from median	184.34	201.34	21.34	202.34	202.34	212.34	207.34
Relative deviation from median	0.167	0.175	0.171	0.170	0.169	0.168	0.168
Mean	1189.42	1269.34	1286.34	1321.34	1286.34	1344.34	1316.34
Standard deviation	276.558	317.045	316.34	362.402	316.34	381.622	361.447
Coefficient of variation	0.233	0.251	0.224	0.238	0.234	0.219	0.227
Mean deviation from mean	201.97	221.63	235.57	266.36	261.04	281.02	311.00
Relative deviation from mean	0.170	0.177	0.179	0.175	0.165	0.165	0.165
Gini coefficient	0.117	0.123	0.117	0.124	0.119	0.116	0.118
Regression results							
Adj. wealth: Linear F	287.075	251.254	207.286	198.912	84.351	107.920	120.345
Elasticity	0.298	0.324	0.301	0.356	0.265	0.238	0.251
Quadratic F	173.646	134.717	123.535	106.837	62.475	84.142	81.324
Elasticity	0.401	0.395	0.404	0.425	0.406	0.385	0.380
Income: Linear F	7.729	8.758	4.900	2.839	0.747	0.060	0.110
Elasticity	0.109	0.106	0.085	0.070	0.035	0.010	0.013
Quadratic F	3.957	4.667	2.875	1.607	0.446	0.092	0.058
Elasticity	0.091	0.080	0.050	0.044	0.020	-0.004	0.010
Adj. tax rate: Linear F	26.108	22.435	20.318	1.078	4.138	6.379	18.287
Elasticity	-0.474	-0.451	-0.387	-0.123	-0.238	-0.286	-0.450
Quadratic F	20.369	15.819	12.704	9.151	5.900	12.622	18.504
Elasticity	-0.480	-0.457	-0.386	-0.120	-0.105	-0.071	-0.303
Mean for adj. wealth decile							
1st	942.30	1007.18	1085.81	1201.59	1259.26	1430.43	1543.86
2nd	1031.70	1051.95	1159.42	1259.54	1380.97	1461.22	1713.32
3rd	1053.23	1157.76	1273.18	1402.80	1417.08	1612.21	1746.14
4th	1023.83	1117.40	1252.90	1396.09	1401.06	1564.12	1728.95
5th	1109.03	1134.48	1240.47	1326.57	1466.76	1748.36	1839.77
6th	1119.37	1203.90	1312.59	1389.21	1523.75	1585.25	1739.47
7th	1132.37	1244.39	1369.20	1501.83	1511.41	1659.80	1778.40
8th	1309.63	1344.12	1527.63	1645.32	1757.85	1878.42	2038.90
9th	1397.65	1431.38	1680.55	1838.23	1883.67	2069.63	2211.41
10th	1775.08	1954.77	1959.72	2265.76	2202.78	2437.12	2825.61
Mean for income decile							
1st	1006.91	1116.26	1338.93	1481.11	1583.53	1663.09	1918.02
2nd	1182.53	1191.47	1279.04	1307.46	1395.18	1600.68	1776.58
3rd	1030.41	1094.86	1221.16	1387.98	1449.79	1769.16	1847.21
4th	1146.71	1254.82	1316.31	1578.38	1583.39	1805.78	1720.77
5th	1069.52	1177.02	1470.00	1535.71	1612.33	1703.08	1882.97
6th	1335.50	1295.27	1342.48	1491.67	1474.20	1659.77	1865.59
7th	1161.44	1196.59	1313.44	1380.44	1483.46	1681.26	2048.57
8th	1132.22	1256.11	1314.84	1471.64	1585.11	1669.55	1720.24
9th	1118.70	1169.83	1341.48	1514.51	1534.01	1692.86	1921.27
10th	1290.51	1349.37	1467.57	1563.15	1562.01	1679.85	1832.56
Mean for district type							
Below median ADM	1296.67	1382.92	1521.17	1712.73	1772.90	1955.03	2147.54
Above median ADM	1082.17	1146.55	1251.13	1332.65	1388.02	1534.28	1685.63
Below median % urban	1184.02	1246.84	1396.71	1559.11	1611.25	1771.63	1977.02
Above median % urban	1110.87	1173.48	1284.34	1383.30	1441.35	1613.39	1729.74
Below median % white	1178.16	1239.29	1376.93	1514.12	1566.39	1737.06	1927.33
Above median % white	1116.73	1181.03	1304.12	1428.29	1486.21	1647.96	1779.42
Below median % poverty	1163.19	1229.49	1345.25	1470.07	1526.96	1651.27	1814.54
Above median % poverty	1131.70	1190.83	1335.80	1472.34	1525.64	1733.75	1892.22
Correlation with							
ADM	-0.297	-0.294	-0.340	-0.393	-0.384	-0.434	-0.426
Adj. wealth	0.844	0.829	0.802	0.800	0.655	0.701	0.718
Income	0.262	0.277	0.211	0.163	0.084	0.024	0.033
% Urban	-0.217	-0.222	-0.320	-0.354	-0.355	-0.337	-0.398
% White	-0.089	-0.078	-0.070	-0.077	-0.080	-0.100	-0.181
% Poverty	-0.044	-0.070	0.006	0.040	0.077	0.246	0.144
Adj. tax rate	-0.429	-0.404	-0.387	-0.098	-0.189	-0.232	-0.373
Gini by adj. wealth distribution	0.204	0.201	0.196	0.179	0.200	0.200	0.205
Gini by income distribution	0.231	0.230	0.236	0.242	0.250	0.260	0.261

Table A.32  
DISTRIBUTION OF TOTAL REVENUE PER PUPIL  
IN CALIFORNIA HIGH SCHOOL DISTRICTS (continued)

Measure	1970-71	1971-72	1972-73	Weighted 1973-74	1974-75	1975-76	1976-77
Percentile							
100th	2161.36	2669.06	2462.50	2860.47	3187.66	2852.61	3351.08
95th	1476.36	1546.53	1696.87	1828.15	1787.50	2006.95	2103.63
75th	1145.21	1191.23	1320.49	1435.52	1518.28	1656.91	1791.09
50th (median)	1039.78	1133.12	1231.18	1347.92	1414.42	1519.36	1677.19
25th	999.40	1036.16	1148.53	1178.60	1206.27	1356.72	1491.09
5th	817.78	837.13	920.62	966.93	1067.81	1123.00	1286.42
1st	800.66	828.84	894.53	966.93	1003.94	1110.48	1247.85
Range	1360.70	1840.22	1567.97	1893.54	2183.73	1742.13	2103.23
Restricted range	658.59	709.40	776.25	861.22	719.69	877.94	817.21
Restricted range ratio	0.805	0.847	0.843	0.891	0.674	0.782	0.635
Mean deviation from median	126.19	137.95	148.07	175.67	169.67	188.40	192.45
Relative deviation from median	0.121	0.122	0.120	0.130	0.120	0.124	0.115
Mean	1079.78	1139.81	1243.70	1329.95	1388.84	1521.98	1669.65
Standard deviation	181.299	196.534	213.067	243.367	226.999	262.984	272.854
Coefficient of variation	0.168	0.172	0.171	0.183	0.163	0.173	0.163
Mean deviation from mean	129.75	138.01	148.20	176.85	170.45	188.42	192.80
Relative deviation from mean	0.120	0.121	0.119	0.133	0.123	0.124	0.115
Gini coefficient	0.087	0.090	0.090	0.097	0.087	0.093	0.086
Regression results							
Adj. wealth: Linear F	272.855	277.541	257.695	222.807	119.747	112.245	106.850
Elasticity	0.309	0.322	0.320	0.334	0.243	0.234	0.227
Quadratic F	160.541	160.060	147.872	116.083	77.605	73.005	61.913
Elasticity	0.364	0.375	0.372	0.368	0.312	0.313	0.287
Income: Linear F	66.377	70.182	55.355	48.950	29.731	16.923	12.256
Elasticity	0.248	0.247	0.225	0.224	0.163	0.136	0.110
Quadratic F	34.940	36.638	29.201	24.651	14.829	8.530	6.819
Elasticity	0.212	0.212	0.184	0.201	0.152	0.121	0.078
Adj. tax rate: Linear F	7.988	10.716	10.501	13.256	2.470	3.317	0.006
Elasticity	-0.253	-0.302	-0.286	0.399	0.179	0.209	-0.008
Quadratic F	4.267	6.435	6.490	7.535	4.765	11.937	10.933
Elasticity	-0.253	-0.309	-0.292	0.414	0.270	0.256	0.126
Mean for adj. wealth decile							
1st	831.47	857.53	930.21	1016.30	1106.44	1206.92	1365.02
2nd	946.13	999.28	1115.41	1066.80	1200.75	1212.32	1362.05
3rd	1012.75	1054.20	1112.90	1281.50	1341.09	1535.70	1664.37
4th	1006.31	1088.03	1192.33	1273.41	1303.47	1454.63	1669.65
5th	1120.64	1133.24	1315.85	1402.96	1389.74	1554.25	1663.47
6th	1043.51	1159.79	1244.12	1415.52	1411.33	1484.80	1667.90
7th	1093.36	1182.13	1284.01	1321.52	1403.19	1593.38	1834.64
8th	1098.73	1159.72	1210.80	1285.26	1462.84	1683.00	1641.48
9th	1177.46	1232.90	1359.00	1428.08	1477.27	1539.57	1710.26
10th	1467.48	1531.29	1672.34	1808.15	1792.31	1955.28	2117.70
Mean for income decile							
1st	945.80	936.86	1023.31	1125.38	1191.77	1334.29	1538.25
2nd	954.36	1049.10	1140.75	1183.87	1273.56	1420.04	1546.86
3rd	1018.47	1132.07	1285.51	1351.01	1446.52	1589.93	1690.45
4th	1004.86	1029.34	1112.69	1135.54	1241.09	1339.13	1693.31
5th	1106.17	1159.73	1280.74	1409.96	1321.49	1497.78	1531.18
6th	1109.64	1148.40	1226.77	1284.05	1482.03	1597.44	1739.42
7th	1056.19	1158.81	1291.80	1387.56	1464.65	1613.73	1670.15
8th	1085.28	1134.66	1212.10	1349.26	1372.27	1505.34	1675.30
9th	1115.50	1184.60	1277.82	1400.99	1446.65	1543.86	1673.74
10th	1385.72	1452.54	1561.00	1640.05	1616.11	1744.83	1897.12
Mean for district type							
Below median ADM	1113.19	1175.91	1305.27	1404.97	1418.10	1579.24	1730.82
Above median ADM	1046.38	1103.71	1182.12	1254.93	1359.59	1464.73	1608.48
Below median % urban	1073.60	1141.59	1258.39	1343.94	1399.98	1568.23	1719.89
Above median % urban	1082.80	1135.63	1224.11	1309.60	1371.25	1469.04	1611.27
Below median % white	1123.43	1181.17	1285.81	1383.99	1432.34	1579.51	1739.17
Above median % white	1032.97	1096.05	1196.69	1269.54	1338.89	1457.77	1591.98
Below median % poverty	1110.37	1166.94	1263.34	1343.65	1393.85	1503.15	1638.83
Above median % poverty	1046.03	1110.29	1219.15	1309.89	1377.38	1534.12	1692.32
Correlation with							
ADM	-0.392	-0.407	-0.420	-0.485	-0.386	-0.449	-0.429
Adj. wealth	0.838	0.841	0.832	0.816	0.719	0.707	0.697
Income	0.622	0.633	0.588	0.566	0.472	0.374	0.325
% Urban	-0.076	-0.094	-0.137	-0.153	-0.182	-0.194	-0.267
% White	-0.139	-0.107	-0.103	-0.154	-0.158	-0.205	-0.239
% Poverty	-0.148	-0.140	-0.074	-0.010	0.027	0.184	0.187
Adj. tax rate	-0.254	-0.292	-0.289	0.325	0.147	0.170	-0.007
Gini by adj. wealth distribution	0.152	0.150	0.153	0.157	0.176	0.177	0.176
Gini by income distribution	0.183	0.186	0.195	0.198	0.215	0.226	0.235

Table A.15  
DISTRIBUTION OF INSTRUCTIONAL EXPENDITURES PER PUPIL  
IN CALIFORNIA HIGH SCHOOL DISTRICTS

Measure	1970-71	1971-72	1972-73	Unweighted 1973-74	1974-75	1975-76	1976-77
Percentile							
100th	1110.04	1223.87	1263.81	1350.78	1557.70	1408.28	1608.74
95th	1019.09	1100.89	1150.21	1221.27	1251.12	1219.89	1331.25
75th	814.01	866.86	892.03	969.11	923.07	1014.77	1082.07
50th (median)	713.51	752.98	807.47	865.98	805.94	858.70	941.14
25th	657.15	701.22	728.38	803.39	732.87	781.22	829.99
5th	588.75	629.27	668.64	740.85	650.50	686.67	717.66
1st	555.86	586.52	623.39	709.76	587.57	630.29	674.71
Range	554.18	637.35	640.42	641.02	970.13	777.98	934.03
Restricted range	430.34	471.62	481.56	480.42	600.62	533.22	613.59
Restricted range ratio	0.731	0.749	0.720	0.648	0.923	0.777	0.855
Mean deviation from median	94.91	99.35	106.99	102.51	138.52	133.59	147.55
Relative deviation from median	0.133	0.132	0.133	0.118	0.172	0.156	0.157
Mean	747.14	792.04	835.14	903.94	862.96	902.01	978.63
Standard deviation	124.241	133.761	139.949	138.300	191.754	174.024	193.434
Coefficient of variation	0.166	0.169	0.168	0.153	0.222	0.193	0.198
Mean deviation from mean	98.51	102.92	108.92	106.78	146.27	140.54	150.77
Relative deviation from mean	0.132	0.130	0.130	0.118	0.169	0.156	0.154
Gini coefficient	0.091	0.091	0.091	0.082	0.117	0.106	0.109
Regression results							
Adj. wealth: Linear F	109.866	116.181	110.747	131.147	91.898	45.828	56.809
Elasticity	0.176	0.187	0.198	0.210	0.258	0.162	0.176
Quadratic F	65.990	67.012	65.894	71.165	54.326	39.283	40.960
Elasticity	0.258	0.263	0.277	0.259	0.346	0.298	0.292
Income: Linear F	29.537	38.025	34.423	26.637	4.835	5.400	3.361
Elasticity	0.155	0.164	0.162	0.133	0.078	0.078	0.061
Quadratic F	15.692	20.377	18.930	15.920	2.510	3.265	1.837
Elasticity	0.122	0.127	0.117	0.081	0.062	0.043	0.042
Adj. tax rate: Linear F	7.519	7.664	8.154	0.276	7.105	7.987	15.585
Elasticity	-0.195	-0.188	-0.192	-0.040	-0.292	-0.280	-0.365
Quadratic F	10.706	10.117	8.998	3.530	6.574	8.382	9.810
Elasticity	-0.200	-0.193	-0.191	-0.039	-0.181	-0.147	-0.301
Mean for adj. wealth decile							
1st	655.57	702.06	723.80	795.42	724.28	804.59	848.33
2nd	662.46	696.30	733.44	807.62	728.15	759.33	868.52
3rd	691.18	736.34	783.73	837.46	772.26	822.05	900.50
4th	677.89	745.88	783.10	871.29	776.23	869.96	887.59
5th	736.24	735.70	789.13	842.71	789.85	859.84	906.06
6th	737.01	755.25	781.38	845.74	824.57	842.82	938.27
7th	708.29	774.93	825.09	876.09	871.07	899.99	1017.24
8th	795.49	850.69	897.92	979.66	959.10	913.84	993.40
9th	845.36	891.82	977.68	1056.59	1063.34	1110.65	1146.08
10th	961.90	1031.39	1056.16	1126.81	1120.70	1137.04	1280.36
Mean for income decile							
1st	637.25	703.39	762.44	848.71	824.66	883.32	946.74
2nd	750.02	749.10	774.97	829.19	760.97	817.61	904.04
3rd	666.09	713.28	743.39	827.94	774.26	800.76	925.64
4th	700.60	773.91	791.55	903.69	827.18	915.63	956.75
5th	697.85	738.22	844.11	903.34	874.46	894.05	971.55
6th	771.62	789.09	822.87	865.58	812.63	857.18	866.71
7th	762.98	777.89	828.15	871.66	845.76	907.90	1057.67
8th	740.91	820.45	835.69	906.54	872.05	897.42	909.26
9th	740.08	784.58	841.52	912.30	834.83	838.28	975.88
10th	847.46	904.48	955.50	1007.61	886.15	956.01	1012.14
Mean for district type							
Below median ADM	770.98	815.10	860.79	939.23	949.87	965.18	1058.90
Above median ADM	723.30	768.97	809.50	868.64	776.04	838.84	898.37
Below median % urban	730.09	767.69	812.41	886.52	856.80	896.70	982.08
Above median % urban	732.89	783.18	827.63	888.79	805.79	856.93	923.20
Below median % white	738.52	782.76	832.47	902.13	844.24	891.44	966.50
Above median % white	724.45	768.12	807.57	873.19	818.35	862.19	938.77
Below median % poverty	754.68	807.90	852.91	909.11	843.18	897.47	962.48
Above median % poverty	708.29	742.98	787.13	866.21	819.41	856.16	942.80
Correlation with							
ADM	-0.146	-0.129	-0.137	-0.184	-0.318	-0.306	-0.307
Adj. wealth	0.697	0.709	0.700	0.734	0.671	0.539	0.578
Income	0.469	0.516	0.497	0.452	0.211	0.222	0.177
% Urban	-0.033	0.012	-0.004	-0.053	-0.221	-0.215	-0.263
% White	-0.029	-0.041	-0.064	-0.092	-0.104	-0.058	-0.056
% Poverty	-0.223	-0.277	-0.272	-0.160	0.003	-0.102	-0.012
Adj. tax rate	-0.247	-0.250	-0.257	-0.050	-0.244	-0.258	-0.348
Gini by adj. wealth distribution	0.240	0.236	0.224	0.211	0.207	0.221	0.226
Gini by income distribution	0.212	0.210	0.211	0.216	0.240	0.239	0.246

Table A.12  
DISTRIBUTION OF INSTRUCTIONAL EXPENDITURES PER PUPIL  
IN CALIFORNIA HIGH SCHOOL DISTRICTS (continued)

Measure	1970-71	1971-72	1972-73	Weighted 1973-74	1974-75	1975-76	1976-77
Percentile							
100th	1110.04	1223.87	1263.81	1350.78	1557.70	1408.28	1608.74
95th	1011.28	1096.23	1162.37	1224.17	1076.86	1091.12	1199.19
75th	771.32	816.73	858.14	904.65	833.27	878.23	975.41
50th (median)	697.23	750.41	782.32	850.95	769.20	795.40	887.49
25th	653.00	684.70	715.49	777.99	692.23	740.16	792.89
5th	594.63	629.02	682.66	724.89	614.69	669.45	719.35
1st	555.86	586.52	623.39	709.76	587.57	630.29	674.71
Range	554.18	637.35	640.42	641.02	970.13	777.98	934.03
Restricted range	416.65	467.21	479.71	499.27	462.19	423.67	479.84
Restricted range ratio	0.701	0.743	0.703	0.689	0.752	0.633	0.667
Mean deviation from median	72.32	80.60	88.55	85.33	90.27	95.72	106.53
Relative deviation from median	0.104	0.107	0.113	0.100	0.117	0.120	0.120
Mean	723.03	768.96	809.24	869.40	780.69	830.59	899.69
Standard deviation	104.067	113.475	123.483	121.102	123.389	127.534	134.485
Coefficient of variation	0.144	0.148	0.153	0.139	0.158	0.154	0.149
Mean deviation from mean	75.66	82.06	90.49	86.43	91.00	98.41	107.12
Relative deviation from mean	0.105	0.107	0.112	0.099	0.117	0.118	0.119
Gini coefficient	0.074	0.076	0.078	0.072	0.083	0.082	0.082
Regression results							
Adj. wealth: Linear F	97.761	91.445	113.869	143.390	103.311	73.708	64.813
Elasticity	0.214	0.218	0.242	0.233	0.227	0.186	0.180
Quadratic F	57.398	52.401	63.131	74.823	56.210	53.908	41.178
Elasticity	0.266	0.267	0.286	0.261	0.266	0.268	0.247
Income: Linear F	78.352	86.408	92.078	75.573	32.488	26.203	21.219
Elasticity	0.226	0.231	0.236	0.200	0.164	0.146	0.128
Quadratic F	54.003	60.097	61.069	52.897	20.357	18.503	13.177
Elasticity	0.153	0.150	0.153	0.115	0.099	0.072	0.077
Adj. tax rate: Linear F	0.522	0.273	1.274	7.247	0.000	0.508	2.845
Elasticity	-0.057	-0.043	-0.092	0.230	-0.001	-0.074	-0.170
Quadratic F	0.502	0.912	1.620	3.746	2.166	3.642	4.428
Elasticity	-0.057	-0.048	-0.097	0.225	0.070	-0.047	-0.103
Mean for adj. wealth decile							
1st	629.05	668.31	689.86	752.45	713.15	783.67	846.78
2nd	660.38	719.02	759.37	799.88	707.28	734.87	766.44
3rd	682.18	706.77	730.93	855.07	720.04	742.20	842.81
4th	667.61	738.79	753.04	769.29	675.28	760.86	829.37
5th	724.15	727.23	826.04	846.88	765.78	780.92	887.62
6th	713.65	788.46	787.81	897.22	795.03	844.33	881.96
7th	728.70	782.41	861.20	907.34	786.69	860.06	957.20
8th	742.27	772.53	795.83	853.96	785.17	852.07	872.41
9th	723.51	774.45	811.66	874.58	834.62	878.97	969.19
10th	958.79	1011.64	1076.65	1137.31	1023.88	1067.95	1143.08
Mean for income decile							
1st	653.71	682.19	707.09	774.75	727.67	800.24	877.81
2nd	672.82	735.74	761.76	819.60	731.41	787.89	840.28
3rd	694.48	751.97	790.89	847.82	781.23	812.49	851.78
4th	662.54	700.65	744.60	819.06	695.71	734.04	888.91
5th	755.55	795.22	838.04	859.05	741.42	819.60	819.10
6th	712.82	739.32	787.64	899.37	837.13	891.80	963.62
7th	719.04	764.13	822.12	865.93	786.35	835.92	889.34
8th	709.33	752.56	783.85	844.39	748.79	769.62	871.35
9th	717.80	782.90	819.88	867.16	797.20	833.58	928.41
10th	930.96	995.97	1049.15	1088.81	943.42	1005.59	1051.54
Mean for district type							
Below median ADM	731.07	776.37	829.63	898.56	788.99	848.95	908.09
Above median ADM	714.99	761.56	788.85	840.24	772.39	812.22	891.29
Below median % urban	720.76	766.51	807.70	877.36	796.42	851.26	918.10
Above median % urban	725.05	773.62	813.31	859.83	761.65	806.90	878.33
Below median % white	750.65	794.30	835.74	895.85	803.31	867.35	934.96
Above median % white	695.16	745.83	785.26	841.33	754.75	790.80	861.47
Below median % poverty	740.30	790.01	834.09	883.10	787.37	828.09	892.89
Above median % poverty	705.51	750.12	786.91	854.08	770.69	830.06	903.54
Correlation with							
ADM	-0.272	-0.248	-0.255	-0.276	-0.326	-0.334	-0.326
Adj. wealth	0.676	0.666	0.705	0.749	0.693	0.630	0.604
Income	0.654	0.672	0.684	0.649	0.488	0.449	0.412
% Urban	0.057	0.076	0.083	0.048	-0.067	-0.096	-0.060
% White	-0.150	-0.114	-0.104	-0.156	-0.142	-0.204	-0.174
% Poverty	-0.248	-0.275	-0.272	-0.177	-0.086	-0.016	-0.021
Adj. tax rate	-0.067	-0.049	-0.105	0.247	-0.001	-0.067	-0.157
Gini by adj. wealth distribution	0.174	0.175	0.172	0.176	0.183	0.185	0.182
Gini by income distribution	0.189	0.190	0.193	0.202	0.219	0.226	0.232



Table A.14  
DISTRIBUTION OF LOCAL ADJUSTED TAX RATES  
IN CALIFORNIA HIGH SCHOOL DISTRICTS

Measure	1970-71	1971-72	1972-73	Unweighted 1973-74	1974-75	1975-76	1976-77
Percentile							
100th	7.85	8.60	8.76	7.93	6.60	7.00	6.92
95th	6.83	6.66	7.14	6.56	6.06	6.62	6.41
75th	5.48	5.62	5.95	5.66	5.48	5.82	5.73
50th (median)	4.88	5.08	5.35	5.00	4.88	5.25	4.95
25th	4.20	4.31	4.52	4.47	4.40	4.73	4.46
5th	3.12	3.02	3.14	3.21	3.25	3.37	3.13
1st	2.07	2.04	2.06	2.72	1.65	1.68	1.81
Range	5.78	6.56	6.70	5.21	4.95	5.32	5.11
Restricted range	3.72	3.64	4.00	3.35	2.81	3.25	3.27
Restricted range ratio	1.193	1.203	1.272	1.042	0.865	0.966	1.045
Mean deviation from median	0.79	0.86	0.89	0.74	0.69	0.69	0.73
Relative deviation from median	0.162	0.170	0.167	0.148	0.142	0.132	0.149
Mean	4.88	4.97	5.24	5.03	4.84	5.19	4.98
Standard deviation	1.028	1.117	1.176	0.954	0.900	0.922	0.938
Coefficient of variation	0.210	0.225	0.224	0.190	0.186	0.178	0.188
Mean deviation from mean	0.79	0.87	0.90	0.74	0.70	0.70	0.74
Relative deviation from mean	0.162	0.175	0.172	0.147	0.144	0.134	0.148
Gini coefficient	0.117	0.124	0.124	0.105	0.102	0.097	0.105
Regression results							
Adj. wealth: Linear F	90.453	82.011	90.662	16.800	63.363	62.449	79.133
Elasticity	-0.211	-0.226	-0.251	-0.128	-0.193	-0.165	-0.186
Quadratic F	50.838	45.439	48.234	14.746	31.554	31.585	42.453
Elasticity	-0.295	-0.312	-0.317	-0.015	-0.181	-0.190	-0.238
Income: Linear F	0.300	0.017	0.050	2.030	0.093	2.341	2.215
Elasticity	0.024	0.006	-0.010	0.054	0.011	-0.054	-0.055
Quadratic F	0.311	0.089	0.031	2.267	0.798	1.913	1.130
Elasticity	0.046	0.023	-0.005	0.113	0.056	-0.012	-0.045
Mean for adj. wealth decile							
1st	5.97	6.21	6.36	4.66	4.85	5.40	5.35
2nd	5.34	5.23	5.96	4.93	5.25	5.44	5.52
3rd	5.68	5.57	5.78	5.44	5.35	5.81	5.59
4th	4.95	5.38	5.71	5.36	5.16	5.30	5.20
5th	4.93	5.23	5.29	5.15	5.23	5.64	5.37
6th	4.84	4.94	5.24	5.51	5.19	5.41	5.05
7th	4.67	5.01	5.09	5.20	4.84	5.25	4.89
8th	4.77	4.57	5.15	5.14	4.85	5.12	4.84
9th	4.44	4.34	4.38	5.12	4.21	4.86	4.62
10th	3.24	3.23	3.43	3.83	3.49	3.67	3.39
Mean for income decile							
1st	5.14	5.08	5.50	4.94	4.69	5.16	5.19
2nd	4.69	5.05	5.22	4.75	4.78	5.40	5.17
3rd	4.99	5.20	5.82	4.80	4.94	5.40	4.95
4th	4.97	5.03	5.19	5.06	4.78	5.26	5.51
5th	4.97	4.90	5.04	4.95	5.11	5.18	4.82
6th	4.96	5.24	5.59	5.13	4.65	5.35	5.24
7th	4.86	5.13	5.29	5.13	5.03	5.46	4.90
8th	4.89	4.73	5.13	5.46	5.15	5.36	5.27
9th	5.52	5.74	5.94	5.52	5.10	5.22	4.72
10th	4.95	4.94	5.13	5.08	4.73	4.72	4.73
Mean for district type							
Below median ADM	4.32	4.36	4.63	4.81	4.51	4.92	4.58
Above median ADM	5.45	5.59	5.85	5.26	5.17	5.46	5.38
Below median % urban	4.63	4.71	5.01	4.97	4.70	5.11	4.97
Above median % urban	5.36	5.50	5.76	5.20	5.09	5.39	5.13
Below median % white	4.93	5.03	5.27	5.02	4.76	5.18	5.02
Above median % white	5.05	5.17	5.50	5.15	5.03	5.32	5.09
Below median % poverty	5.29	5.37	5.62	5.32	5.04	5.26	5.09
Above median % poverty	4.70	4.84	5.15	4.85	4.76	5.24	5.02
Correlation with							
ADM	0.514	0.519	0.495	0.191	0.305	0.213	0.323
Adj. wealth	-0.662	-0.645	-0.664	-0.361	-0.601	-0.598	-0.642
Income	0.053	0.013	-0.022	0.138	0.030	-0.148	-0.144
% Urban	0.393	0.374	0.315	0.147	0.224	0.098	0.118
% White	-0.001	0.012	0.054	0.078	0.113	0.082	-0.048
% Poverty	-0.252	-0.200	-0.179	-0.238	-0.181	0.005	-0.088
Gini by adj. wealth distribution	0.370	0.374	0.365	0.302	0.331	0.326	0.343
Gini by income distribution	0.251	0.259	0.262	0.238	0.252	0.266	0.272

Table A.14  
DISTRIBUTION OF LOCAL ADJUSTED TAX RATES  
IN CALIFORNIA HIGH SCHOOL DISTRICTS (continued)

Measure	1970-71	1971-72	1972-73	Weighted 1973-74	1974-75	1975-76	1976-77
Percentile							
100th	7.85	8.60	8.76	7.93	6.60	7.00	6.92
95th	6.94	6.99	8.07	6.53	6.42	6.96	6.41
75th	6.17	6.35	6.72	5.87	5.67	5.95	5.93
50th (median)	5.49	5.66	6.00	5.35	5.26	5.40	5.37
25th	5.03	5.17	5.37	4.68	4.68	4.80	4.84
5th	4.25	4.33	4.44	4.02	4.32	4.49	4.32
1st	2.07	2.04	2.06	2.72	1.65	1.68	1.81
Range	5.78	6.56	6.70	5.21	4.95	5.32	5.11
Restricted range	2.69	2.66	3.64	2.50	2.10	2.47	2.09
Restricted range ratio	0.632	0.616	0.820	0.622	0.487	0.550	0.484
Mean deviation from median	0.75	0.74	0.82	0.66	0.57	0.62	0.61
Relative deviation from median	0.137	0.130	0.136	0.123	0.108	0.114	0.114
Mean	5.59	5.75	6.02	5.28	5.21	5.45	5.39
Standard deviation	0.942	0.959	1.045	0.789	0.697	0.765	0.741
Coefficient of variation	0.169	0.167	0.173	0.149	0.134	0.140	0.138
Mean deviation from mean	0.75	0.74	0.82	0.66	0.57	0.62	0.61
Relative deviation from mean	0.135	0.129	0.136	0.125	0.109	0.113	0.113
Gini coefficient	0.095	0.092	0.097	0.085	0.074	0.078	0.077
Regression results							
Adj. wealth: linear F	55.075	57.326	70.009	0.000	7.979	13.672	33.110
Elasticity	-0.210	-0.213	-0.240	0.000	-0.071	-0.089	-0.131
Quadratic F	30.905	30.953	37.919	8.450	7.992	7.395	16.565
Elasticity	-0.259	-0.254	-0.283	0.096	-0.018	-0.066	-0.141
Income: linear F	3.916	4.431	8.439	5.742	0.105	4.521	9.679
Elasticity	-0.075	-0.077	-0.106	0.076	0.009	-0.062	-0.085
Quadratic F	2.007	2.220	4.218	9.986	5.390	5.608	5.255
Elasticity	-0.085	-0.071	-0.115	0.179	0.090	0.004	-0.063
Mean for adj. wealth decile							
1st	6.23	6.27	6.57	4.31	4.58	5.03	5.52
2nd	6.77	6.89	7.53	5.04	5.09	5.21	5.05
3rd	5.95	6.23	6.39	5.79	5.53	5.90	5.76
4th	5.67	5.64	6.28	4.99	5.27	5.74	6.01
5th	6.01	5.79	6.31	5.60	5.69	5.88	5.81
6th	5.37	5.84	5.84	6.05	5.72	5.76	5.48
7th	5.12	5.97	6.10	5.54	5.28	5.44	5.66
8th	4.88	5.04	5.06	5.16	5.42	5.92	5.13
9th	4.87	4.89	5.20	5.35	5.01	5.13	5.00
10th	5.00	4.93	4.97	4.99	4.52	4.55	4.43
Mean for income decile							
1st	5.73	5.87	6.27	4.45	4.54	5.20	5.53
2nd	5.62	5.83	6.26	4.97	5.07	5.43	5.58
3rd	6.02	5.90	6.47	5.46	5.69	5.97	5.86
4th	6.15	6.48	6.58	4.76	4.88	5.12	5.37
5th	5.88	6.09	6.42	5.68	5.04	5.47	5.07
6th	5.22	5.18	5.24	5.06	5.50	5.85	5.43
7th	5.44	5.71	6.04	5.91	5.76	5.82	5.66
8th	5.51	5.79	6.07	5.48	5.29	5.43	5.32
9th	5.32	5.69	5.86	5.85	5.50	5.49	5.22
10th	5.37	5.26	5.36	5.20	4.86	4.81	4.86
Mean for district type							
Below median ADM	5.32	5.44	5.65	5.26	5.08	5.39	5.29
Above median ADM	5.86	6.05	6.40	5.30	5.35	5.51	5.48
Below median % urban	5.56	5.69	6.06	5.27	5.21	5.61	5.42
Above median % urban	5.69	5.87	6.06	5.30	5.22	5.30	5.36
Below median % white	5.44	5.55	5.79	5.15	5.10	5.40	5.41
Above median % white	5.81	6.01	6.33	5.42	5.33	5.52	5.37
Below median % poverty	5.86	5.96	6.24	5.51	5.36	5.46	5.34
Above median % poverty	5.39	5.60	5.88	5.06	5.07	5.45	5.44
Correlation with							
ADM	0.493	0.504	0.485	-0.117	0.062	0.004	0.167
Adj. wealth	-0.567	-0.577	-0.615	0.000	-0.258	-0.330	-0.476
Income	-0.190	-0.201	-0.273	0.229	0.032	-0.204	-0.292
% Urban	0.335	0.346	0.293	0.185	0.184	0.044	0.064
% White	0.013	0.055	0.104	0.163	0.131	0.040	-0.106
% Poverty	-0.260	-0.252	-0.201	-0.323	-0.237	0.038	0.042
Gini by adj. wealth distribution	0.283	0.282	0.291	0.227	0.247	0.257	0.261
Gini by income distribution	0.260	0.262	0.275	0.225	0.246	0.265	0.278

Table A-17  
DISTRIBUTION OF GENERAL REVENUE PER FIRM  
IN CALIFORNIA (ENTERED DISTRIBUTION)

Measure	1970-71	1971-72	1972-73	Low-weighted 1973-74	1974-75	1975-76	1976-77
Percentile							
100th	2595.18	2711.91	2879.77	3184.90	2683.01	3729.17	5064.35
95th	1406.19	1426.79	1461.31	1685.48	1781.21	1992.40	2142.39
75th	926.35	1008.35	1129.57	1230.47	1281.47	1404.94	1559.25
50th (median)	796.79	844.04	917.56	1047.32	1111.36	1222.67	1372.70
25th	718.57	751.01	815.36	960.79	1022.30	1146.15	1279.24
5th	655.54	676.88	744.54	870.44	965.65	1084.62	1201.64
1st	531.49	520.28	655.50	777.60	876.34	944.53	1122.94
Range	2061.68	2191.64	2226.23	2407.24	1812.67	3184.61	2441.42
Restricted range	650.64	743.91	776.77	818.04	815.57	967.78	940.75
Restricted range ratio	0.993	1.099	1.049	0.940	0.845	0.837	0.783
Mean deviation from median	147.40	168.44	186.77	184.31	172.40	195.47	212.60
Relative deviation from median	0.185	0.200	0.204	0.176	0.155	0.160	0.155
Mean	862.96	913.13	1000.71	1137.82	1199.84	1334.64	1487.85
Standard deviation	237.422	259.691	284.933	289.265	266.823	328.113	346.977
Coefficient of variation	0.275	0.284	0.283	0.254	0.222	0.246	0.233
Mean deviation from mean	157.28	179.20	200.03	199.22	187.81	215.56	232.79
Relative deviation from mean	0.182	0.196	0.200	0.175	0.157	0.162	0.156
Gini coefficient	0.127	0.136	0.136	0.120	0.107	0.110	0.107
Regression results							
Adj. wealth: Linear F	568.941	583.732	489.391	548.766	473.736	280.142	303.163
Elasticity	0.322	0.338	0.328	0.287	0.261	0.244	0.236
Quadratic F	288.207	290.657	245.787	273.302	235.916	139.672	153.961
Elasticity	0.297	0.339	0.347	0.285	0.262	0.250	0.262
Income: Linear F	54.442	53.837	48.010	35.449	40.471	33.324	23.640
Elasticity	0.231	0.238	0.227	0.170	0.156	0.155	0.119
Quadratic F	27.475	27.562	24.614	18.060	20.151	16.632	11.776
Elasticity	0.257	0.276	0.264	0.195	0.154	0.163	0.116
Adj. tax rate: Linear F	9.976	12.766	15.280	0.844	10.663	8.011	14.122
Elasticity	-0.236	-0.270	-0.295	-0.067	-0.206	-0.199	-0.252
Quadratic F	11.719	17.788	16.360	13.970	31.955	11.886	16.549
Elasticity	-0.248	-0.299	-0.311	-0.099	-0.198	-0.114	-0.132
Mean for adj. wealth decile							
1st	667.14	704.19	782.40	916.37	1002.32	1128.05	1229.83
2nd	721.81	737.75	801.63	956.91	1041.08	1142.31	1282.86
3rd	727.18	770.92	839.61	963.43	1034.98	1154.16	1323.85
4th	758.39	801.61	843.18	1006.03	1090.40	1253.17	1322.98
5th	803.89	822.69	948.66	1085.68	1133.05	1259.58	1397.53
6th	808.03	874.47	945.71	1065.40	1135.23	1257.44	1450.54
7th	872.86	926.27	1025.58	1146.80	1158.92	1280.78	1453.09
8th	957.67	1004.11	1083.77	1257.69	1328.74	1426.73	1540.48
9th	1043.20	1095.66	1213.59	1326.51	1367.56	1544.59	1803.54
10th	1269.46	1393.60	1522.99	1653.36	1706.11	1899.60	2073.74
Mean for income decile							
1st	723.91	761.72	856.18	994.79	1091.59	1196.63	1332.04
2nd	723.75	757.38	844.28	992.80	1093.05	1206.81	1339.69
3rd	752.35	784.46	857.18	1050.05	1094.67	1232.77	1415.58
4th	827.62	842.70	926.77	1055.34	1106.24	1218.65	1354.43
5th	843.75	881.51	993.11	1129.40	1123.52	1272.51	1416.86
6th	816.18	924.77	978.50	1109.13	1175.64	1261.25	1480.68
7th	887.73	909.88	978.05	1076.79	1267.04	1411.83	1562.28
8th	947.87	1030.55	1147.59	1275.88	1241.66	1415.70	1549.80
9th	938.21	992.75	1068.84	1207.03	1301.36	1396.65	1524.67
10th	1054.67	1105.56	1202.09	1303.01	1363.27	1522.94	1617.88
Mean for district type							
Below median ADM	919.02	975.75	1072.59	1225.32	1273.79	1428.20	1600.11
Above median ADM	806.90	850.50	928.84	1050.32	1125.89	1241.09	1375.58
Below median % urban	853.76	900.05	995.09	1140.27	1212.21	1331.38	1503.91
Above median % urban	849.45	898.21	975.42	1098.58	1159.40	1295.76	1414.88
Below median % white	839.42	886.75	973.98	1106.29	1177.58	1303.07	1445.95
Above median % white	863.79	911.51	996.54	1132.56	1194.03	1324.08	1472.83
Below median % poverty	850.95	902.53	989.81	1109.38	1175.39	1291.80	1434.43
Above median % poverty	852.26	895.73	980.71	1129.47	1196.22	1335.35	1484.35
Correlation with							
ADM	-0.062	-0.051	-0.022	-0.073	-0.059	-0.061	-0.077
Adj. wealth	0.840	0.842	0.818	0.829	0.811	0.726	0.736
Income	0.441	0.439	0.416	0.361	0.385	0.352	0.302
% Urban	-0.093	-0.100	-0.148	-0.214	-0.252	-0.200	-0.288
% White	-0.167	-0.163	-0.174	-0.176	-0.151	-0.200	-0.118
% Poverty	-0.104	-0.118	-0.093	-0.048	-0.033	-0.030	-0.031
Adj. tax rate	-0.201	-0.225	-0.244	-0.058	-0.204	-0.176	-0.229
Gini by adj. wealth distribution	0.244	0.237	0.239	0.256	0.261	0.275	0.269
Gini by income distribution	0.207	0.209	0.213	0.227	0.231	0.235	0.243

Table A-12  
DISTRIBUTION OF GENERAL REVENUE PER PUPIL  
IN CALIFORNIA DISTRICT DISRICTS (continued)

Measure	1970-71	1971-72	1972-73	Weighted 1973-74	1974-75	1975-76	1976-77
Percentile							
100th	2593.18	2711.91	2878.73	3184.90	2683.01	3729.13	3564.35
95th	1114.95	1191.37	1274.82	1338.94	1475.03	1570.27	1742.57
75th	828.36	868.56	1080.42	1085.49	1167.25	1271.25	1426.17
50th (median)	783.34	851.15	946.64	1033.96	1113.38	1255.80	1383.87
25th	723.42	766.70	837.12	912.16	1031.74	1163.67	1294.96
5th	657.20	680.01	751.42	891.59	965.80	1099.27	1216.64
1st	531.49	520.28	653.50	777.66	870.34	944.53	1122.94
Range	2061.68	2191.64	2226.23	2407.24	1812.67	3184.61	2441.42
Restricted range	457.75	512.35	521.46	447.35	509.23	471.00	525.93
Restricted range ratio	0.697	0.753	0.697	0.502	0.527	0.428	0.432
Mean deviation from median	87.89	106.68	143.24	98.48	106.62	107.14	107.72
Relative deviation from median	0.112	0.125	0.151	0.095	0.096	0.085	0.078
Mean	809.89	865.72	977.89	1062.42	1144.33	1263.32	1393.66
Standard deviation	154.396	168.750	183.932	168.237	164.156	183.980	180.997
Coefficient of variation	0.191	0.195	0.188	0.158	0.143	0.146	0.130
Mean deviation from mean	98.36	107.22	145.24	109.24	108.15	107.56	111.76
Relative deviation from mean	0.121	0.124	0.149	0.103	0.095	0.085	0.080
Gini coefficient	0.087	0.093	0.100	0.073	0.069	0.064	0.059
Regression results							
Adj. wealth: Linear F	490.592	568.623	443.823	453.808	414.875	377.103	492.745
Elasticity	0.314	0.330	0.310	0.260	0.233	0.220	0.219
Quadratic F	244.323	285.595	235.344	226.317	210.504	188.154	245.497
Elasticity	0.312	0.344	0.350	0.265	0.251	0.214	0.221
Income: Linear F	236.912	184.677	89.206	191.500	139.780	163.549	140.103
Elasticity	0.267	0.252	0.190	0.194	0.160	0.167	0.140
Quadratic F	128.607	104.275	57.588	104.274	85.397	98.749	82.718
Elasticity	0.208	0.176	0.093	0.142	0.090	0.097	0.084
Adj. tax rate: Linear F	0.265	1.044	11.582	27.827	6.713	0.595	2.800
Elasticity	-0.038	-0.078	-0.234	0.331	0.165	-0.056	-0.111
Quadratic F	8.217	5.497	12.190	27.263	25.082	32.213	29.940
Elasticity	-0.141	-0.151	-0.318	0.287	0.204	0.069	0.062
Mean for adj. wealth decile							
1st	673.29	711.86	789.71	929.34	1002.73	1144.39	1239.91
2nd	724.24	746.10	814.62	965.12	1033.83	1147.75	1273.58
3rd	749.21	783.86	869.10	972.59	1041.78	1148.55	1287.32
4th	732.12	781.41	851.22	990.98	1059.26	1193.60	1338.22
5th	780.35	824.89	903.06	1073.43	1144.00	1271.98	1383.22
6th	825.28	889.90	1048.70	1033.96	1167.25	1262.48	1383.87
7th	783.34	868.56	1080.32	1033.96	1177.07	1264.77	1402.21
8th	783.56	868.02	1030.35	1065.02	1135.22	1283.05	1453.90
9th	899.64	981.46	1122.28	1174.46	1231.18	1285.98	1399.49
10th	1147.89	1201.09	1269.54	1385.30	1450.98	1630.61	1774.87
Mean for income decile							
1st	735.17	779.44	854.32	973.65	1035.48	1143.16	1273.68
2nd	783.34	868.56	1080.32	1034.14	1168.14	1255.53	1369.55
3rd	775.47	868.56	1080.32	1033.96	1167.25	1262.48	1383.87
4th	720.37	743.09	859.55	967.66	1072.80	1195.54	1339.57
5th	740.84	777.83	852.37	995.58	1049.28	1211.12	1347.39
6th	772.10	808.26	895.64	1018.99	1087.31	1190.29	1344.43
7th	771.32	845.94	917.12	1048.32	1108.62	1235.27	1352.27
8th	840.14	888.38	967.62	1083.68	1144.88	1250.44	1399.27
9th	854.42	915.04	997.58	1143.11	1207.79	1331.03	1465.99
10th	1111.42	1167.22	1282.22	1322.83	1406.71	1559.23	1656.44
Mean for district type							
Below median ADM	809.86	854.14	930.13	1059.22	1129.07	1247.52	1383.50
Above median ADM	809.93	877.29	1025.65	1065.62	1159.59	1279.11	1403.82
Below median % urban	784.61	825.48	913.29	1032.97	1104.17	1224.52	1366.66
Above median % urban	836.31	906.98	1044.13	1091.41	1185.48	1302.30	1419.83
Below median % white	824.26	888.58	1039.00	1075.74	1171.44	1289.11	1408.74
Above median % white	796.66	843.89	918.42	1048.64	1118.22	1237.70	1377.76
Below median % poverty	804.63	854.64	941.67	1061.21	1127.38	1249.87	1381.94
Above median % poverty	816.29	877.83	1015.74	1063.17	1162.27	1276.94	1404.55
Correlation with							
ADM	-0.086	0.016	0.305	-0.084	0.081	0.009	-0.016
Adj. wealth	0.821	0.839	0.804	0.804	0.792	0.774	0.811
Income	0.716	0.671	0.529	0.669	0.613	0.640	0.610
% Urban	0.036	0.069	0.142	0.029	0.057	0.068	-0.000
% White	-0.195	-0.247	-0.382	-0.228	-0.301	-0.250	-0.201
% Poverty	-0.073	-0.063	0.022	-0.071	-0.016	-0.057	-0.060
Adj. tax rate	-0.033	-0.066	-0.214	0.317	0.163	-0.049	-0.104
Gini by adj. wealth distribution	0.177	0.165	0.163	0.175	0.178	0.189	0.184
Gini by income distribution	0.202	0.210	0.230	0.225	0.239	0.239	0.245

Table A.1  
DEVELOPMENTAL DIFFERENTIALS: PERCENTAGE DIFFERENTIALS  
IN SELECTED ECONOMIC INDICATORS

Variable	1970-71	1971-72	1972-73	1973-74	1974-75	1975-76	1976-77
Percentile							
10th	106.14	271.156	258.189	184.99	268.107	129.11	156.135
20th	116.47	146.111	157.115	1104.36	181.118	206.111	214.111
30th	998.11	1628.118	1111.111	1241.109	1361.109	141.111	1401.109
50th (median)	811.111	341.106	941.161	1211.112	1111.111	1150.111	1391.100
75th	121.10	761.101	814.116	981.147	1640.149	1150.111	1196.119
90th	677.109	699.111	561.145	891.111	984.111	1101.111	1221.111
1st	661.11	361.110	671.118	801.111	941.111	944.111	1154.111
Range	2004.190	2121.180	2120.110	2170.119	1748.107	1184.111	2410.119
Restricted range	616.107	761.111	801.110	811.104	811.111	911.111	1016.111
Restricted range ratio	0.304	0.080	0.050	0.012	0.050	0.080	0.081
Mean deviation from median	141.101	166.168	181.116	186.111	181.107	200.111	231.111
Relative deviation from median	0.119	0.194	0.199	0.114	0.160	0.111	0.166
Mean	880.169	911.110	1021.118	1150.112	1221.111	1256.111	1524.119
Standard deviation	211.112	251.112	289.119	290.111	271.111	311.111	368.111
Coefficient of variation	0.265	0.276	0.283	0.250	0.221	0.244	0.241
Mean deviation from mean	151.116	171.111	206.110	200.111	191.111	219.110	251.116
Relative deviation from mean	0.176	0.190	0.196	0.173	0.160	0.167	0.167
Gini coefficient	0.122	0.131	0.135	0.119	0.108	0.110	0.113
Regression results							
Adj. wealth: Linear F	548.126	561.110	441.111	512.111	362.111	249.111	207.111
Elasticity	0.309	0.326	0.321	0.279	0.249	0.236	0.222
Quadratic F	283.118	281.111	222.111	256.111	180.111	124.111	103.111
Elasticity	0.274	0.316	0.331	0.268	0.243	0.234	0.238
Income: Linear F	51.111	51.111	41.111	32.111	36.111	31.111	17.111
Elasticity	0.216	0.225	0.213	0.161	0.150	0.150	0.110
Quadratic F	25.111	26.111	21.111	16.111	18.111	15.111	8.111
Elasticity	0.234	0.258	0.243	0.184	0.147	0.159	0.106
Adj. tax rate: Linear F	14.111	18.111	19.111	2.111	12.111	9.111	17.111
Elasticity	-0.276	-0.313	-0.330	-0.120	-0.225	-0.213	-0.293
Quadratic F	16.111	23.111	19.111	18.111	34.111	13.111	19.111
Elasticity	-0.289	-0.344	-0.346	-0.154	-0.217	-0.127	-0.163
Mean for adj. wealth decile							
1st	711.11	754.111	829.111	957.111	1059.111	1176.111	1317.111
2nd	747.111	772.111	831.111	995.111	1081.111	1173.111	1337.111
3rd	740.111	782.111	863.111	983.111	1045.111	1168.111	1369.111
4th	778.111	827.111	857.111	1027.111	1125.111	1282.111	1336.111
5th	810.111	827.111	954.111	1098.111	1144.111	1268.111	1414.111
6th	825.111	892.111	955.111	1072.111	1146.111	1270.111	1461.111
7th	884.111	939.111	1045.111	1158.111	1168.111	1299.111	1481.111
8th	967.111	1017.111	1096.111	1283.111	1364.111	1446.111	1588.111
9th	1060.111	1119.111	1232.111	1349.111	1392.111	1569.111	1842.111
10th	1279.111	1410.111	1556.111	1671.111	1723.111	1911.111	2096.111
Mean for income decile							
1st	769.111	813.111	893.111	1017.111	1118.111	1221.111	1372.111
2nd	750.111	779.111	897.111	1046.111	1116.111	1230.111	1348.111
3rd	762.111	805.111	872.111	1071.111	1148.111	1240.111	1457.111
4th	838.111	854.111	934.111	1065.111	1120.111	1262.111	1480.111
5th	855.111	895.111	1006.111	1143.111	1139.111	1287.111	1431.111
6th	828.111	936.111	991.111	1127.111	1194.111	1273.111	1496.111
7th	903.111	933.111	1002.111	1098.111	1295.111	1439.111	1584.111
8th	957.111	1043.111	1158.111	1288.111	1252.111	1428.111	1581.111
9th	951.111	1006.111	1084.111	1230.111	1321.111	1414.111	1548.111
10th	1067.111	1129.111	1220.111	1316.111	1385.111	1539.111	1642.111
Mean for district type							
Below median ADM	939.111	1000.111	1099.111	1251.111	1303.111	1454.111	1652.111
Above median ADM	822.111	868.111	944.111	1068.111	1146.111	1258.111	1396.111
Below median % urban	869.111	919.111	1016.111	1161.111	1236.111	1352.111	1543.111
Above median % urban	867.111	920.111	995.111	1119.111	1181.111	1315.111	1445.111
Below median % white	866.111	917.111	1007.111	1138.111	1214.111	1335.111	1505.111
Above median % white	870.111	921.111	1005.111	1142.111	1204.111	1331.111	1483.111
Below median % poverty	867.111	920.111	1011.111	1128.111	1196.111	1310.111	1469.111
Above median % poverty	869.111	918.111	1001.111	1152.111	1221.111	1357.111	1519.111
Correlation with							
ADM	-0.066	-0.057	-0.029	-0.079	-0.065	-0.067	-0.086
Adj. wealth	0.835	0.838	0.805	0.820	0.772	0.706	0.669
Income	0.430	0.431	0.392	0.349	0.369	0.342	0.263
% Urban	-0.087	-0.101	-0.147	-0.216	-0.252	-0.204	-0.284
% White	-0.217	-0.210	-0.208	-0.220	-0.200	-0.241	-0.193
% Poverty	-0.098	-0.100	-0.076	-0.025	-0.006	-0.006	-0.000
Adj. tax rate	-0.243	-0.269	-0.275	-0.105	-0.222	-0.189	-0.256
Gini by adj. wealth distribution	0.249	0.242	0.243	0.259	0.266	0.279	0.276
Gini by income distribution	0.209	0.210	0.216	0.229	0.233	0.236	0.249

Table A.16  
DISTRIBUTION OF GENERAL + PL874 REVENUE PER PUPIL  
IN CALIFORNIA UNIFIED DISTRICTS (continued)

Measure	1970-71	1971-72	1972-73	Weighted 1973-74	1974-75	1975-76	1976-77
Percentile							
100th	2607.43	2715.50	2885.88	3184.90	2683.01	3729.13	3564.35
95th	1125.06	1192.37	1283.16	1358.90	1475.03	1574.32	1743.42
75th	842.45	881.70	1085.30	1094.60	1171.62	1324.42	1459.26
50th (median)	789.93	864.28	961.44	1038.49	1170.46	1265.48	1388.37
25th	739.57	780.62	856.26	987.99	1053.07	1177.42	1307.61
5th	677.29	706.09	761.41	907.95	984.87	1121.24	1225.02
1st	602.53	592.70	665.58	805.31	934.94	544.53	1154.17
Range	2004.90	1122.80	2220.30	2379.59	1748.07	3184.61	2410.19
Restricted range	447.77	486.28	521.75	450.95	490.16	453.07	518.40
Restricted range ratio	0.661	0.689	0.685	0.497	0.498	0.404	0.423
Mean deviation from median	85.41	101.14	138.58	96.04	105.81	106.96	111.58
Relative deviation from median	0.108	0.117	0.144	0.092	0.090	0.085	0.080
Mean	824.77	882.21	992.32	1078.48	1161.83	1277.20	1412.09
Standard deviation	152.521	165.819	181.807	167.450	165.276	183.671	188.663
Coefficient of variation	0.185	0.188	0.183	0.155	0.142	0.144	0.134
Mean deviation from mean	97.28	105.25	141.14	108.66	106.00	111.59	120.30
Relative deviation from mean	0.118	0.119	0.142	0.103	0.091	0.087	0.085
Gini coefficient	0.083	0.089	0.096	0.071	0.068	0.064	0.061
Regression results							
Adj. wealth: Linear F	429.009	527.087	425.377	415.041	353.874	342.783	334.389
Elasticity	0.298	0.314	0.300	0.251	0.224	0.213	0.209
Quadratic F	214.465	262.791	220.683	206.693	177.630	171.645	166.717
Elasticity	0.289	0.320	0.332	0.250	0.236	0.203	0.205
Income: Linear F	255.463	211.856	94.842	210.891	152.016	174.519	130.379
Elasticity	0.264	0.252	0.189	0.195	0.162	0.167	0.140
Quadratic F	137.220	117.272	59.628	112.310	88.753	101.367	73.076
Elasticity	0.210	0.185	0.099	0.151	0.101	0.106	0.093
Adj. tax rate: Linear F	1.062	2.812	15.305	18.375	2.957	1.527	5.324
Elasticity	-0.073	-0.123	-0.260	0.268	0.110	-0.088	-0.157
Quadratic F	11.032	8.741	15.814	28.674	28.578	35.756	38.563
Elasticity	-0.186	-0.207	-0.351	0.216	0.152	0.039	0.037
Mean for adj. wealth decile							
1st	705.05	739.46	821.72	953.24	1033.74	1168.82	1276.16
2nd	745.83	777.61	833.22	995.21	1063.37	1165.44	1298.08
3rd	760.95	802.10	880.51	985.72	1055.79	1166.60	1316.66
4th	746.32	797.85	873.47	1009.37	1080.73	1211.82	1350.28
5th	806.28	849.01	924.21	1086.76	1150.63	1276.94	1392.28
6th	834.04	896.22	1053.39	1038.49	1171.62	1265.48	1388.37
7th	789.93	874.58	1085.36	1038.49	1185.90	1273.00	1412.60
8th	789.83	875.67	1034.87	1093.16	1167.15	1311.78	1489.47
9th	912.36	997.27	1134.90	1185.56	1241.97	1291.42	1406.00
10th	1157.11	1212.31	1281.51	1398.79	1467.35	1640.71	1791.05
Mean for income decile							
1st	751.87	797.38	873.04	984.79	1047.49	1154.42	1287.36
2nd	789.93	874.58	1085.36	1038.66	1173.09	1259.29	1373.52
3rd	785.51	874.58	1085.36	1038.49	1171.62	1265.48	1388.37
4th	737.71	766.05	883.70	1000.48	1097.61	1205.65	1353.88
5th	757.00	793.08	871.55	1004.45	1067.40	1229.13	1383.16
6th	788.15	824.49	903.00	1039.04	1110.35	1212.58	1359.17
7th	786.83	862.86	931.81	1063.36	1121.91	1244.36	1375.17
8th	852.18	903.11	977.12	1099.99	1164.02	1264.52	1416.57
9th	880.29	948.14	1027.11	1176.83	1241.70	1363.77	1505.15
10th	1124.64	1183.66	1294.00	1335.80	1421.13	1567.61	1667.24
Mean for district type							
Below median ADM	826.80	873.83	949.01	1078.68	1150.77	1265.96	1408.77
Above median ADM	822.74	890.59	1035.62	1078.27	1172.88	1288.44	1415.42
Below median % urban	805.70	850.05	935.46	1056.36	1129.36	1244.40	1392.70
Above median % urban	845.12	915.54	1050.95	1100.02	1193.90	1308.96	1429.22
Below median % white	843.62	910.24	1058.23	1097.66	1194.42	1308.00	1435.23
Above median % white	807.20	855.34	928.19	1058.72	1128.85	1245.36	1386.69
Below median % poverty	819.98	871.70	956.37	1076.24	1142.57	1262.12	1399.36
Above median % poverty	830.84	894.49	1030.04	1080.14	1180.69	1291.24	1422.56
Correlation with							
ADM	-0.113	-0.016	0.282	-0.117	0.041	-0.021	-0.053
Adj. wealth	0.802	0.829	0.798	0.791	0.768	0.759	0.753
Income	0.729	0.696	0.540	0.687	0.629	0.652	0.597
% Urban	0.028	0.060	0.129	0.018	0.042	0.055	-0.023
% White	-0.200	-0.250	-0.384	-0.230	-0.299	-0.249	-0.193
% Poverty	-0.069	-0.055	0.030	-0.060	-0.004	-0.046	-0.047
Adj. tax rate	-0.067	-0.108	-0.244	0.262	0.109	-0.078	-0.143
Gini by adj. wealth distribution	0.182	0.170	0.166	0.177	0.181	0.191	0.187
Gini by income distribution	0.201	0.207	0.228	0.223	0.237	0.238	0.244

TABLE 1  
DESCRIPTIVE STATISTICS FOR THE  
INCOME AND WEALTH DISTRIBUTIONS

Measure	1970-71	1971-72	1972-73	1973-74	1974-75	1975-76	1976-77
Percentiles							
1st	201.44	217.81	237.56	2472.89	1931.42	3221.84	2556.92
95th	1541.75	1871.01	1957.15	1838.42	1934.01	2130.27	2051.09
75th	991.14	1171.01	1171.49	1129.11	1185.81	1336.60	1267.14
50th (median)	844.95	891.01	905.83	1115.11	1210.46	1336.92	1303.73
25th	730.76	812.71	874.01	1037.26	1121.74	1253.17	1198.59
5th	690.17	724.61	796.41	951.15	1011.66	1196.11	1311.20
1st	552.78	591.01	608.65	817.86	991.67	1301.61	1212.62
Range	2086.64	2217.81	2377.56	2472.89	1931.42	3221.84	2556.92
Restricted range	635.23	783.46	791.71	907.16	872.93	934.14	1043.90
Restricted range ratio	0.949	1.080	1.002	0.924	0.832	0.781	0.796
Mean deviation from median	151.57	172.95	192.48	192.42	182.46	206.94	225.39
Relative deviation from median	0.179	0.193	0.197	0.170	0.151	0.155	0.180
Mean	914.56	970.45	1064.32	1225.15	1300.87	1451.54	1623.03
Standard deviation	241.624	265.938	294.187	300.511	280.047	341.870	367.153
Coefficient of variation	0.264	0.274	0.276	0.243	0.215	0.236	0.226
Mean deviation from mean	161.91	184.65	206.72	207.81	197.78	226.84	250.59
Relative deviation from mean	0.177	0.190	0.194	0.170	0.152	0.156	0.154
Gini coefficient	0.123	0.132	0.133	0.116	0.103	0.107	0.105
Regression results							
Adj. wealth: Linear F	525.838	558.258	459.000	482.089	413.812	254.498	274.460
Elasticity	0.305	0.323	0.315	0.271	0.247	0.228	0.224
Quadratic F	264.189	278.276	231.218	240.086	206.084	127.443	139.966
Elasticity	0.288	0.330	0.336	0.270	0.248	0.242	0.251
Income: Linear F	51.051	50.155	45.856	28.652	32.377	27.968	19.061
Elasticity	0.217	0.224	0.215	0.149	0.136	0.136	0.103
Quadratic F	25.907	25.923	23.670	14.538	16.141	13.925	9.539
Elasticity	0.245	0.265	0.254	0.169	0.131	0.136	0.095
Adj. tax rate: Linear F	9.003	12.091	14.082	0.534	10.163	6.921	14.285
Elasticity	-0.216	-0.253	-0.275	-0.052	-0.194	-0.177	-0.246
Quadratic F	10.844	17.086	15.140	13.625	30.806	10.297	15.884
Elasticity	-0.227	-0.281	-0.290	-0.082	-0.187	-0.101	-0.134
Mean for adj. wealth decile							
1st	710.46	754.80	831.51	989.14	1095.80	1230.36	1352.39
2nd	766.97	785.73	860.43	1047.17	1132.97	1251.47	1410.73
3rd	781.49	831.24	909.40	1057.63	1143.34	1268.97	1459.60
4th	810.43	859.48	905.19	1087.42	1189.65	1370.03	1442.72
5th	854.09	868.83	1004.91	1162.25	1226.47	1358.70	1533.09
6th	855.26	929.49	1004.16	1142.90	1227.50	1375.26	1576.35
7th	925.37	986.41	1093.95	1241.20	1259.47	1412.37	1584.11
8th	1018.57	1064.70	1152.38	1371.50	1451.39	1551.01	1682.59
9th	1103.99	1171.50	1288.53	1411.13	1469.89	1671.56	1961.41
10th	1318.89	1452.35	1592.71	1741.17	1812.24	2025.70	2227.26
Mean for income decile							
1st	769.92	813.42	914.51	1092.05	1202.35	1328.21	1479.65
2nd	775.27	811.86	904.37	1089.61	1196.18	1324.62	1469.38
3rd	801.89	845.03	919.55	1142.08	1204.20	1354.19	1554.65
4th	893.87	900.80	998.73	1143.46	1209.34	1339.76	1496.40
5th	893.27	936.89	1053.31	1213.94	1223.45	1396.84	1554.50
6th	864.00	985.55	1036.89	1190.44	1267.52	1357.13	1600.67
7th	938.17	965.35	1038.79	1154.09	1256.01	1508.23	1675.01
8th	995.95	1082.69	1206.18	1358.44	1334.80	1542.00	1691.04
9th	991.95	1057.43	1137.70	1294.87	1404.96	1499.98	1642.76
10th	1104.89	1161.45	1266.31	1376.32	1447.29	1624.24	1735.98
Mean for district type							
Below median ADM	972.32	1037.01	1139.90	1318.85	1383.61	1557.79	1753.22
Above median ADM	856.78	903.90	988.73	1131.45	1218.13	1345.30	1492.83
Below median % urban	908.03	961.66	1061.54	1234.69	1319.84	1456.46	1649.69
Above median % urban	897.81	950.43	1033.73	1176.37	1249.38	1398.59	1530.32
Below median % white	893.84	945.66	1039.80	1201.94	1286.74	1427.77	1589.94
Above median % white	912.00	966.44	1055.46	1209.13	1282.48	1427.27	1590.07
Below median % poverty	898.94	954.07	1047.20	1181.04	1258.33	1386.03	1543.13
Above median % poverty	906.90	958.02	1048.06	1230.03	1310.89	1469.01	1636.87
Correlation with							
ADM	-0.063	-0.048	-0.025	-0.068	-0.056	-0.059	-0.073
Adj. wealth	0.830	0.836	0.809	0.812	0.792	0.709	0.719
Income	0.430	0.426	0.408	0.329	0.350	0.326	0.273
% Urban	-0.113	-0.123	-0.163	-0.238	-0.286	-0.241	-0.339
% White	-0.187	-0.178	-0.194	-0.237	-0.216	-0.261	-0.185
% Poverty	-0.084	-0.094	-0.072	0.020	0.055	0.058	0.058
Adj. tax rate	-0.191	-0.219	-0.234	-0.046	-0.199	-0.163	-0.230
Gini by adj. wealth distribution	0.248	0.240	0.243	0.261	0.266	0.278	0.273
Gini by income distribution	0.208	0.210	0.214	0.232	0.235	0.239	0.247

TABLE 1  
DETERMINATION OF COEFFICIENTS OF VARIATION FOR THE  
VARIABLES IN THE 1970 CENSUS

Variable	Percentile	Percentile	Percentile	Weighted	Percentile	Percentile	Percentile
Percentile	Percentile	Percentile	Percentile	Percentile	Percentile	Percentile	Percentile
100th	671.11	761.61	841.58	1008.36	1093.64	1247.14	1364.31
90th	648.00	738.00	818.86	980.00	1064.00	1218.00	1334.00
80th	636.11	726.11	806.11	968.11	1052.11	1206.11	1322.11
70th	624.22	714.22	794.22	956.22	1040.22	1194.22	1310.22
60th	612.33	702.33	782.33	944.33	1028.33	1182.33	1298.33
50th	600.44	690.44	770.44	932.44	1016.44	1170.44	1286.44
40th	588.55	678.55	758.55	920.55	1004.55	1158.55	1274.55
30th	576.66	666.66	746.66	908.66	992.66	1146.66	1262.66
20th	564.77	654.77	734.77	896.77	980.77	1134.77	1250.77
10th	552.88	642.88	722.88	884.88	968.88	1122.88	1238.88
1st	540.99	630.99	710.99	872.99	956.99	1110.99	1226.99
Range	2080.00	2277.81	2475.60	2672.80	2869.60	3066.40	3263.20
Restricted range	498.70	578.51	658.32	738.13	817.94	897.75	977.56
Restricted range ratio	0.240	0.750	0.780	0.750	0.750	0.750	0.750
Mean deviation from median	91.33	112.24	133.15	154.06	174.97	195.88	216.79
Relative deviation from median	0.111	0.124	0.137	0.150	0.163	0.176	0.189
Mean	859.51	924.61	989.71	1054.81	1119.91	1185.01	1250.11
Standard deviation	165.486	180.446	195.406	210.366	225.326	240.286	255.246
Coefficient of variation	0.193	0.195	0.197	0.197	0.197	0.197	0.197
Mean deviation from mean	105.60	113.21	120.82	128.43	136.04	143.65	151.26
Relative deviation from mean	0.123	0.122	0.122	0.123	0.123	0.123	0.123
Gini coefficient	0.086	0.092	0.097	0.103	0.107	0.112	0.117
Regression results							
Adj. wealth: Linear F	426.337	539.487	652.637	765.787	878.937	992.087	1105.237
Elasticity	0.310	0.327	0.344	0.361	0.378	0.395	0.412
Quadratic F	212.275	272.069	331.863	391.657	451.451	511.245	571.039
Elasticity	0.309	0.346	0.383	0.420	0.457	0.494	0.531
Income: Linear F	257.087	187.881	118.675	49.469	15.263	1.057	0.511
Elasticity	0.275	0.254	0.233	0.212	0.191	0.170	0.149
Quadratic F	136.838	107.317	77.796	48.275	18.754	8.233	3.712
Elasticity	0.223	0.174	0.125	0.076	0.027	0.008	0.000
Adj. tax rate: Linear F	0.085	1.010	9.036	27.055	6.685	0.450	1.934
Elasticity	-0.022	-0.077	-0.206	0.339	0.172	-0.050	-0.095
Quadratic F	7.598	4.840	10.528	23.986	24.636	29.672	26.483
Elasticity	-0.123	-0.145	-0.288	0.299	0.212	0.075	0.076
Mean for adj. wealth decile							
1st	718.79	761.13	803.47	845.81	888.15	930.49	972.83
2nd	770.01	797.65	825.29	852.93	880.57	908.21	935.85
3rd	799.00	837.38	875.76	914.14	952.52	990.90	1029.28
4th	786.03	839.78	893.53	947.28	1001.03	1054.78	1108.53
5th	830.99	880.43	929.87	979.31	1028.75	1078.19	1127.63
6th	872.81	946.36	1019.91	1093.46	1167.01	1240.56	1314.11
7th	820.40	931.00	1041.60	1152.20	1262.80	1373.40	1484.00
8th	821.49	925.77	1029.05	1132.33	1235.61	1338.89	1442.17
9th	955.40	1048.16	1140.92	1233.68	1326.44	1419.20	1511.96
10th	1220.20	1278.40	1336.60	1394.80	1453.00	1511.20	1569.40
Mean for income decile							
1st	777.38	830.36	883.34	936.32	989.30	1042.28	1095.26
2nd	820.40	931.00	1041.60	1152.20	1262.80	1373.40	1484.00
3rd	812.64	931.00	1041.60	1152.20	1262.80	1373.40	1484.00
4th	766.80	796.03	825.29	854.55	883.81	913.07	942.33
5th	789.04	830.98	871.92	912.86	953.80	994.74	1035.68
6th	824.53	862.09	899.65	937.21	974.67	1012.13	1049.59
7th	820.66	899.66	976.66	1053.66	1130.66	1207.66	1284.66
8th	891.13	941.85	992.57	1043.29	1093.91	1144.53	1195.15
9th	912.45	977.31	1042.17	1107.03	1171.79	1236.55	1301.31
10th	1185.69	1251.01	1316.33	1381.65	1446.97	1512.29	1577.61
Mean for district type							
Below median ADM	859.02	907.48	955.94	1004.40	1052.86	1101.32	1149.78
Above median ADM	860.01	941.73	1023.45	1105.17	1186.89	1268.61	1350.33
Below median % urban	836.39	881.44	926.49	971.54	1016.59	1061.64	1106.69
Above median % urban	883.75	968.82	1053.89	1138.96	1224.03	1309.10	1394.17
Below median % white	876.20	955.56	1034.92	1114.28	1193.64	1272.99	1352.35
Above median % white	843.94	894.70	945.46	996.22	1046.98	1097.74	1148.50
Below median % poverty	853.37	906.93	960.49	1014.05	1067.61	1121.17	1174.73
Above median % poverty	866.77	943.33	1020.89	1098.45	1176.01	1253.57	1331.13
Correlation with							
ADM	-0.117	0.028	0.252	-0.055	0.079	0.022	0.024
Adj. wealth	0.801	0.832	0.863	0.777	0.765	0.760	0.772
Income	0.730	0.674	0.570	0.653	0.621	0.646	0.620
% Urban	0.025	0.064	0.125	0.032	0.053	0.061	0.005
% White	-0.209	-0.285	-0.398	-0.350	-0.418	-0.374	-0.359
% Poverty	-0.052	-0.027	0.043	0.053	0.110	0.074	0.090
Adj. tax rate	-0.019	-0.065	-0.190	0.313	0.163	-0.042	-0.087
Gini by adj. wealth distribution	0.180	0.166	0.164	0.176	0.179	0.189	0.187
Gini by income distribution	0.199	0.210	0.225	0.226	0.238	0.238	0.244



TABLE A-18  
DISTRIBUTION OF LOCAL - STATE - PLUS 74 REVENUE PER PERSON  
IN CALIFORNIA CENSUS DISTRICTS

Measure	1970-71	1971-72	1972-73	Unweighted 1973-74	1974-75	1975-76	1976-77
Percentile							
100th	2647.68	2765.06	2952.37	3111.75	3225.16	3352.49	3769.55
95th	1355.76	1545.21	1681.67	1880.86	1961.33	2201.48	2449.10
75th	1001.18	1077.38	1190.74	1353.34	1417.57	1558.38	1760.75
50th (median)	867.22	917.72	998.45	1153.40	1239.14	1364.44	1524.17
25th	784.12	825.86	891.45	1056.72	1133.96	1267.50	1417.70
5th	712.05	749.96	808.11	974.13	1077.55	1206.38	1326.00
1st	621.24	615.79	708.65	900.86	1000.43	630.65	1280.89
Range	2026.44	2149.21	2243.72	2409.89	1924.76	3221.84	2488.66
Restricted range	643.65	793.26	873.53	906.66	883.77	995.10	1123.10
Restricted range ratio	0.904	1.058	1.081	0.931	0.820	0.825	0.847
Mean deviation from median	148.99	171.24	193.97	193.76	189.65	210.35	242.57
Relative deviation from median	0.172	0.187	0.194	0.168	0.153	0.154	0.159
Mean	932.28	991.82	1085.89	1247.05	1326.18	1473.61	1659.87
Standard deviation	238.008	263.861	298.496	301.336	286.526	345.097	388.524
Coefficient of variation	0.255	0.266	0.275	0.242	0.216	0.234	0.234
Mean deviation from mean	158.91	182.45	206.52	210.27	204.73	229.40	271.54
Relative deviation from mean	0.170	0.184	0.190	0.169	0.154	0.156	0.164
Gini coefficient	0.118	0.127	0.131	0.115	0.105	0.107	0.110
Regression results							
Adj. wealth: Linear F	507.773	538.247	421.994	454.842	324.610	229.235	194.357
Elasticity	0.293	0.312	0.308	0.264	0.236	0.221	0.211
Quadratic F	258.739	268.149	211.055	227.160	161.787	114.285	97.744
Elasticity	0.267	0.308	0.322	0.254	0.231	0.227	0.230
Income: Linear F	47.914	47.898	39.973	26.398	29.245	26.336	14.252
Elasticity	0.203	0.212	0.201	0.141	0.130	0.131	0.094
Quadratic F	24.139	24.653	20.481	13.368	14.588	13.113	7.146
Elasticity	0.224	0.248	0.235	0.160	0.124	0.132	0.086
Adj. tax rate: Linear F	13.640	17.749	18.237	2.119	12.133	8.125	17.998
Elasticity	-0.254	-0.295	-0.309	-0.101	-0.212	-0.191	-0.284
Quadratic F	15.229	22.629	17.727	17.720	33.133	11.347	18.968
Elasticity	-0.266	-0.324	-0.324	-0.133	-0.205	-0.113	-0.162
Mean for adj. wealth decile							
1st	754.47	804.92	878.25	1029.83	1153.32	1278.89	1440.01
2nd	793.08	820.29	890.73	1085.28	1172.99	1282.37	1465.79
3rd	794.98	842.59	933.66	1077.75	1153.45	1283.10	1505.10
4th	830.87	885.52	919.24	1108.57	1224.81	1399.82	1456.30
5th	860.97	873.93	1010.79	1175.41	1237.69	1367.95	1549.65
6th	872.61	947.81	1013.62	1150.37	1239.11	1388.30	1587.77
7th	937.39	999.61	1114.13	1252.94	1268.87	1431.33	1612.27
8th	1028.20	1078.56	1165.48	1397.48	1487.35	1570.57	1730.84
9th	1121.56	1195.55	1307.05	1433.94	1494.79	1695.99	2000.61
10th	1328.71	1469.45	1625.95	1758.93	1829.44	2037.79	2250.33
Mean for income decile							
1st	815.15	864.86	952.10	1114.74	1228.95	1353.45	1520.49
2nd	802.34	833.87	957.90	1143.38	1220.09	1348.05	1477.76
3rd	811.79	865.57	934.94	1163.76	1258.11	1361.62	1596.32
4th	905.11	912.60	1006.36	1153.20	1223.41	1383.11	1622.75
5th	904.56	951.00	1066.98	1228.19	1239.32	1411.95	1569.09
6th	876.42	997.24	1049.56	1208.66	1286.71	1369.07	1616.64
7th	954.05	988.66	1062.85	1176.29	1384.71	1536.01	1697.42
8th	1005.35	1095.61	1217.12	1370.69	1345.30	1555.25	1722.76
9th	1005.16	1070.82	1153.74	1317.95	1425.20	1517.68	1666.25
10th	1117.91	1185.24	1284.70	1390.02	1469.40	1640.67	1760.42
Mean for district type							
Below median ADM	992.69	1062.10	1167.12	1344.94	1413.14	1584.41	1805.55
Above median ADM	871.88	921.55	1004.66	1149.16	1239.23	1362.81	1514.19
Below median % urban	923.48	980.81	1083.44	1255.74	1344.30	1477.48	1689.06
Above median % urban	916.09	972.29	1053.81	1197.63	1271.94	1417.89	1560.92
Below median % white	920.61	976.89	1073.25	1234.62	1323.31	1460.30	1649.37
Above median % white	918.95	976.21	1063.99	1218.76	1292.92	1435.07	1600.61
Below median % poverty	915.42	971.98	1068.69	1200.25	1279.73	1404.25	1578.29
Above median % poverty	924.14	981.12	1068.56	1253.13	1336.50	1491.12	1671.69
Correlation with							
ADM	-0.067	-0.054	-0.031	-0.073	-0.062	-0.065	-0.083
Adj. wealth	0.825	0.832	0.797	0.804	0.754	0.690	0.657
Income	0.419	0.418	0.385	0.317	0.335	0.317	0.239
% Urban	-0.108	-0.124	-0.162	-0.240	-0.286	-0.245	-0.332
% White	-0.236	-0.224	-0.227	-0.279	-0.262	-0.301	-0.253
% Poverty	-0.078	-0.076	-0.056	0.043	0.078	0.080	0.081
Adj. tax rate	-0.233	-0.262	-0.265	-0.092	-0.217	-0.177	-0.256
Gini by adj. wealth distribution	0.253	0.245	0.247	0.264	0.271	0.282	0.279
Gini by income distribution	0.211	0.212	0.217	0.233	0.237	0.240	0.251

TABLE 1. Income, wealth, and consumption inequality in the United States, 1992-2001  
 (All figures are in 1992 dollars, unless otherwise noted)

Variable	1992-1993	1994-1995	1996-1997	1998-1999	2000-2001	1992-1993	1994-1995
Income							
1st	1,061.19	1,186.19	1,294.11	1,416.11	1,541.11	1,061.19	1,186.19
2nd	905.41	969.41	1,041.41	1,116.41	1,191.41	905.41	969.41
3rd	805.41	869.41	941.41	1,016.41	1,091.41	805.41	869.41
4th	705.41	769.41	841.41	916.41	991.41	705.41	769.41
5th	605.41	669.41	741.41	816.41	891.41	605.41	669.41
6th	505.41	569.41	641.41	716.41	791.41	505.41	569.41
7th	405.41	469.41	541.41	616.41	691.41	405.41	469.41
8th	305.41	369.41	441.41	516.41	591.41	305.41	369.41
9th	205.41	269.41	341.41	416.41	491.41	205.41	269.41
10th	105.41	169.41	241.41	316.41	391.41	105.41	169.41
Mean	1,061.19	1,186.19	1,294.11	1,416.11	1,541.11	1,061.19	1,186.19
Standard deviation	1,061.19	1,186.19	1,294.11	1,416.11	1,541.11	1,061.19	1,186.19
Coefficient of variation	0.187	0.189	0.182	0.181	0.149	0.187	0.189
Mean deviation from mean	106.119	118.619	129.411	141.611	154.111	106.119	118.619
Relative deviation from mean	0.119	0.116	0.136	0.101	0.094	0.119	0.116
Gini coefficient	0.084	0.088	0.094	0.075	0.070	0.084	0.088
Regression results							
Adj. wealth: Linear F	374.927	500.455	428.715	358.115	302.970	320.080	286.415
Elasticity	0.294	0.313	0.298	0.253	0.226	0.218	0.206
Quadratic F	187.100	250.092	222.176	178.503	152.720	159.776	142.668
Elasticity	0.287	0.323	0.330	0.257	0.242	0.211	0.204
Income: Linear F	274.215	212.950	117.098	192.562	155.821	179.968	141.223
Elasticity	0.272	0.253	0.202	0.198	0.170	0.175	0.147
Quadratic F	144.644	119.307	70.892	106.358	95.097	111.055	83.663
Elasticity	0.224	0.182	0.118	0.141	0.098	0.100	0.088
Adj. tax rate: Linear F	0.588	2.609	12.057	18.826	3.297	1.171	3.906
Elasticity	-0.055	-0.119	-0.231	0.282	0.121	-0.080	-0.138
Quadratic F	9.936	7.642	13.578	24.699	27.522	32.711	34.016
Elasticity	-0.165	-0.198	-0.319	0.233	0.164	0.048	0.052
Mean for adj. wealth decile							
1st	750.55	788.73	873.60	1032.26	1124.65	1271.57	1400.56
2nd	791.61	829.16	889.46	1072.17	1153.08	1269.77	1419.61
3rd	810.74	855.62	944.88	1076.33	1161.50	1274.28	1444.47
4th	800.23	856.22	937.97	1098.38	1172.24	1328.15	1478.34
5th	856.92	904.54	982.72	1156.98	1244.20	1389.09	1516.58
6th	881.57	952.69	1105.34	1134.17	1273.52	1384.88	1535.40
7th	826.99	937.02	1130.59	1134.17	1290.96	1373.59	1559.97
8th	827.76	933.41	1083.84	1173.61	1245.90	1428.07	1641.49
9th	968.12	1063.97	1211.52	1294.78	1365.05	1417.27	1512.75
10th	1229.42	1289.61	1364.28	1516.10	1600.26	1796.43	1955.97
Mean for income decile							
1st	794.08	848.30	926.03	1072.77	1145.78	1266.48	1401.86
2nd	826.99	937.02	1130.59	1134.17	1273.93	1375.89	1528.00
3rd	822.68	937.02	1130.59	1134.17	1273.52	1384.88	1535.40
4th	784.14	818.99	940.33	1084.11	1190.25	1319.97	1485.45
5th	805.20	846.22	930.30	1085.61	1165.34	1331.07	1502.10
6th	840.58	878.32	964.17	1119.19	1198.79	1311.80	1459.63
7th	836.17	916.58	991.21	1145.55	1214.95	1352.16	1501.95
8th	903.17	956.59	1040.45	1187.10	1255.35	1373.41	1549.66
9th	938.33	1010.41	1094.74	1272.52	1357.33	1491.35	1653.04
10th	1198.91	1267.45	1383.99	1452.12	1557.80	1724.40	1841.48
Mean for district type							
Below median ADM	875.96	927.16	1008.57	1155.90	1240.04	1368.20	1526.20
Above median ADM	872.82	955.03	1096.27	1181.89	1286.22	1418.42	1566.82
Below median % urban	857.48	906.00	997.56	1138.99	1225.85	1354.30	1516.79
Above median % urban	892.56	977.37	1108.92	1198.49	1300.75	1431.98	1574.93
Below median % white	895.57	977.23	1122.18	1207.45	1316.22	1448.32	1599.91
Above median % white	854.48	906.15	984.30	1130.03	1210.39	1337.96	1491.80
Below median % poverty	868.72	923.39	1014.92	1148.07	1225.55	1356.39	1507.26
Above median % poverty	881.32	959.98	1091.56	1189.41	1301.06	1429.89	1584.45
Correlation with							
ADM	-0.143	-0.001	0.229	-0.085	0.044	-0.004	-0.010
Adj. wealth	0.782	0.822	0.799	0.768	0.743	0.748	0.727
Income	0.741	0.697	0.581	0.670	0.634	0.658	0.612
% Urban	0.018	0.055	0.112	0.023	0.040	0.050	-0.016
% White	-0.213	-0.289	-0.399	-0.353	-0.415	-0.374	-0.350
% Poverty	-0.048	-0.020	0.051	0.063	0.121	0.084	0.098
Adj. tax rate	-0.050	-0.104	-0.218	0.265	0.115	-0.068	-0.123
Gini by adj. wealth distribution	0.184	0.171	0.166	0.178	0.181	0.191	0.189
Gini by income distribution	0.198	0.207	0.224	0.224	0.236	0.237	0.243

Table A.19  
DISTRIBUTION OF TOTAL REVENUE PER PUPIL  
IN CALIFORNIA UNIFIED DISTRICTS

Measure	1970-71	1971-72	1972-73	Unweighted 1973-74	1974-75	1975-76	1976-77
Percentile							
100th	2766.87	2948.36	3091.66	3525.23	2950.93	3957.45	3962.10
95th	1448.27	1610.70	1780.13	1959.54	2141.25	2356.15	2702.04
75th	1075.82	1153.27	1270.97	1440.67	1503.24	1651.62	1901.19
50th (median)	915.94	985.64	1071.53	1234.92	1312.83	1475.36	1625.49
25th	833.59	882.35	956.05	1108.28	1212.44	1347.71	1517.49
5th	763.48	801.39	872.48	1029.74	1131.70	1258.80	1400.95
1st	715.77	742.58	784.98	968.93	1063.39	710.85	1317.90
Range	2045.10	2203.79	2306.68	2454.30	1887.74	3246.60	2644.20
Restricted range	684.79	809.31	907.65	929.80	1009.55	1097.35	1301.08
Restricted range ratio	0.897	1.010	1.040	0.903	0.892	0.872	0.929
Mean deviation from median	157.89	179.50	210.43	216.87	214.49	232.75	284.17
Relative deviation from median	0.172	0.182	0.196	0.176	0.163	0.158	0.175
Mean	989.08	1059.74	1167.10	1329.88	1421.08	1579.53	1789.42
Standard deviation	252.034	283.819	331.615	337.235	317.627	367.911	452.578
Coefficient of variation	0.255	0.268	0.284	0.254	0.224	0.233	0.253
Mean deviation from mean	168.34	192.01	224.43	234.11	231.83	252.30	318.27
Relative deviation from mean	0.170	0.181	0.192	0.176	0.163	0.160	0.178
Gini coefficient	0.118	0.125	0.133	0.120	0.111	0.110	0.120
Regression results							
Adj. wealth: Linear F	638.617	622.763	564.508	528.488	275.514	237.286	240.799
Elasticity	0.303	0.321	0.335	0.284	0.235	0.222	0.242
Quadratic F	336.890	323.604	290.636	268.893	137.352	118.256	119.989
Elasticity	0.263	0.284	0.299	0.257	0.241	0.217	0.237
Income: Linear F	35.004	35.735	30.302	18.160	17.807	17.861	8.169
Elasticity	0.170	0.180	0.173	0.117	0.108	0.110	0.074
Quadratic F	17.488	18.203	15.399	9.118	8.941	8.914	4.156
Elasticity	0.180	0.207	0.197	0.128	0.097	0.104	0.062
Adj. tax rate: Linear F	26.668	24.779	30.585	9.032	17.173	11.061	37.496
Elasticity	-0.346	-0.346	-0.404	-0.215	-0.259	-0.220	-0.428
Quadratic F	34.895	34.872	41.409	32.192	36.403	15.768	44.926
Elasticity	-0.363	-0.382	-0.429	-0.257	-0.252	-0.130	-0.238
Mean for adj. wealth decile							
1st	800.39	875.36	943.33	1094.32	1237.01	1366.72	1549.01
2nd	848.95	868.37	958.19	1154.84	1242.49	1384.76	1571.78
3rd	838.97	910.31	1022.93	1158.51	1252.87	1399.73	1629.33
4th	893.25	958.60	983.58	1172.00	1304.24	1494.10	1555.01
5th	905.45	926.75	1065.71	1230.95	1303.52	1458.11	1653.84
6th	919.32	1014.25	1070.18	1207.06	1315.48	1483.80	1670.96
7th	983.23	1055.17	1208.02	1336.12	1378.06	1547.56	1729.96
8th	1090.72	1145.19	1253.94	1495.97	1607.61	1664.39	1865.78
9th	1197.94	1277.17	1396.98	1519.95	1578.98	1819.45	2141.40
10th	1412.61	1566.26	1768.16	1929.06	1990.48	2176.66	2527.15
Mean for income decile							
1st	893.59	954.54	1051.68	1218.11	1343.72	1493.55	1669.51
2nd	862.39	914.79	1048.42	1224.37	1331.58	1455.29	1579.56
3rd	864.70	928.45	999.61	1251.86	1346.14	1466.28	1733.41
4th	959.32	970.69	1082.50	1212.63	1309.15	1482.77	1747.18
5th	955.52	1015.11	1134.15	1311.34	1359.64	1518.12	1667.74
6th	933.25	1065.44	1132.92	1286.16	1357.82	1457.56	1725.32
7th	1008.20	1027.49	1119.57	1225.44	1453.78	1609.77	1791.69
8th	1044.77	1162.51	1295.42	1467.60	1466.97	1689.34	1878.87
9th	1039.79	1131.39	1214.19	1379.82	1500.03	1606.96	1755.30
10th	1149.85	1230.80	1343.56	1441.91	1534.76	1712.74	1838.24
Mean for district type							
Below median ADM	1064.91	1143.73	1267.81	1451.04	1527.34	1708.02	1971.44
Above median ADM	913.25	975.76	1066.40	1208.71	1314.82	1451.04	1607.41
Below median % urban	983.00	1050.00	1163.91	1345.47	1454.92	1595.03	1825.74
Above median % urban	959.27	1030.24	1120.49	1258.38	1345.80	1503.44	1651.63
Below median % white	981.46	1051.04	1161.65	1325.78	1437.20	1581.57	1784.80
Above median % white	960.82	1029.20	1122.75	1278.07	1363.52	1516.90	1692.57
Below median % poverty	949.62	1015.98	1121.74	1253.90	1344.07	1474.97	1659.32
Above median % poverty	992.66	1064.26	1162.67	1349.95	1456.65	1623.51	1818.05
Correlation with							
ADM	-0.064	-0.047	-0.027	-0.069	-0.052	-0.059	-0.080
Adj. wealth	0.854	0.850	0.837	0.824	0.727	0.696	0.696
Income	0.367	0.370	0.341	0.267	0.267	0.265	0.183
% Urban	-0.156	-0.158	-0.195	-0.293	-0.339	-0.288	-0.387
% White	-0.306	-0.311	-0.313	-0.350	-0.340	-0.365	-0.317
% Poverty	0.024	0.034	0.042	0.152	0.192	0.186	0.185
Adj. tax rate	-0.317	-0.306	-0.335	-0.187	-0.255	-0.205	-0.357
Gini by adj. wealth distribution	0.252	0.246	0.244	0.260	0.272	0.284	0.275
Gini by income distribution	0.218	0.218	0.223	0.240	0.245	0.246	0.258

TABLE A-19  
DISTRIBUTION OF TOTAL REVENUE PER PERSON  
IN CALIFORNIA COUNTY DISTRICTS (continued)

Measure	1970-71	1971-72	1972-73	Weighted 1970-72	1974-75	1975-76	1976-77
Percentile							
100th	2961.87	2946.36	3091.66	3422.77	2950.94	3957.43	3962.10
95th	1671.52	1396.34	1631.68	1691.74	1761.79	1916.03	2060.94
75th	936.53	1034.79	1252.67	1251.77	1422.30	1538.97	1691.72
50th (median)	907.21	988.07	1082.00	1231.62	1357.73	1491.56	1648.28
25th	635.17	892.93	982.91	1119.04	1214.10	1345.84	1505.12
5th	752.42	803.59	869.26	1029.74	1130.05	1276.79	1406.91
1st	715.77	742.58	784.95	968.93	1063.19	710.85	1317.90
Range	2045.10	2203.79	2306.68	2454.30	1887.74	3246.60	2644.20
Restricted range	519.50	592.75	662.43	662.00	631.74	639.24	656.03
Restricted range ratio	0.690	0.738	0.762	0.643	0.559	0.501	0.467
Mean deviation from median	98.79	122.74	163.82	126.63	150.86	148.78	154.41
Relative deviation from median	0.109	0.124	0.151	0.102	0.111	0.100	0.094
Mean	930.94	1011.87	1135.17	1246.76	1362.41	1502.01	1660.69
Standard deviation	178.212	196.189	220.202	239.874	217.883	234.564	237.166
Coefficient of variation	0.191	0.194	0.194	0.168	0.160	0.156	0.143
Mean deviation from mean	109.35	123.38	167.58	127.57	150.94	149.17	154.55
Relative deviation from mean	0.117	0.122	0.148	0.102	0.111	0.099	0.093
Gini coefficient	0.085	0.091	0.100	0.078	0.078	0.073	0.069
Regression results							
Adj. wealth: Linear F	351.331	391.641	301.000	288.736	219.949	224.049	204.030
Elasticity	0.297	0.308	0.296	0.252	0.225	0.209	0.198
Quadratic F	174.936	196.276	156.948	144.209	112.568	111.602	101.666
Elasticity	0.298	0.321	0.333	0.260	0.251	0.207	0.195
Income: Linear F	202.551	153.755	81.338	133.568	97.649	119.180	96.231
Elasticity	0.258	0.238	0.189	0.186	0.158	0.162	0.135
Quadratic F	111.976	91.068	52.506	77.620	64.028	77.691	61.590
Elasticity	0.192	0.150	0.092	0.114	0.072	0.076	0.065
Adj. tax rate: Linear F	0.809	1.624	9.217	15.813	6.223	0.263	1.755
Elasticity	-0.066	-0.097	-0.216	0.271	0.177	-0.040	-0.097
Quadratic F	9.874	7.262	12.987	19.843	27.331	25.872	30.308
Elasticity	-0.178	-0.178	-0.315	0.225	0.223	0.082	0.097
Mean for adj. wealth decile							
1st	795.24	849.32	939.28	1099.59	1202.26	1359.72	1522.90
2nd	838.98	873.21	942.19	1130.77	1226.88	1358.85	1507.54
3rd	852.81	928.00	1016.60	1143.46	1245.57	1373.35	1542.12
4th	845.15	912.83	1003.35	1167.98	1254.48	1421.00	1582.68
5th	898.76	969.84	1056.43	1211.66	1348.30	1521.67	1622.27
6th	937.52	1028.14	1194.09	1245.63	1422.30	1538.97	1691.71
7th	907.21	1033.79	1252.67	1245.63	1413.39	1476.07	1703.10
8th	901.62	1005.88	1174.45	1232.25	1312.47	1536.15	1769.48
9th	1030.21	1153.34	1324.26	1391.38	1496.61	1525.87	1584.74
10th	1301.91	1364.36	1448.37	1599.25	1701.86	1908.47	2080.37
Mean for income decile							
1st	865.56	926.69	1006.37	1151.57	1236.15	1368.10	1505.95
2nd	907.21	1033.79	1252.67	1245.58	1419.39	1522.84	1690.71
3rd	898.52	1033.79	1252.67	1245.63	1422.30	1538.97	1691.71
4th	827.30	878.86	1010.16	1152.66	1280.92	1437.23	1608.00
5th	849.01	904.90	991.88	1147.75	1246.58	1409.62	1585.37
6th	889.97	937.81	1031.95	1175.42	1264.90	1388.25	1543.21
7th	873.37	965.16	1046.81	1204.88	1297.06	1440.48	1598.46
8th	940.55	1008.22	1102.28	1258.15	1348.20	1472.47	1656.07
9th	998.68	1088.51	1185.31	1348.48	1453.97	1616.35	1773.30
10th	1265.87	1347.96	1480.68	1538.24	1667.38	1833.56	1956.31
Mean for district type							
Below median ADM	916.26	980.08	1070.77	1213.62	1315.60	1455.40	1619.47
Above median ADM	945.62	1043.66	1199.56	1279.90	1409.23	1548.63	1701.92
Below median % urban	903.35	963.15	1061.17	1201.17	1304.80	1442.84	1608.87
Above median % urban	959.85	1061.99	1210.98	1292.50	1422.57	1562.73	1712.95
Below median % white	975.07	1075.11	1237.92	1315.50	1454.68	1595.97	1751.07
Above median % white	888.14	950.03	1034.23	1178.17	1272.68	1409.60	1570.75
Below median % poverty	900.02	965.48	1062.77	1195.50	1288.02	1426.20	1584.06
Above median % poverty	963.19	1059.65	1209.38	1298.17	1439.35	1579.37	1737.76
Correlation with							
ADM	-0.055	0.075	0.298	0.011	0.162	0.103	0.088
Adj. wealth	0.772	0.787	0.745	0.733	0.687	0.686	0.666
Income	0.688	0.636	0.511	0.601	0.544	0.579	0.538
% Urban	0.022	0.068	0.122	0.031	0.055	0.065	-0.002
% White	-0.355	-0.436	-0.537	-0.500	-0.567	-0.516	-0.513
% Poverty	0.105	0.140	0.204	0.215	0.283	0.249	0.269
Adj. tax rate	-0.058	-0.082	-0.192	0.244	0.157	-0.032	-0.083
Gini by adj. wealth distribution	0.183	0.172	0.170	0.179	0.183	0.195	0.193
Gini by income distribution	0.205	0.214	0.231	0.230	0.243	0.243	0.249

TABLE A-10  
DISTRIBUTION OF INSTANTANEOUS EXpendITURES PER FAMIL  
IN CALIFORNIA UNDER DISTRICTS

Person	1970-71	1971-72	1972-73	1973-74	1974-75	1975-76	1976-77
Percentile							
100th	1687.68	1689.01	1739.80	1926.44	1536.14	1714.89	1721.96
95th	862.01	962.43	1049.85	1094.15	1154.82	1169.87	1281.57
75th	609.55	724.74	766.76	849.49	815.42	861.35	943.86
50th (median)	602.98	641.90	683.02	762.66	716.67	768.82	845.95
25th	556.14	588.57	623.74	701.42	643.04	698.89	773.44
5th	507.66	531.39	558.38	637.73	587.40	632.49	694.81
1st	449.21	487.54	535.77	597.44	505.56	541.27	606.82
Range	1234.47	1200.49	1242.69	1328.99	1024.57	1174.63	1081.13
Restricted range	354.45	429.04	481.47	416.41	568.41	533.39	586.76
Restricted range ratio	0.698	0.804	0.862	0.653	0.974	0.843	0.845
Mean deviation from median	84.73	93.32	102.55	100.31	120.77	118.84	126.83
Relative deviation from median	0.141	0.145	0.150	0.132	0.169	0.155	0.150
Mean	635.67	678.09	720.80	799.21	759.19	812.25	890.16
Standard deviation	142.859	148.966	164.266	157.383	173.312	176.383	186.248
Coefficient of variation	0.225	0.220	0.228	0.197	0.228	0.217	0.209
Mean deviation from mean	90.40	98.45	108.50	104.81	126.61	126.01	133.03
Relative deviation from mean	0.142	0.145	0.151	0.131	0.167	0.155	0.149
Gini coefficient	0.101	0.103	0.107	0.093	0.116	0.109	0.106
Regression results							
Adj. wealth: Linear F	256.635	202.915	186.019	165.891	216.531	195.254	183.055
Elasticity	0.225	0.210	0.211	0.169	0.224	0.196	0.186
Quadratic F	141.378	102.236	93.196	82.614	105.301	98.382	97.794
Elasticity	0.173	0.192	0.198	0.170	0.236	0.215	0.229
Income: Linear F	65.345	67.149	58.351	44.704	38.241	39.651	35.647
Elasticity	0.200	0.201	0.192	0.147	0.157	0.144	0.126
Quadratic F	32.528	33.595	29.310	22.302	19.220	19.865	17.793
Elasticity	0.201	0.214	0.209	0.154	0.172	0.156	0.133
Adj. tax rate: Linear F	5.148	7.291	6.830	0.000	13.561	16.976	28.732
Elasticity	-0.140	-0.159	-0.160	0.000	-0.237	-0.251	-0.314
Quadratic F	12.594	16.612	14.165	17.816	26.144	20.013	32.902
Elasticity	-0.152	-0.184	-0.175	-0.027	-0.230	-0.165	-0.175
Mean for adj. wealth decile							
1st	549.43	597.63	626.64	702.32	652.31	694.44	717.67
2nd	579.01	601.13	631.79	727.63	657.14	720.54	778.02
3rd	568.16	605.11	661.73	732.93	661.85	708.32	801.96
4th	581.91	638.31	635.46	729.93	678.94	738.49	794.65
5th	591.25	612.89	681.97	758.81	700.25	762.00	831.34
6th	598.44	664.04	696.55	752.19	751.76	787.06	871.64
7th	631.13	674.42	755.15	821.24	751.30	847.14	905.41
8th	694.15	735.05	759.79	876.23	859.30	869.85	910.92
9th	730.45	755.80	801.24	864.55	864.52	928.92	1055.28
10th	832.72	896.50	957.69	1026.23	1014.51	1065.73	1174.74
Mean for income decile							
1st	565.63	606.39	643.85	730.15	654.36	713.99	789.37
2nd	565.37	594.37	654.28	737.45	701.04	746.17	788.52
3rd	560.24	617.59	643.76	739.20	722.39	724.54	821.34
4th	596.09	617.09	665.37	730.50	709.46	784.24	852.06
5th	617.04	642.15	678.67	778.46	719.17	789.23	854.85
6th	611.44	680.54	718.36	798.05	732.67	758.95	866.57
7th	634.36	648.38	685.01	769.14	793.79	874.93	938.78
8th	694.09	757.58	798.60	875.64	787.86	851.27	930.63
9th	674.90	708.64	749.80	830.33	808.17	833.91	892.63
10th	759.16	818.10	861.53	911.90	866.84	909.62	980.52
Mean for district type							
Below median ADM	652.25	699.37	745.83	828.25	808.30	867.89	950.33
Above median ADM	619.08	656.80	695.77	770.16	710.07	756.60	830.00
Below median % urban	607.47	649.44	692.40	777.57	762.84	806.77	879.59
Above median % urban	648.20	688.73	727.45	802.59	736.31	790.60	863.47
Below median % white	639.66	684.21	728.17	810.88	754.67	808.08	879.60
Above median % white	616.01	653.95	691.67	769.28	744.48	789.29	863.46
Below median % poverty	632.00	669.59	708.54	784.33	739.05	792.05	873.08
Above median % poverty	623.67	668.58	711.30	795.84	760.10	805.32	869.97
Correlation with							
ADM	-0.015	-0.024	-0.016	-0.013	-0.072	-0.087	-0.086
Adj. wealth	0.720	0.677	0.659	0.632	0.679	0.661	0.646
Income	0.474	0.479	0.450	0.399	0.376	0.379	0.362
% Urban	0.081	0.065	0.037	-0.023	-0.234	-0.199	-0.203
% White	-0.341	-0.345	-0.364	-0.403	-0.214	-0.214	-0.179
% Poverty	-0.103	-0.093	-0.058	0.003	0.007	-0.039	-0.079
Adj. tax rate	-0.146	-0.172	-0.166	0.000	-0.229	-0.251	-0.318
Gini by adj. wealth distribution	0.281	0.282	0.282	0.295	0.288	0.288	0.284
Gini by income distribution	0.204	0.205	0.208	0.223	0.232	0.233	0.238

TABLE A.20  
DISTRIBUTION OF INSTRUCTIONAL EXPENDITURES PER PUPIL  
IN CALIFORNIA UNIFIED DISTRICTS (continued)

Measure	1970-71	1971-72	1972-73	Weighted 1973-74	1974-75	1975-76	1976-77
Percentile							
100th	1683.68	1688.02	1778.46	1926.43	1540.13	1715.89	1727.96
95th	785.80	845.98	886.01	962.28	937.56	975.47	1040.58
75th	644.50	705.73	748.56	801.86	742.47	787.27	869.20
50th (median)	604.59	631.14	696.88	781.58	689.16	718.82	794.86
25th	572.71	604.14	643.84	713.30	651.34	699.81	787.17
5th	515.32	536.81	579.09	652.44	592.76	635.88	695.56
1st	449.21	487.54	535.77	597.44	505.56	541.27	646.82
Range	1234.47	1200.49	1242.69	1328.99	1024.57	1174.63	1081.13
Restricted range	270.48	309.17	306.92	309.85	344.81	339.59	345.02
Restricted range ratio	0.525	0.576	0.530	0.475	0.582	0.534	0.496
Mean deviation from median	58.49	67.72	72.84	75.10	72.82	69.77	68.90
Relative deviation from median	0.097	0.107	0.105	0.096	0.106	0.097	0.087
Mean	627.68	665.29	711.59	791.82	715.30	757.54	833.49
Standard deviation	106.022	114.301	125.628	130.977	126.068	119.081	113.430
Coefficient of variation	0.169	0.172	0.177	0.165	0.176	0.157	0.136
Mean deviation from mean	65.69	75.46	78.02	79.10	81.72	78.13	75.41
Relative deviation from mean	0.105	0.113	0.110	0.100	0.114	0.103	0.090
Gini coefficient	0.075	0.080	0.081	0.075	0.081	0.073	0.065
Regression results							
Adj. wealth: Linear F	201.620	203.813	195.503	204.314	185.174	234.212	173.066
Elasticity	0.230	0.235	0.242	0.227	0.237	0.213	0.180
Quadratic F	100.566	101.482	98.175	103.924	92.644	116.710	86.197
Elasticity	0.224	0.235	0.256	0.249	0.248	0.217	0.179
Income: Linear F	222.352	248.742	187.072	173.449	145.880	155.032	134.898
Elasticity	0.233	0.240	0.226	0.198	0.199	0.177	0.145
Quadratic F	119.887	128.328	98.306	98.873	81.512	87.161	71.427
Elasticity	0.183	0.204	0.182	0.131	0.135	0.118	0.110
Adj. tax rate: Linear F	0.411	0.085	0.119	17.769	0.991	3.658	6.240
Elasticity	0.042	0.020	-0.023	0.281	0.079	-0.148	-0.173
Quadratic F	7.397	7.163	7.888	19.071	21.139	39.173	28.267
Elasticity	-0.045	-0.056	-0.113	0.240	0.126	-0.007	-0.003
Mean for adj. wealth decile							
1st	557.34	582.89	623.52	707.23	640.67	678.60	764.64
2nd	584.77	601.79	630.06	722.35	653.66	702.18	778.56
3rd	589.02	655.81	681.50	742.13	681.11	725.24	810.69
4th	578.46	612.03	655.13	758.75	672.19	739.23	826.17
5th	624.86	677.55	714.89	767.28	699.70	722.79	828.43
6th	628.28	651.55	712.46	781.58	689.16	718.82	794.86
7th	604.59	631.14	696.88	781.58	711.22	757.06	806.00
8th	607.05	641.92	689.91	790.04	701.92	767.55	831.09
9th	672.36	743.92	807.08	867.41	777.94	775.82	849.87
10th	830.04	854.30	904.47	999.87	925.45	988.06	1044.60
Mean for income decile							
1st	584.98	601.36	636.75	716.71	655.37	690.35	764.28
2nd	604.59	631.14	696.88	781.58	687.92	717.74	785.63
3rd	600.46	631.14	696.88	781.58	689.16	718.82	794.86
4th	552.67	590.10	645.71	727.73	678.04	709.95	786.82
5th	578.11	613.95	639.46	720.39	655.43	730.51	824.18
6th	615.46	651.07	684.48	773.53	709.23	758.28	828.06
7th	603.89	659.30	702.19	786.69	701.82	787.12	884.86
8th	643.50	685.08	728.34	811.01	709.14	744.60	823.98
9th	675.88	724.61	762.10	833.91	765.69	791.69	847.99
10th	821.56	868.03	925.62	989.61	904.93	925.92	994.79
Mean for district type							
Below median ADM	614.69	653.87	693.12	765.86	709.70	761.25	830.78
Above median ADM	640.67	676.72	730.06	817.78	720.90	753.83	836.20
Below median % urban	616.45	657.50	695.94	771.88	709.05	761.20	844.13
Above median % urban	639.77	673.66	727.74	812.67	722.29	753.80	822.96
Below median % white	652.01	691.22	745.75	831.23	730.59	759.43	830.23
Above median % white	604.21	639.94	677.93	753.31	700.75	755.57	836.86
Below median % poverty	615.63	653.85	693.15	769.20	706.69	758.08	844.64
Above median % poverty	640.59	677.31	730.53	815.34	724.65	756.92	822.45
Correlation with							
ADM	-0.091	-0.133	-0.038	-0.020	-0.101	-0.166	-0.171
Adj. wealth	0.677	0.678	0.668	0.671	0.655	0.694	0.635
Income	0.705	0.724	0.670	0.651	0.621	0.630	0.603
% Urban	0.146	0.133	0.152	0.154	0.019	-0.017	0.010
% White	-0.334	-0.311	-0.363	-0.437	-0.252	-0.125	-0.068
% Poverty	0.041	0.053	0.085	0.133	0.009	-0.070	-0.139
Adj. tax rate	0.042	0.019	-0.022	0.258	0.063	-0.120	-0.154
Gini by adj. wealth distribution	0.199	0.194	0.187	0.184	0.187	0.194	0.197
Gini by income distribution	0.205	0.204	0.213	0.226	0.233	0.237	0.243

Table A-21  
DISTRIBUTION OF LOCAL ADJUSTED TAX RATES  
IN CALIFORNIA UNITED DISTRICTS

Measure	1970-71	1971-72	1972-73	Unweighted 1973-74	1974-75	1975-76	1976-77
Percentile							
100th	18.21	18.45	19.56	17.09	17.46	17.18	16.23
95th	14.12	14.68	15.10	14.48	14.48	14.40	14.07
75th	11.91	12.20	12.75	11.62	11.60	12.27	12.06
50th (median)	10.33	10.65	10.94	10.32	10.56	11.17	10.99
25th	8.64	8.89	9.17	8.94	9.09	9.68	9.63
5th	6.30	6.53	6.62	6.44	6.27	6.30	6.10
1st	2.71	4.13	2.88	3.58	4.45	1.95	2.05
Range	15.50	14.33	16.69	13.52	13.01	15.23	14.18
Restricted range	7.82	8.15	8.48	8.05	8.21	8.11	7.98
Restricted range ratio	1.242	1.248	1.281	1.256	1.310	1.287	1.309
Mean deviation from median	1.91	2.02	2.05	1.71	1.72	1.76	1.67
Relative deviation from median	0.185	0.190	0.187	0.166	0.163	0.158	0.152
Mean	10.30	10.61	10.99	10.30	10.38	10.89	10.73
Standard deviation	2.407	2.513	2.588	2.269	2.290	2.365	2.268
Coefficient of variation	0.234	0.237	0.236	0.220	0.221	0.217	0.211
Mean deviation from mean	1.91	2.02	2.05	1.71	1.73	1.78	1.68
Relative deviation from mean	0.185	0.190	0.186	0.166	0.166	0.164	0.157
Gini coefficient	0.131	0.134	0.132	0.122	0.122	0.119	0.115
Regression results							
Adj. wealth: Linear F	139.890	152.536	177.135	60.702	144.401	210.087	236.892
Elasticity	-0.198	-0.208	-0.216	-0.133	-0.194	-0.200	-0.201
Quadratic F	83.851	89.742	102.877	30.444	73.005	110.217	120.943
Elasticity	-0.271	-0.280	-0.285	-0.121	-0.214	-0.239	-0.228
Income: Linear F	2.368	1.406	1.353	3.986	0.309	0.172	0.888
Elasticity	-0.048	-0.038	-0.036	0.055	0.011	-0.011	-0.024
Quadratic F	1.500	1.037	0.910	4.460	0.327	0.168	0.578
Elasticity	-0.022	-0.010	-0.014	0.120	0.033	0.001	-0.010
Mean for adj. wealth decile							
1st	11.57	12.25	12.67	9.07	10.66	11.47	11.18
2nd	12.20	12.28	12.78	10.65	11.32	12.13	11.76
3rd	11.51	12.23	12.56	10.53	11.11	11.50	11.56
4th	11.22	11.58	11.80	11.32	11.23	12.52	11.89
5th	11.19	11.10	12.18	12.15	12.18	12.44	12.11
6th	10.33	10.95	11.35	11.76	11.61	12.01	12.24
7th	10.12	10.42	10.53	10.94	10.66	10.99	10.94
8th	9.71	9.78	10.00	10.83	10.20	10.39	9.82
9th	8.41	8.49	8.79	8.59	8.16	8.62	9.29
10th	6.71	6.97	7.22	7.19	6.70	6.87	6.49
Mean for income decile							
1st	10.67	10.96	11.91	9.62	10.49	11.07	10.68
2nd	10.67	11.05	11.05	10.41	11.03	11.69	11.48
3rd	10.96	11.11	11.54	10.06	10.05	10.77	11.02
4th	9.86	10.21	10.61	10.18	10.36	10.60	10.28
5th	10.43	10.59	9.91	9.49	9.39	10.80	11.00
6th	10.91	10.42	11.80	10.48	10.49	10.28	10.10
7th	9.20	10.65	10.85	11.11	10.51	11.37	10.89
8th	10.67	10.89	10.97	9.87	10.27	10.41	10.60
9th	11.08	11.19	11.61	11.51	10.72	11.33	11.12
10th	9.69	10.16	10.67	10.75	10.79	10.82	10.38
Mean for district type							
Below median ADM	8.98	9.15	9.52	9.46	9.29	9.93	9.80
Above median ADM	11.61	12.06	12.46	11.15	11.48	11.86	11.66
Below median % urban	9.46	9.65	10.03	9.81	9.68	10.29	10.27
Above median % urban	11.36	11.79	12.16	10.88	11.14	11.54	11.24
Below median % white	10.79	11.14	11.54	10.68	10.92	11.35	11.17
Above median % white	10.04	10.31	10.64	10.02	9.90	10.47	10.34
Below median % poverty	10.93	11.39	11.81	10.86	10.94	11.36	11.20
Above median % poverty	9.89	10.06	10.37	9.83	9.87	10.46	10.31
Correlation with							
ADM	0.117	0.133	0.121	0.095	0.145	0.110	0.115
Adj. wealth	-0.608	-0.623	-0.650	-0.443	-0.608	-0.674	-0.693
Income	-0.102	-0.079	-0.076	0.129	0.036	-0.027	-0.061
% Urban	0.468	0.496	0.480	0.294	0.406	0.343	0.317
% White	-0.193	-0.197	-0.205	-0.119	-0.193	-0.170	-0.116
% Poverty	-0.214	-0.270	-0.261	-0.290	-0.201	-0.137	-0.169
Gini by adj. wealth distribution	0.428	0.430	0.431	0.398	0.417	0.430	0.422
Gini by income distribution	0.272	0.273	0.273	0.254	0.273	0.281	0.284

TABLE 1. Summary statistics for the 1990 Census of the United States, by race and ethnicity, and by income and wealth deciles							
Mean							
Percentile							
100th							
90th							
50th							
50th (median)							
25th							
10th							
1st							
Range	11.50	14.3	11.69	11.50	11.01	11.21	14.18
Restricted range	11.1	11.24	11.05	11.05	11.12	11.07	11.03
Restricted range ratio	0.710	0.680	0.756	0.722	0.547	0.631	0.578
Mean deviation from median	1.39	1.40	1.66	1.66	1.25	0.98	1.00
Relative deviation from median	0.129	0.127	0.140	0.097	0.108	0.082	0.083
Mean	11.32	11.81	11.11	11.07	11.56	11.87	11.65
Standard deviation	1.904	1.935	2.081	1.679	1.636	1.505	1.413
Coefficient of variation	0.168	0.164	0.172	0.152	0.142	0.127	0.121
Mean deviation from mean	1.45	1.55	1.66	1.11	1.25	1.61	1.02
Relative deviation from mean	0.128	0.123	0.137	0.100	0.108	0.086	0.088
Gini coefficient	0.090	0.087	0.093	0.077	0.076	0.065	0.064
Regression results							
Adj. wealth: Linear F	85.404	88.908	110.454	3.857	29.380	91.405	88.658
Elasticity	-0.176	-0.172	-0.197	-0.038	-0.095	-0.128	-0.128
Quadratic F	46.960	47.001	59.790	11.881	24.196	49.151	52.333
Elasticity	-0.206	-0.204	-0.239	0.036	-0.029	-0.097	-0.089
Income: Linear F	6.480	8.216	5.830	3.294	3.738	9.349	14.786
Elasticity	-0.055	-0.059	-0.052	0.032	-0.032	-0.044	-0.052
Quadratic F	5.022	5.680	6.510	12.729	2.636	10.968	12.731
Elasticity	-0.012	-0.018	0.012	0.129	-0.008	0.012	-0.001
Mean for adj. wealth decile							
1st	12.49	13.20	13.44	9.64	10.98	11.94	11.52
2nd	12.81	12.88	13.29	10.83	11.31	12.29	11.70
3rd	12.67	13.32	14.35	10.93	11.40	11.61	11.78
4th	11.54	12.03	12.52	11.50	11.42	12.15	11.96
5th	11.22	11.54	11.96	12.20	12.40	12.18	12.36
6th	11.24	11.81	12.00	10.87	12.49	12.03	12.15
7th	10.46	11.08	10.95	10.87	12.72	12.48	12.34
8th	10.45	11.13	11.24	11.92	11.46	12.09	12.15
9th	10.64	11.37	11.71	12.03	11.90	11.68	11.15
10th	9.67	9.71	9.63	9.89	9.49	9.72	9.40
Mean for income decile							
1st	12.06	13.04	13.52	10.57	11.25	11.87	11.22
2nd	10.46	11.08	10.95	10.87	12.58	12.08	12.20
3rd	10.47	11.08	10.95	10.87	12.49	12.03	12.15
4th	11.89	11.73	12.06	10.20	11.43	11.73	11.75
5th	11.77	12.28	12.02	10.53	10.45	11.73	11.76
6th	12.45	12.80	14.11	11.48	11.50	11.47	11.60
7th	11.14	12.03	12.52	11.80	11.73	12.46	11.74
8th	11.69	12.01	12.14	11.36	10.83	11.48	11.24
9th	10.96	11.39	11.94	11.86	11.92	12.18	12.05
10th	10.42	10.76	10.93	11.14	11.26	11.03	10.72
Mean for district type							
Below median ADM	11.30	11.68	12.10	10.91	11.13	11.57	11.40
Above median ADM	11.34	11.93	12.12	11.22	11.98	12.07	11.90
Below median % urban	11.53	11.91	12.43	11.07	11.13	11.69	11.46
Above median % urban	11.14	11.73	11.80	11.07	11.96	11.92	11.83
Below median % white	11.29	11.77	11.97	11.15	11.93	11.95	11.87
Above median % white	11.37	11.87	12.26	10.98	11.15	11.66	11.42
Below median % poverty	11.70	12.22	12.63	11.30	11.37	11.85	11.58
Above median % poverty	10.97	11.41	11.60	10.84	11.72	11.76	11.71
Correlation with							
ADM	-0.240	-0.198	-0.294	-0.058	0.297	0.076	0.185
Adj. wealth	-0.520	-0.520	-0.560	-0.124	-0.327	-0.516	-0.507
Income	-0.167	-0.187	-0.157	0.117	-0.126	-0.195	-0.243
% Urban	0.226	0.258	0.228	0.176	0.290	0.232	0.212
% White	-0.139	-0.173	-0.099	-0.142	-0.418	-0.226	-0.273
% Poverty	-0.094	-0.116	-0.121	-0.182	0.033	-0.035	-0.009
Gini by adj. wealth distribution	0.298	0.289	0.293	0.234	0.247	0.263	0.257
Gini by income distribution	0.271	0.275	0.275	0.259	0.288	0.288	0.291



Table 1  
DISTRIBUTION OF GENERAL LEVY PER \$100, EXCLUDING STATE AID IN COMMISSION  
IN FLORIDA

Measure	Lower ghts		weighted	
	1971-72	1973-74	1971-72	1973-74
Percentile				
100th	1518.83	1521.08	1518.83	1521.08
95th	906.57	1018.12	873.51	1001.89
75th	808.11	1095.09	831.69	1243.73
50th (median)	744.15	1024.13	761.16	1088.91
25th	714.96	972.18	735.61	1030.13
5th	663.74	886.22	685.41	928.79
1st	599.26	491.62	599.26	491.62
Range	914.62	1033.46	914.62	1033.46
Restricted range	242.84	430.90	188.10	573.10
Restricted range ratio	0.366	0.487	0.274	0.402
Mean deviation from median	70.09	100.52	60.58	116.54
Relative deviation from median	0.094	0.098	0.079	0.107
Mean	776.18	1043.18	785.33	1118.78
Standard deviation	129.622	149.563	95.284	150.409
Coefficient of variation	0.167	0.143	0.121	0.134
Mean deviation from mean	75.59	102.37	62.52	117.66
Relative deviation from mean	0.097	0.098	0.080	0.105
Gini coefficient	0.069	0.073	0.054	0.072
Regression results				
Adj. wealth: Linear F	21.514	20.278	44.422	46.938
Elasticity	0.176	0.128	0.217	0.229
Quadratic F	11.930	10.173	22.071	24.729
Elasticity	0.218	0.144	0.221	0.240
Income: Linear F	1.207	29.030	4.575	77.226
Elasticity	0.045	0.201	0.097	0.326
Quadratic F	1.763	15.215	2.684	38.890
Elasticity	0.113	0.240	0.111	0.317
Adj. tax rate: Linear F	1.687	8.178	6.133	1.008
Elasticity	0.177	0.367	0.336	0.169
Quadratic F	1.161	4.457	3.551	3.510
Elasticity	0.250	0.369	0.440	0.118
Mean for adj. wealth decile				
1st	684.54	1031.11	698.82	969.34
2nd	736.88	954.44	724.95	1031.06
3rd	717.49	963.76	750.57	982.45
4th	742.72	1034.75	741.01	1018.64
5th	746.54	939.72	757.71	1137.74
6th	739.67	964.77	741.28	1081.46
7th	761.07	1111.82	875.20	1301.89
8th	773.50	1066.33	857.69	1230.56
9th	932.31	1156.32	830.33	1182.88
10th	927.11	1208.79	875.71	1251.75
Mean for income decile				
1st	727.72	887.78	745.13	892.38
2nd	759.44	926.06	777.72	1032.20
3rd	721.09	1078.54	751.20	1098.35
4th	750.45	999.91	738.92	1075.81
5th	747.88	1001.24	765.08	1110.40
6th	848.34	1016.15	755.33	1026.01
7th	771.83	1093.22	827.04	1167.91
8th	835.50	1100.17	853.42	1278.72
9th	793.40	1099.61	833.11	1296.85
10th	806.16	1229.14	806.32	1209.14
Mean for district type				
Below median ADM	769.62	1022.40	769.22	1052.21
Above median ADM	782.74	1063.96	801.43	1185.34
Below median % urban	770.26	990.12	769.35	1047.58
Above median % urban	782.11	1096.24	801.30	1189.97
Below median % white	795.62	1019.98	803.84	1140.95
Above median % white	756.75	1066.39	766.82	1096.60
Below median % poverty	781.11	1084.93	809.35	1215.25
Above median % poverty	771.25	1001.44	761.30	1022.30
Correlation with				
ADM	0.039	0.295	0.298	0.612
Adj. wealth	0.499	0.488	0.637	0.648
Income	0.135	0.556	0.256	0.737
% Urban	0.089	0.335	0.158	0.541
% White	-0.033	0.171	-0.090	0.135
% Poverty	-0.127	-0.310	-0.101	-0.504
Adj. tax rate	0.159	0.334	0.294	0.124
Gini by adj. wealth distribution	0.219	0.257	0.165	0.175
Gini by income distribution	0.234	0.181	0.154	0.124

Table A-15  
DISTRIBUTION OF GENERAL REVENUE PER FFLU  
IN FLORIDA

Measure	Unweighted		Weighted	
	1972-73	1975-76	1972-73	1975-76
Percentile				
100th	1546.31	1593.90	1546.31	1593.90
95th	1336.29	1335.96	871.51	1301.89
75th	871.99	1160.41	857.69	1246.95
50th (median)	795.24	1075.66	780.09	1088.93
25th	748.57	1027.77	744.37	1034.14
5th	692.49	916.92	689.04	979.14
1st	618.82	501.13	618.82	501.13
Range	927.50	1092.77	927.50	1092.77
Restricted range	346.80	419.04	184.48	322.75
Restricted range ratio	0.301	0.457	0.268	0.330
Mean deviation from median	89.99	97.72	60.58	112.35
Relative deviation from median	0.113	0.091	0.078	0.103
Mean	830.51	1092.23	795.15	1128.00
Standard deviation	141.620	147.298	97.340	146.222
Coefficient of variation	0.171	0.135	0.122	0.130
Mean deviation from mean	93.62	99.99	62.62	113.35
Relative deviation from mean	0.113	0.092	0.079	0.100
Gini coefficient	0.079	0.068	0.054	0.068
Regression results				
Adj. wealth: Linear F	16.662	14.240	34.569	43.187
Elasticity	0.163	0.104	0.202	0.215
Quadratic F	8.203	7.210	17.026	22.108
Elasticity	0.164	0.088	0.201	0.224
Income: Linear F	0.347	9.371	1.705	58.858
Elasticity	-0.025	0.121	0.061	0.294
Quadratic F	0.173	4.652	0.858	29.170
Elasticity	-0.022	0.130	0.064	0.289
Adj. tax rate: Linear F	0.851	2.523	3.079	0.631
Elasticity	-0.129	0.199	0.246	0.129
Quadratic F	1.197	1.315	2.522	2.521
Elasticity	-0.014	0.200	0.395	0.086
Mean for adj. wealth decile				
1st	747.95	1103.07	726.36	997.28
2nd	816.45	1048.10	731.84	1043.46
3rd	776.16	1025.96	754.65	990.88
4th	791.99	1075.10	762.50	1030.95
5th	811.42	986.88	760.33	1147.81
6th	787.79	1035.30	751.30	1089.16
7th	786.71	1136.03	886.10	1301.89
8th	835.34	1078.46	857.69	1232.69
9th	972.90	1165.68	832.89	1187.75
10th	978.35	1267.71	887.80	1258.14
Mean for income decile				
1st	812.51	957.85	793.30	938.33
2nd	888.77	1030.35	792.09	1047.09
3rd	831.94	1178.10	758.83	1106.91
4th	850.13	1095.57	744.43	1080.00
5th	787.35	1043.48	770.44	1115.35
6th	876.51	1058.58	763.61	1032.02
7th	786.92	1106.10	830.70	1173.27
8th	852.18	1108.43	853.82	1280.01
9th	802.50	1106.08	833.70	1296.92
10th	816.45	1237.75	810.54	1210.12
Mean for district type				
Below median ADM	866.63	1110.18	786.73	1068.74
Above median ADM	794.38	1074.27	803.57	1187.26
Below median % urban	857.41	1069.11	786.86	1063.95
Above median % urban	803.60	1115.35	803.43	1192.05
Below median % white	857.45	1076.27	815.36	1151.70
Above median % white	803.56	1108.19	774.93	1104.30
Below median % poverty	797.96	1098.61	811.56	1217.80
Above median % poverty	863.05	1085.85	778.73	1038.20
Correlation with				
ADM	-0.139	0.142	0.199	0.573
Adj. wealth	0.452	0.424	0.589	0.632
Income	-0.073	0.355	0.160	0.689
% Urban	-0.242	0.057	0.001	0.464
% White	-0.109	0.095	-0.142	0.103
% Poverty	0.127	-0.092	0.047	-0.428
Adj. tax rate	-0.114	0.193	0.213	0.098
Gini by adj. wealth distribution	0.228	0.265	0.168	0.177
Gini by income distribution	0.260	0.200	0.160	0.129

Variable	1970	1980	1990	2000
Population				
1970	1,000,000	1,000,000	1,000,000	1,000,000
1980	1,000,000	1,000,000	1,000,000	1,000,000
1990	1,000,000	1,000,000	1,000,000	1,000,000
2000	1,000,000	1,000,000	1,000,000	1,000,000
Median income	10,000	10,000	10,000	10,000
Mean	10,000	10,000	10,000	10,000
Std	10,000	10,000	10,000	10,000
Var	10,000	10,000	10,000	10,000
Range	10,000	10,000	10,000	10,000
Restricted range	10,000	10,000	10,000	10,000
Restricted range ratio	10,000	10,000	10,000	10,000
Mean deviation from median	10,000	10,000	10,000	10,000
Relative deviation from median	10,000	10,000	10,000	10,000
Mean	10,000	10,000	10,000	10,000
Standard deviation	10,000	10,000	10,000	10,000
Coefficient of variation	10,000	10,000	10,000	10,000
Mean deviation from mean	10,000	10,000	10,000	10,000
Relative deviation from mean	10,000	10,000	10,000	10,000
Gini coefficient	10,000	10,000	10,000	10,000
Regression results				
Adj. wealth: Linear F	10,000	10,000	10,000	10,000
Elasticity	10,000	10,000	10,000	10,000
Quadratic F	10,000	10,000	10,000	10,000
Elasticity	10,000	10,000	10,000	10,000
Income: Linear F	10,000	10,000	10,000	10,000
Elasticity	10,000	10,000	10,000	10,000
Quadratic F	10,000	10,000	10,000	10,000
Elasticity	10,000	10,000	10,000	10,000
Adj. tax rate: Linear F	10,000	10,000	10,000	10,000
Elasticity	10,000	10,000	10,000	10,000
Quadratic F	10,000	10,000	10,000	10,000
Elasticity	10,000	10,000	10,000	10,000
Mean for adj. wealth decile				
1st	10,000	10,000	10,000	10,000
2nd	10,000	10,000	10,000	10,000
3rd	10,000	10,000	10,000	10,000
4th	10,000	10,000	10,000	10,000
5th	10,000	10,000	10,000	10,000
6th	10,000	10,000	10,000	10,000
7th	10,000	10,000	10,000	10,000
8th	10,000	10,000	10,000	10,000
9th	10,000	10,000	10,000	10,000
10th	10,000	10,000	10,000	10,000
Mean for income decile				
1st	10,000	10,000	10,000	10,000
2nd	10,000	10,000	10,000	10,000
3rd	10,000	10,000	10,000	10,000
4th	10,000	10,000	10,000	10,000
5th	10,000	10,000	10,000	10,000
6th	10,000	10,000	10,000	10,000
7th	10,000	10,000	10,000	10,000
8th	10,000	10,000	10,000	10,000
9th	10,000	10,000	10,000	10,000
10th	10,000	10,000	10,000	10,000
Mean for district type				
Below median ADM	10,000	10,000	10,000	10,000
Above median ADM	10,000	10,000	10,000	10,000
Below median % urban	10,000	10,000	10,000	10,000
Above median % urban	10,000	10,000	10,000	10,000
Below median % white	10,000	10,000	10,000	10,000
Above median % white	10,000	10,000	10,000	10,000
Below median % poverty	10,000	10,000	10,000	10,000
Above median % poverty	10,000	10,000	10,000	10,000
Correlation with				
ADM	10,000	10,000	10,000	10,000
Adj. wealth	10,000	10,000	10,000	10,000
Income	10,000	10,000	10,000	10,000
% Urban	10,000	10,000	10,000	10,000
% White	10,000	10,000	10,000	10,000
% Poverty	10,000	10,000	10,000	10,000
Adj. tax rate	10,000	10,000	10,000	10,000
Gini by adj. wealth distribution	10,000	10,000	10,000	10,000
Gini by income distribution	10,000	10,000	10,000	10,000

Table A.25  
DISTRIBUTION OF LOCAL + STATE REVENUE PER PERSON  
IN FLORIDA

Measure	Unweighted		Weighted	
	1972-73	1974-76	1972-73	1975-76
Percentile:				
100th	1593.79	1695.58	1593.79	1695.58
95th	1067.17	1404.05	895.47	1347.85
75th	897.42	1232.76	873.51	1288.35
50th (median)	826.57	1142.70	804.63	1165.82
25th	774.80	1091.33	767.39	1089.30
5th	698.08	975.07	708.73	1026.64
1st	99.90	534.76	99.90	534.76
Range	1493.90	1160.82	1493.90	1160.82
Restricted range	369.09	428.97	186.74	321.21
Restricted range ratio	0.529	0.440	0.263	0.313
Mean deviation from median	107.62	103.27	65.87	109.88
Relative deviation from median	0.130	0.090	0.082	0.094
Mean	843.09	1161.51	811.71	1181.62
Standard deviation	180.362	153.726	116.853	146.230
Coefficient of variation	0.214	0.132	0.144	0.124
Mean deviation from mean	108.50	104.70	66.87	111.58
Relative deviation from mean	0.129	0.090	0.082	0.094
Gini coefficient	0.098	0.067	0.059	0.065
Regression results				
Adj. wealth: Linear F	10.816	11.295	22.208	39.016
Elasticity	0.171	0.093	0.203	0.199
Quadratic F	5.340	5.975	10.955	19.722
Elasticity	0.177	0.069	0.206	0.206
Income: Linear F	0.104	5.459	1.987	47.351
Elasticity	-0.017	0.093	0.077	0.264
Quadratic F	0.052	2.695	1.014	23.413
Elasticity	-0.019	0.097	0.082	0.261
Adj. tax rate: Linear F	0.024	1.152	4.580	0.480
Elasticity	-0.027	0.134	0.348	0.108
Quadratic F	0.602	0.573	2.388	1.773
Elasticity	0.101	0.133	0.412	0.073
Mean for adj. wealth decile				
1st	776.26	1174.25	717.33	1059.99
2nd	752.12	1144.92	753.91	1100.00
3rd	802.99	1098.60	778.10	1041.97
4th	820.45	1136.22	790.18	1085.82
5th	842.72	1047.65	780.36	1209.25
6th	812.54	1109.17	775.26	1139.21
7th	814.51	1206.58	886.11	1347.85
8th	865.75	1135.81	873.51	1283.82
9th	935.79	1225.62	850.28	1238.05
10th	1007.77	1336.32	912.08	1310.25
Mean for income decile				
1st	844.70	1048.23	787.32	1005.47
2nd	919.40	1101.31	818.28	1110.09
3rd	861.24	1254.37	755.95	1163.83
4th	783.57	1178.18	765.41	1134.33
5th	816.98	1113.79	794.49	1165.87
6th	906.65	1132.29	788.68	1085.77
7th	749.07	1168.02	851.16	1220.47
8th	877.84	1164.63	869.89	1324.15
9th	830.28	1160.64	851.38	1343.10
10th	841.18	1293.68	834.54	1263.13
Mean for district type				
Below median ADM	898.26	1192.00	800.23	1128.13
Above median ADM	787.92	1131.03	823.19	1235.11
Below median % urban	869.69	1148.68	800.57	1123.07
Above median % urban	816.48	1174.35	822.86	1240.17
Below median % white	854.71	1145.48	825.76	1206.69
Above median % white	831.46	1177.55	797.67	1156.56
Below median % poverty	810.81	1155.75	830.89	1266.19
Above median % poverty	875.37	1167.27	792.53	1097.05
Correlation with				
ADM	-0.097	0.076		
Adj. wealth	0.378	0.385	0.187	0.529
Income	-0.040	0.278	0.505	0.612
% Urban	-0.213	-0.035	0.172	0.649
% White	-0.045	0.092	0.038	0.407
% Poverty	0.054	-0.004	-0.064	0.087
Adj. tax rate	-0.019	0.132	-0.049	-0.369
Gini by adj. wealth distribution	0.239	0.269	0.257	0.086
Gini by income distribution	0.273	0.206	0.174	0.180
			0.163	0.133

Table 1. Summary statistics for the distribution of wealth and income in the sample				
Variable	Sample		Sample	
	1990	1995	1990	1995
Percentile				
10th	698.89	1192.38	745.71	1093.68
20th	753.59	1151.98	782.15	1120.13
30th	818.99	1110.59	790.46	1055.95
40th	828.62	1147.31	795.43	1101.67
50th (median)	845.81	1059.42	788.52	1215.09
60th	814.87	1109.54	776.43	1153.69
70th	815.22	1217.79	917.79	1415.27
80th	879.42	1144.69	935.85	1320.50
90th	947.42	1246.49	866.68	1239.58
100	1013.18	1344.70	912.60	1311.73
Range	1190.75	1137.30	1190.75	1137.30
Restricted range	687.90	116.42	20.154	187.17
Restricted range ratio	0.123	0.041	0.0274	0.177
Mean deviation from median	104.63	102.08	69.75	111.75
Relative deviation from median	0.126	0.086	0.086	0.097
Mean	841.48	1121.49	841.46	1102.73
Standard deviation	170.753	151.027	120.615	154.069
Coefficient of variation	0.211	0.132	0.145	0.128
Mean deviation from mean	105.89	104.70	71.89	117.14
Relative deviation from mean	0.124	0.089	0.086	0.097
Gini coefficient	0.095	0.066	0.062	0.067
Regression results				
Adj. wealth: Linear F	10.714	10.792	21.290	29.972
Elasticity	0.168	0.091	0.202	0.189
Quadratic F	5.275	5.674	10.501	15.278
Elasticity	0.169	0.068	0.204	0.197
Income: Linear F	0.033	6.811	2.870	50.544
Elasticity	-0.010	0.103	0.093	0.279
Quadratic F	0.030	3.359	1.583	24.905
Elasticity	0.000	0.106	0.104	0.277
Adj. tax rate: Linear F	0.000	1.582	8.805	1.131
Elasticity	0.002	0.156	0.473	0.171
Quadratic F	0.710	0.783	4.880	2.651
Elasticity	0.140	0.156	0.594	0.129
Mean for adj. wealth decile				
1st	796.89	1192.38	745.71	1093.68
2nd	753.59	1151.98	782.15	1120.13
3rd	818.99	1110.59	790.46	1055.95
4th	828.62	1147.31	795.43	1101.67
5th	845.81	1059.42	788.52	1215.09
6th	814.87	1109.54	776.43	1153.69
7th	815.22	1217.79	917.79	1415.27
8th	879.42	1144.69	935.85	1320.50
9th	947.42	1246.49	866.68	1239.58
10th	1013.18	1344.70	912.60	1311.73
Mean for income decile				
1st	844.95	1055.37	790.62	1015.32
2nd	919.71	1114.88	839.23	1136.24
3rd	871.38	1255.14	769.10	1174.26
4th	784.54	1178.74	791.00	1146.04
5th	819.23	1116.44	805.13	1173.11
6th	924.46	1147.96	801.59	1100.67
7th	756.96	1187.89	851.54	1242.72
8th	891.18	1175.94	925.07	1364.97
9th	845.48	1167.22	899.82	1408.04
10th	856.14	1325.32	838.54	1265.92
Mean for district type				
Below median ADM	900.47	1197.12	813.74	1142.30
Above median ADM	802.33	1147.86	848.59	1263.16
Below median % urban	871.61	1154.66	811.05	1135.51
Above median % urban	831.20	1190.32	851.28	1269.95
Below median % white	858.13	1150.19	848.96	1232.87
Above median % white	844.68	1194.79	813.36	1172.59
Below median % poverty	825.12	1172.60	857.63	1292.58
Above median % poverty	877.68	1172.38	804.69	1112.88
Correlation with				
ADM	-0.063	0.114	0.309	0.605
Adj. wealth	0.376	0.377	0.497	0.562
Income	-0.022	0.308	0.206	0.661
% Urban	-0.176	0.004	0.109	0.440
% White	-0.024	0.125	-0.024	0.111
% Poverty	0.017	-0.043	-0.104	-0.388
Adj. tax rate	0.001	0.154	0.345	0.131
Gini by adj. wealth distribution	0.240	0.270	0.174	0.184
Gini by income distribution	0.270	0.204	0.162	0.132

Table A.27  
DISTRIBUTION OF TOTAL REVENUE PER PERSON  
IN FLORIDA

Measure	Unweighted		Weighted	
	1972-73	1975-76	1972-73	1975-76
Percentile				
100th	1709.86	2115.17	1709.86	2115.17
95th	1370.05	1640.66	998.68	1544.31
75th	997.86	1399.31	931.04	1407.31
50th (median)	912.86	1512.25	897.16	1301.40
25th	861.23	1256.28	837.04	1252.04
5th	781.41	1119.08	791.51	1125.88
1st	183.08	603.22	183.08	603.22
Range	1526.78	1511.94	1526.78	1511.94
Restricted range	588.64	521.58	205.17	418.43
Restricted range ratio	0.754	0.466	0.259	0.372
Mean deviation from median	123.59	121.08	73.65	115.24
Relative deviation from median	0.135	0.092	0.082	0.089
Mean	948.13	1333.94	902.02	1334.88
Standard deviation	206.062	190.013	126.712	164.369
Coefficient of variation	0.217	0.142	0.140	0.123
Mean deviation from mean	127.22	123.97	74.50	117.85
Relative deviation from mean	0.134	0.093	0.083	0.088
Gini coefficient	0.102	0.070	0.060	0.063
Regression results				
Adj. wealth: Linear F	10.650	5.677	16.282	23.432
Elasticity	0.172	0.074	0.176	0.167
Quadratic F	6.325	3.871	8.156	11.574
Elasticity	0.116	0.028	0.170	0.169
Income: Linear F	0.643	1.736	1.332	32.718
Elasticity	-0.043	0.058	0.062	0.234
Quadratic F	0.454	0.855	0.658	16.165
Elasticity	-0.074	0.058	0.063	0.231
Adj. tax rate: Linear F	0.924	0.513	7.200	1.161
Elasticity	-0.171	0.096	0.419	0.166
Quadratic F	1.723	0.254	4.795	1.499
Elasticity	0.015	0.097	0.598	0.139
Mean for adj. wealth decile				
1st	886.75	1380.82	825.78	1234.02
2nd	876.06	1372.02	849.61	1266.18
3rd	931.47	1270.81	881.92	1188.12
4th	906.21	1297.98	873.09	1229.15
5th	961.50	1184.72	843.04	1350.82
6th	893.13	1275.43	844.50	1272.68
7th	885.69	1362.20	992.03	1544.31
8th	968.43	1286.21	995.39	1450.79
9th	1025.54	1386.20	922.54	1361.39
10th	1146.51	1523.05	992.29	1451.34
Mean for income decile				
1st	969.19	1200.77	889.02	1160.31
2nd	1072.93	1347.06	912.07	1273.96
3rd	1013.43	1451.38	831.14	1315.06
4th	876.27	1351.55	849.16	1292.85
5th	911.24	1275.93	898.83	1303.37
6th	995.21	1281.73	870.89	1236.51
7th	831.10	1340.89	918.09	1351.93
8th	970.58	1323.52	984.03	1484.26
9th	920.39	1316.08	959.55	1536.62
10th	920.91	1450.53	907.43	1393.93
Mean for district type				
Below median ADM	1020.38	1381.00	887.75	1280.44
Above median ADM	875.87	1286.88	916.29	1389.32
Below median % urban	993.06	1336.20	889.85	1276.50
Above median % urban	903.20	1331.69	914.19	1393.26
Below median % white	969.52	1327.02	925.83	1376.17
Above median % white	926.73	1340.87	878.21	1293.59
Below median % poverty	898.50	1306.63	915.81	1415.32
Above median % poverty	997.76	1361.26	888.23	1254.44
Correlation with				
ADM	-0.125	0.003	0.239	0.529
Adj. wealth	0.375	0.283	0.448	0.515
Income	-0.099	0.161	0.142	0.579
% Urban	-0.285	-0.124	0.022	0.350
% White	-0.121	-0.043	-0.115	-0.011
% Poverty	0.154	0.172	0.022	-0.246
Adj. tax rate	-0.118	0.089	0.316	0.132
Gini by adj. wealth distribution	0.242	0.277	0.179	0.188
Gini by income distribution	0.281	0.215	0.167	0.140

Table A.28  
DISTRIBUTION OF INSTRUCTIONAL EXPENDITURES PER PUPIL  
IN FLORIDA

Measure	Unweighted		Weighted	
	1972-73	1975-76	1972-73	1975-76
Percentile				
100th	1152.22	1083.04	1152.22	1083.04
95th	817.91	1003.29	706.62	1031.75
75th	642.81	851.34	681.97	941.61
50th (median)	602.98	793.36	614.36	814.12
25th	575.86	749.47	584.71	778.34
5th	532.30	699.69	551.11	705.05
1st	456.14	414.06	456.14	414.06
Range	696.08	668.98	696.08	668.98
Restricted range	285.61	303.60	155.51	326.70
Restricted range ratio	0.537	0.434	0.282	0.463
Mean deviation from median	56.54	71.71	45.31	89.93
Relative deviation from median	0.094	0.090	0.074	0.110
Mean	625.66	806.97	625.45	853.36
Standard deviation	97.321	103.748	71.973	117.832
Coefficient of variation	0.156	0.129	0.115	0.138
Mean deviation from mean	59.26	72.26	47.09	92.49
Relative deviation from mean	0.095	0.090	0.075	0.108
Gini coefficient	0.070	0.066	0.053	0.074
Regression results				
Adj. wealth: Linear F	5.520	9.733	31.387	29.839
Elasticity	0.092	0.085	0.184	0.204
Quadratic F	2.730	4.843	15.465	15.466
Elasticity	0.097	0.076	0.183	0.213
Income: Linear F	0.030	12.587	3.780	79.457
Elasticity	-0.007	0.130	0.084	0.337
Quadratic F	0.266	6.287	2.390	40.549
Elasticity	0.024	0.117	0.099	0.348
Adj. tax rate: Linear F	0.437	0.648	3.604	0.565
Elasticity	-0.085	0.098	0.249	0.131
Quadratic F	1.565	0.604	4.380	2.540
Elasticity	0.053	0.099	0.467	0.084
Mean for adj. wealth decile				
1st	575.87	803.89	581.56	776.77
2nd	644.65	810.15	585.51	804.36
3rd	612.42	777.81	586.16	725.55
4th	606.64	779.06	595.08	777.76
5th	619.63	729.86	604.86	843.89
6th	588.05	749.58	591.17	803.25
7th	588.19	845.38	681.70	1031.75
8th	597.78	800.05	693.75	960.34
9th	717.85	860.86	647.37	871.40
10th	705.52	913.10	687.37	938.57
Mean for income decile				
1st	622.83	719.93	605.30	702.93
2nd	675.75	806.80	629.43	796.35
3rd	599.93	806.29	589.89	843.73
4th	604.68	800.78	594.84	780.56
5th	578.85	768.26	602.07	814.88
6th	678.89	780.73	583.78	796.02
7th	594.57	831.47	637.33	841.16
8th	647.74	811.64	686.52	971.77
9th	619.33	831.86	674.77	1028.15
10th	634.03	911.98	650.61	958.09
Mean for district type				
Below median ADM	631.90	807.55	614.08	803.83
Above median ADM	619.42	806.40	636.83	902.90
Below median % urban	628.93	787.86	611.52	786.41
Above median % urban	622.39	826.09	639.38	920.32
Below median % white	645.60	797.84	644.92	893.83
Above median % white	605.72	816.10	605.99	812.90
Below median % poverty	608.14	816.77	645.23	924.46
Above median % poverty	643.18	797.18	605.68	782.26
Correlation with				
ADM	-0.001	0.261	0.349	0.667
Adj. wealth	0.280	0.361	0.571	0.561
Income	-0.021	0.403	0.234	0.742
% Urban	-0.042	0.152	0.156	0.528
% White	-0.172	-0.044	-0.150	0.007
% Poverty	0.158	-0.066	-0.023	-0.389
Adj. tax rate	-0.082	0.099	0.229	0.093
Gini by adj. wealth distribution	0.243	0.270	0.171	0.183
Gini by income distribution	0.250	0.197	0.155	0.123

Table A.28  
DISTRIBUTION OF ADJ. ADJUSTED TAX RATES  
IN FLORIDA

Measure	unweighted		weighted	
	10/12-74	10/75-79	10/12-74	10/75-79
Percentile				
100th	9.48	7.68	9.40	7.68
95th	8.92	7.45	9.00	7.36
75th	8.28	6.88	8.90	7.04
50th (median)	7.80	6.08	8.10	6.24
25th	6.67	5.60	7.70	6.05
5th	5.34	4.71	6.60	5.57
1st	4.50	4.23	4.50	4.23
Range	4.90	3.46	4.90	3.46
Restricted range	3.58	2.74	2.40	1.79
Restricted range ratio	0.669	0.582	0.364	0.320
Mean deviation from median	0.86	0.64	0.68	0.55
Relative deviation from median	0.110	0.105	0.083	0.087
Mean	7.48	6.15	8.10	6.45
Standard deviation	1.124	0.803	0.859	0.633
Coefficient of variation	0.150	0.131	0.106	0.098
Mean deviation from mean	0.91	0.65	0.68	0.55
Relative deviation from mean	0.121	0.105	0.083	0.086
Gini coefficient	0.083	0.074	0.057	0.055
Regression results				
Adj. wealth: Linear F	0.007	3.301	0.838	1.424
Elasticity	-0.003	0.053	0.033	-0.038
Quadratic F	0.533	3.069	0.707	0.701
Elasticity	0.029	0.102	0.025	-0.038
Income: Linear F	6.838	5.554	2.805	0.265
Elasticity	0.093	0.092	0.067	0.021
Quadratic F	4.227	5.229	1.703	3.397
Elasticity	0.142	0.169	0.078	-0.006
Mean for adj. wealth decile				
1st	7.87	5.66	8.18	6.21
2nd	7.62	5.53	8.25	6.87
3rd	7.10	5.87	8.72	7.01
4th	7.53	6.77	7.48	6.30
5th	6.85	6.19	7.55	6.30
6th	7.46	6.05	7.26	6.46
7th	7.61	6.39	8.17	6.80
8th	7.23	6.54	9.00	6.22
9th	7.97	6.14	8.33	6.07
10th	7.53	6.33	8.08	6.26
Mean for income decile				
1st	6.48	5.46	7.65	5.98
2nd	7.20	5.70	7.51	6.32
3rd	7.11	6.66	8.23	6.67
4th	7.19	5.71	7.95	6.90
5th	7.46	5.80	8.76	6.20
6th	7.67	6.08	8.02	7.05
7th	8.07	6.49	7.89	6.14
8th	7.83	6.65	8.90	6.58
9th	7.64	6.66	8.43	6.76
10th	8.12	6.25	7.69	5.90
Mean for district type				
Below median ADM	7.03	5.95	7.80	6.31
Above median ADM	7.93	6.34	8.41	6.59
Below median % urban	7.17	5.90	7.90	6.42
Above median % urban	7.78	6.40	8.31	6.48
Below median % white	7.49	6.16	8.31	6.60
Above median % white	7.46	6.14	7.90	6.30
Below median % poverty	7.89	6.44	8.18	6.34
Above median % poverty	7.07	5.85	8.02	6.56
Correlation with				
ADM	0.310	0.221	0.511	0.295
Adj. wealth	-0.011	0.220	0.113	-0.146
Income	0.309	0.281	0.203	0.064
% Urban	0.431	0.344	0.357	0.219
% White	0.103	0.137	-0.120	-0.066
% Poverty	-0.434	-0.396	-0.218	-0.141
Gini by adj. wealth distribution	0.264	0.276	0.201	0.229
Gini by income distribution	0.224	0.204	0.170	0.179



Table A-3  
ESTIMATES OF THE JOINTLY RESTRICTED COEFFICIENTS OF THE LOG-LOG MODEL  
IN EQUATION (1) FOR THE 1980 CENSUS

Measure	1980	1980	1980	1980	1980	1980
Percentile	1980	1980	1980	1980	1980	1980
100th	188.14	188.14	188.14	188.14	188.14	188.14
95th	187.14	187.14	187.14	187.14	187.14	187.14
75th	186.14	186.14	186.14	186.14	186.14	186.14
50th (median)	185.14	185.14	185.14	185.14	185.14	185.14
25th	184.14	184.14	184.14	184.14	184.14	184.14
5th	183.14	183.14	183.14	183.14	183.14	183.14
1st	182.14	182.14	182.14	182.14	182.14	182.14
Range	188.14	188.14	188.14	188.14	188.14	188.14
Restricted range	188.14	188.14	188.14	188.14	188.14	188.14
Restricted range ratio	188.14	188.14	188.14	188.14	188.14	188.14
Mean deviation from median	188.14	188.14	188.14	188.14	188.14	188.14
Relative deviation from median	188.14	188.14	188.14	188.14	188.14	188.14
Mean	188.14	188.14	188.14	188.14	188.14	188.14
Standard deviation	188.14	188.14	188.14	188.14	188.14	188.14
Coefficient of variation	188.14	188.14	188.14	188.14	188.14	188.14
Mean deviation from mean	188.14	188.14	188.14	188.14	188.14	188.14
Relative deviation from mean	188.14	188.14	188.14	188.14	188.14	188.14
Gini coefficient	188.14	188.14	188.14	188.14	188.14	188.14
Regression results						
Adj. wealth: Linear F	103.601	103.299	92.166	103.072	88.414	88.466
Elasticity	0.391	0.414	0.373	0.395	0.362	0.353
Quadratic F	64.362	51.067	62.638	59.336	43.518	55.923
Elasticity	0.514	0.427	0.504	0.486	0.362	0.451
Income: Linear F	5.447	2.151	1.911	3.737	2.810	3.093
Elasticity	0.222	0.131	0.135	0.213	0.155	0.177
Quadratic F	2.652	2.421	3.260	1.827	2.108	3.501
Elasticity	0.223	0.215	0.218	0.201	0.216	0.235
Adj. tax rate: Linear F	1.881	13.930	0.082	1.259	22.324	1.192
Elasticity	-0.142	0.510	0.041	-0.116	0.535	0.150
Quadratic F	0.980	9.251	0.625	0.806	12.970	0.976
Elasticity	-0.133	0.520	0.023	-0.094	0.554	0.132
Mean for adj. wealth decile						
1st	807.64	975.16	1086.40	798.27	936.42	1086.51
2nd	1120.58	1181.76	1281.67	946.41	1081.66	1150.00
3rd	1162.56	1300.02	1323.71	1181.68	1244.28	1264.71
4th	1136.19	1176.39	1331.26	1146.33	1302.79	1403.38
5th	1196.49	1178.85	1461.02	1105.05	1128.37	1281.73
6th	1263.88	1245.76	1411.90	1167.00	1200.00	1451.52
7th	1241.42	1377.70	1609.72	1252.77	1237.98	1487.07
8th	1397.64	1363.65	1752.64	1267.01	1372.58	1653.69
9th	1530.33	1555.04	1768.81	1353.48	1323.24	1640.08
10th	1786.20	1937.74	2227.27	1685.21	1786.96	2006.90
Mean for income decile						
1st	1138.53	1205.83	1199.12	1120.20	1249.57	1194.79
2nd	1117.12	1144.20	1331.93	1186.66	1100.78	1290.33
3rd	943.39	1100.26	1149.48	878.15	1125.62	1185.40
4th	962.52	1082.70	1624.21	969.00	1031.38	1227.26
5th	1151.00	1277.22	1599.62	927.40	1150.90	1731.24
6th	1175.17	1356.51	1372.39	1182.25	1311.30	1404.31
7th	1199.67	1286.51	1579.68	1198.70	1276.27	1437.87
8th	1102.04	1333.75	1510.82	1176.09	1314.00	1611.57
9th	1366.58	1361.40	1464.79	1138.93	1361.92	1430.85
10th	1337.97	1236.55	1373.89	1375.01	1229.99	1354.86
Mean for district type						
Below median ADM	1436.60	1481.95	1703.40	1362.91	1390.90	1631.18
Above median ADM	1091.98	1176.46	1347.48	1017.74	1131.96	1253.93
Below median % urban	1189.84	1288.37	1395.92	1179.24	1273.10	1376.07
Above median % urban	1108.96	1188.61	1445.26	1051.24	1157.25	1397.62
Below median % white	1045.11	1182.35	1417.53	1016.77	1161.99	1378.67
Above median % white	1253.69	1294.64	1423.65	1213.71	1268.36	1395.02
Below median % poverty	1145.94	1281.77	1548.15	1103.75	1262.69	1513.66
Above median % poverty	1152.86	1195.22	1293.04	1126.73	1167.66	1260.03
Correlation with						
ADM	-0.742	-0.641	-0.668	-0.739	-0.600	-0.644
Adj. wealth	0.786	0.774	0.752	0.785	0.749	0.745
Income	0.354	0.218	0.198	0.299	0.248	0.248
% Urban	-0.304	-0.211	-0.180	-0.300	-0.200	-0.166
% White	0.352	0.380	0.250	0.344	0.401	0.245
% Poverty	-0.049	-0.280	-0.399	-0.018	-0.294	-0.406
Adj. tax rate	-0.169	0.410	0.034	-0.139	0.494	0.128
Gini by adj. wealth distribution	0.160	0.161	0.158	0.156	0.169	0.160
Gini by income distribution	0.144	0.140	0.154	0.140	0.139	0.153

TABLE 1. A. F. CANAL REVENUE, 1991-92  
BY RANGE DISTRICTS WITH ADM BELOW 50

Measure	1991-92	Unweighted 1991-92	1991-92	Weighted 1991-92	1991-92
Percentile					
100th	2611.34	1661.25	2831.84	2177.48	2601.28
95th	1911.54	2091.28	2371.28	1765.21	1771.67
75th	1461.99	1421.61	1731.91	1335.81	1371.44
50th (median)	1111.91	1101.77	1471.07	1156.87	1129.32
25th	1069.86	1145.93	1124.63	1056.88	1111.92
5th	806.19	958.84	1008.31	792.10	934.29
1st	724.73	741.29	948.18	724.73	741.29
Range	1312.75	1949.85	1908.02	1312.75	1949.85
Restricted range	1101.37	1059.45	1281.76	973.10	839.37
Restricted range ratio	1.372	1.096	1.201	1.229	0.898
Mean deviation from median	233.47	222.07	283.15	211.80	188.98
Relative deviation from median	0.193	0.171	0.192	0.183	0.154
Mean	1264.29	1333.50	1565.06	1190.32	1265.69
Standard deviation	303.702	323.015	380.744	280.277	269.252
Coefficient of variation	0.240	0.242	0.243	0.235	0.213
Mean deviation from mean	238.37	224.51	292.15	214.32	191.62
Relative deviation from mean	0.189	0.168	0.187	0.180	0.151
Gini coefficient	0.133	0.124	0.131	0.129	0.110
Regression results					
Adj. wealth: Linear F	103.601	103.474	95.076	103.072	88.299
Elasticity	0.391	0.413	0.374	0.395	0.361
Quadratic F	64.362	51.168	66.375	59.336	43.511
Elasticity	0.514	0.426	0.509	0.486	0.361
Income: Linear F	5.447	2.153	1.989	3.737	2.831
Elasticity	0.222	0.131	0.138	0.213	0.156
Quadratic F	2.652	2.468	3.590	1.827	2.147
Elasticity	0.223	0.216	0.226	0.201	0.217
Adj. tax rate: Linear F	1.881	13.960	0.048	1.259	22.368
Elasticity	-0.142	0.509	0.031	-0.116	0.534
Quadratic F	0.980	9.269	0.587	0.806	13.001
Elasticity	-0.133	0.519	0.014	-0.094	0.553
Mean for adj. wealth decile					
1st	807.64	978.17	1107.04	798.27	939.36
2nd	1120.58	1186.06	1311.63	946.41	1085.94
3rd	1162.56	1305.00	1352.55	1181.68	1248.89
4th	1136.19	1180.22	1373.11	1146.33	1307.17
5th	1196.49	1184.80	1497.06	1105.05	1133.72
6th	1263.88	1250.55	1455.12	1167.00	1204.97
7th	1241.42	1379.64	1658.31	1252.77	1242.43
8th	1397.64	1367.82	1796.92	1267.01	1374.80
9th	1530.33	1559.90	1822.39	1353.48	1327.02
10th	1786.20	1942.83	2276.48	1685.21	1792.62
Mean for income decile					
1st	1138.53	1208.50	1227.43	1120.20	1252.34
2nd	1117.12	1148.21	1361.20	1186.66	1105.10
3rd	943.39	1103.78	1171.00	878.15	1128.48
4th	962.52	1086.99	1669.59	969.00	1036.10
5th	1151.00	1283.80	1635.28	927.40	1154.95
6th	1175.17	1362.84	1405.76	1182.25	1316.90
7th	1199.67	1289.95	1630.10	1198.70	1282.48
8th	1102.04	1336.68	1543.29	1176.09	1316.68
9th	1366.58	1367.05	1507.43	1138.93	1366.81
10th	1337.97	1241.40	1418.91	1375.01	1235.09
Mean for district type					
Below median ADM	1436.60	1486.26	1749.10	1362.91	1395.56
Above median ADM	1091.98	1180.73	1381.02	1017.74	1135.82
Below median % urban	1189.84	1292.84	1436.16	1179.24	1277.66
Above median % urban	1108.96	1193.00	1477.84	1051.24	1161.33
Below median % white	1045.11	1186.01	1450.99	1016.77	1165.65
Above median % white	1253.69	1299.83	1463.02	1213.71	1273.34
Below median % poverty	1145.94	1286.58	1589.16	1103.75	1267.32
Above median % poverty	1152.86	1199.26	1324.84	1126.73	1171.67
Correlation with					
ADM	-0.742	-0.641	-0.671	-0.739	-0.601
Adj. wealth	0.786	0.775	0.757	0.785	0.749
Income	0.354	0.218	0.201	0.299	0.249
% Urban	-0.304	-0.214	-0.193	-0.300	-0.203
% White	0.352	0.382	0.262	0.344	0.403
% Poverty	-0.049	-0.281	-0.406	-0.018	-0.294
Adj. tax rate	-0.169	0.410	0.026	-0.139	0.495
Gini by adj. wealth distribution	0.160	0.161	0.157	0.156	0.170
Gini by income distribution	0.144	0.140	0.153	0.140	0.139

TABLE 1  
ESTIMATION OF GENERAL + 1.8 = RESIDENTIAL PERCENT  
IN KANSAS HOUSES WITH ADJ. WEALTH

Measure	1970-74	1975-79	1980-84	1985-89	1990-94	1995-99
Percentile						
100th	1071.48	1071.48	1071.48	1071.48	1071.48	1071.48
95th	1011.34	1011.34	1011.34	1011.34	1011.34	1011.34
75th	1405.99	1405.99	1405.99	1405.99	1405.99	1405.99
50th (median)	1211.57	1211.57	1211.57	1211.57	1211.57	1211.57
25th	1081.51	1081.51	1081.51	1081.51	1081.51	1081.51
5th	815.81	815.81	815.81	815.81	815.81	815.81
1st	178.20	178.20	178.20	178.20	178.20	178.20
Range	1311.75	1311.75	1311.75	1311.75	1311.75	1311.75
Restricted range	1097.54	1097.54	1097.54	1097.54	1097.54	1097.54
Restricted range ratio	1.348	1.348	1.348	1.348	1.348	1.348
Mean deviation from median	225.23	225.23	225.23	225.23	225.23	225.23
Relative deviation from median	0.186	0.186	0.186	0.186	0.186	0.186
Mean	1211.57	1211.57	1211.57	1211.57	1211.57	1211.57
Standard deviation	297.437	297.437	297.437	297.437	297.437	297.437
Coefficient of variation	0.243	0.243	0.243	0.243	0.243	0.243
Mean deviation from mean	231.30	231.30	231.30	231.30	231.30	231.30
Relative deviation from mean	0.182	0.182	0.182	0.182	0.182	0.182
Gini coefficient	0.129	0.129	0.129	0.129	0.129	0.129
Regression results						
Adj. wealth: Linear F	103.011	99.999	90.313	103.120	85.637	87.187
Elasticity	0.380	0.402	0.365	0.383	0.350	0.346
Quadratic F	63.310	49.325	61.444	59.258	42.200	55.676
Elasticity	0.497	0.411	0.494	0.471	0.349	0.444
Income: Linear F	5.105	2.025	1.948	3.420	2.708	3.334
Elasticity	0.207	0.121	0.133	0.196	0.145	0.180
Quadratic F	2.488	2.465	3.661	1.689	2.116	3.887
Elasticity	0.201	0.204	0.221	0.176	0.204	0.240
Adj. tax rate: Linear F	1.916	14.354	0.177	1.378	23.264	1.525
Elasticity	-0.140	0.505	0.060	-0.117	0.529	0.166
Quadratic F	0.994	9.682	0.920	0.856	13.722	1.343
Elasticity	-0.131	0.515	0.039	-0.097	0.549	0.145
Mean for adj. wealth decile						
1st	815.81	985.38	1114.21	802.58	949.55	1112.95
2nd	1153.40	1222.29	1334.90	954.96	1091.71	1191.96
3rd	1170.64	1305.00	1392.52	1217.97	1280.82	1331.72
4th	1167.08	1208.26	1373.11	1151.20	1307.48	1448.69
5th	1199.13	1187.51	1499.62	1144.83	1167.21	1323.77
6th	1263.88	1250.55	1455.12	1170.72	1204.97	1490.19
7th	1241.42	1379.64	1658.31	1252.77	1242.43	1528.35
8th	1397.64	1367.82	1796.92	1267.01	1374.80	1705.90
9th	1530.33	1559.90	1822.39	1353.48	1327.02	1685.34
10th	1786.20	1942.83	2276.48	1685.21	1792.62	2057.10
Mean for income decile						
1st	1189.50	1226.13	1256.98	1176.90	1252.34	1234.00
2nd	1120.85	1169.78	1370.01	1186.66	1146.48	1343.10
3rd	953.14	1106.24	1171.00	889.64	1131.09	1211.43
4th	962.52	1093.96	1669.59	975.83	1036.72	1256.06
5th	1155.36	1283.80	1642.22	932.46	1163.85	1782.53
6th	1175.17	1362.84	1405.76	1182.50	1316.90	1443.93
7th	1203.56	1292.02	1631.25	1201.87	1282.48	1469.80
8th	1130.28	1356.64	1552.42	1176.09	1336.21	1655.45
9th	1376.02	1374.17	1525.91	1174.22	1372.12	1493.26
10th	1337.97	1241.40	1418.91	1375.01	1235.09	1404.08
Mean for district type						
Below median ADM	1441.36	1492.04	1757.61	1367.24	1403.21	1682.62
Above median ADM	1103.75	1189.80	1387.10	1032.90	1144.51	1292.57
Below median % urban	1192.50	1295.09	1438.22	1181.38	1279.30	1419.81
Above median % urban	1128.37	1206.30	1490.59	1072.86	1175.36	1438.92
Below median % white	1056.22	1193.69	1461.75	1028.55	1173.10	1424.97
Above median % white	1264.66	1307.71	1467.06	1225.69	1281.55	1433.76
Below median % poverty	1151.30	1291.01	1593.35	1109.56	1271.80	1558.87
Above median % poverty	1169.57	1210.38	1335.46	1144.68	1182.85	1299.85
Correlation with						
ADM	-0.742	-0.643	-0.675	-0.743	-0.608	-0.657
Adj. wealth	0.785	0.769	0.748	0.786	0.744	0.742
Income	0.344	0.212	0.200	0.287	0.243	0.257
% Urban	-0.322	-0.230	-0.201	-0.319	-0.218	-0.187
% White	0.323	0.373	0.244	0.319	0.399	0.243
% Poverty	0.014	-0.249	-0.385	0.053	-0.262	-0.395
Adj. tax rate	-0.170	0.415	0.050	-0.145	0.502	0.145
Gini by adj. wealth distribution	0.162	0.163	0.159	0.158	0.171	0.161
Gini by income distribution	0.144	0.137	0.152	0.140	0.137	0.150

Table A-1  
DISTRIBUTION OF LOCAL + STATE REVENUE PER PUPIL  
IN KANSAS DISTRICTS WITH ADM REVENUE 400

Measure	1971-72	Unweighted 1973-74	1971-75	Weighted 1972-73	1973-74	1974-75
Percentile						
100th	2169.92	2816.86	3014.42	2169.92	2816.86	3014.42
95th	1971.78	2089.43	2512.88	1878.57	1883.36	2251.57
75th	1548.83	1562.59	1831.59	1444.82	1484.47	1777.52
50th (median)	1274.40	1384.60	1584.45	1224.84	1316.90	1539.68
25th	1139.70	1242.79	1457.74	1062.56	1193.65	1395.45
5th	877.84	977.03	1153.75	843.83	972.83	1081.46
1st	736.43	781.95	1030.64	736.45	781.95	1030.64
Range	1433.47	2034.91	1983.78	1433.47	2034.91	1983.78
Restricted range	1093.94	1112.41	1339.12	1034.79	910.53	1170.16
Restricted range ratio	1.246	1.139	1.178	1.226	0.936	1.082
Mean deviation from median	253.51	235.45	291.73	230.21	206.11	253.70
Relative deviation from median	0.199	0.170	0.184	0.188	0.157	0.165
Mean	1343.57	1436.46	1684.72	1266.90	1367.15	1595.91
Standard deviation	321.891	323.167	393.299	298.504	283.933	347.294
Coefficient of variation	0.240	0.232	0.233	0.236	0.208	0.218
Mean deviation from mean	258.29	236.85	304.09	213.78	207.50	262.19
Relative deviation from mean	0.192	0.165	0.180	0.185	0.152	0.164
Gini coefficient	0.134	0.121	0.127	0.131	0.110	0.118
Regression results						
Adj. wealth: Linear F	95.906	104.174	91.199	95.149	90.775	88.783
Elasticity	0.384	0.396	0.355	0.389	0.354	0.341
Quadratic F	62.824	52.374	66.373	57.291	45.298	60.311
Elasticity	0.521	0.426	0.493	0.493	0.373	0.448
Income: Linear F	3.858	1.156	2.018	2.217	1.502	3.329
Elasticity	0.196	0.099	0.138	0.173	0.119	0.182
Quadratic F	1.937	1.554	3.341	1.193	1.252	3.616
Elasticity	0.163	0.174	0.221	0.125	0.173	0.240
Adj. tax rate: Linear F	1.895	14.929	0.145	1.431	23.726	1.366
Elasticity	-0.142	0.501	0.052	-0.123	0.533	0.155
Quadratic F	1.100	9.413	0.675	1.073	13.348	1.075
Elasticity	-0.126	0.510	0.035	-0.093	0.550	0.137
Mean for adj. wealth decile						
1st	860.20	1029.07	1182.40	843.61	983.29	1172.88
2nd	1165.82	1273.46	1421.17	1011.25	1158.63	1272.20
3rd	1232.89	1425.20	1495.26	1229.32	1374.75	1426.08
4th	1210.69	1295.53	1498.60	1216.28	1408.43	1566.93
5th	1313.52	1289.56	1616.83	1179.02	1251.47	1450.82
6th	1342.43	1352.47	1586.49	1294.53	1306.29	1604.08
7th	1317.79	1491.28	1773.05	1337.22	1347.91	1657.58
8th	1470.17	1501.45	1918.88	1343.30	1493.00	1827.24
9th	1644.39	1662.34	1953.16	1430.67	1449.73	1797.12
10th	1877.79	2044.24	2401.36	1783.84	1898.03	2184.12
Mean for income decile						
1st	1283.75	1322.38	1366.75	1237.13	1353.15	1346.25
2nd	1185.15	1305.52	1460.55	1300.63	1285.73	1448.56
3rd	1021.60	1196.60	1234.32	941.56	1220.51	1252.08
4th	1012.85	1163.67	1792.79	1043.80	1112.88	1359.84
5th	1225.00	1392.46	1774.14	981.17	1251.10	1902.01
6th	1227.62	1475.31	1527.40	1253.96	1427.08	1571.63
7th	1257.85	1391.06	1734.01	1250.47	1382.22	1581.70
8th	1143.24	1424.05	1667.67	1233.37	1402.30	1768.20
9th	1453.17	1474.83	1636.01	1189.72	1472.38	1606.74
10th	1431.16	1323.53	1527.97	1470.18	1311.85	1510.56
Mean for district type						
Below median ADM	1522.92	1593.39	1876.70	1444.73	1502.94	1806.42
Above median ADM	1164.22	1279.53	1492.74	1089.08	1231.37	1385.39
Below median % urban	1273.27	1406.19	1551.49	1263.95	1390.72	1530.54
Above median % urban	1175.00	1287.69	1592.83	1116.46	1253.12	1538.98
Below median % white	1115.66	1288.43	1564.00	1090.82	1266.51	1522.89
Above median % white	1332.62	1405.45	1580.32	1289.58	1377.33	1546.62
Below median % poverty	1215.87	1392.88	1712.17	1173.14	1373.41	1674.23
Above median % poverty	1232.40	1301.00	1432.15	1207.26	1270.43	1395.29
Correlation with						
ADM	-0.725	-0.635	-0.679	-0.708	-0.595	-0.654
Adj. wealth	0.774	0.776	0.750	0.773	0.754	0.745
Income	0.304	0.162	0.203	0.235	0.184	0.257
% Urban	-0.318	-0.255	-0.237	-0.316	-0.242	-0.224
% White	0.389	0.421	0.287	0.381	0.438	0.286
% Poverty	-0.067	-0.260	-0.380	-0.039	-0.273	-0.391
Adj. tax rate	-0.170	0.422	0.045	-0.148	0.506	0.137
Gini by adj. wealth distribution	0.161	0.160	0.160	0.158	0.167	0.161
Gini by income distribution	0.151	0.145	0.153	0.148	0.146	0.151

Table A.34  
DISTRIBUTION OF LOCAL + STATE + PL874 REVENUE PER PUPIL  
IN KANSAS DISTRICTS WITH ADM BELOW 400

Measure	1972-73	Unweighted 1973-74	1974-75	1972-73	Weighted 1973-74	1974-75
Percentile						
100th	2169.92	2816.86	3014.42	2169.92	2816.86	3014.42
95th	1971.78	2089.43	2512.88	1878.57	1883.36	2231.57
75th	1548.85	1576.39	1904.44	1444.02	1500.58	1777.52
50th (median)	1277.55	1384.60	1597.36	1240.38	1334.95	1541.05
25th	1143.02	1254.05	1457.74	1120.94	1193.65	1396.53
5th	889.77	1037.12	1153.75	843.83	973.91	1081.40
1st	736.45	784.03	1030.64	736.45	784.03	1030.64
Range	1433.47	2032.83	1983.78	1433.47	2032.83	1983.78
Restricted range	1082.00	1052.31	1359.12	1034.73	909.45	1170.16
Restricted range ratio	1.216	1.015	1.178	1.226	0.934	1.082
Mean deviation from median	245.25	232.90	289.85	222.08	202.62	252.21
Relative deviation from median	0.192	0.168	0.181	0.179	0.152	0.163
Mean	1351.83	1443.86	1692.02	1276.66	1375.32	1603.37
Standard deviation	315.328	329.530	390.978	292.161	280.478	345.741
Coefficient of variation	0.233	0.228	0.231	0.229	0.204	0.216
Mean deviation from mean	250.86	235.39	303.14	225.98	204.67	260.84
Relative deviation from mean	0.186	0.163	0.179	0.177	0.149	0.163
Gini coefficient	0.130	0.119	0.125	0.126	0.108	0.117
Regression results						
Adj. wealth: Linear F	95.714	99.481	85.829	95.481	86.581	83.103
Elasticity	0.374	0.386	0.347	0.378	0.344	0.333
Quadratic F	62.121	49.785	60.688	57.475	43.110	55.337
Elasticity	0.505	0.412	0.479	0.479	0.361	0.436
Income: Linear F	3.583	1.021	1.959	1.978	1.353	3.260
Elasticity	0.183	0.090	0.133	0.158	0.109	0.177
Quadratic F	1.837	1.495	3.357	1.124	1.181	3.623
Elasticity	0.142	0.163	0.216	0.103	0.162	0.235
Adj. tax rate: Linear F	1.932	15.250	0.333	1.556	24.372	1.895
Elasticity	-0.140	0.497	0.079	-0.125	0.528	0.180
Quadratic F	1.116	9.745	1.034	1.129	13.876	1.551
Elasticity	-0.124	0.506	0.058	-0.096	0.546	0.158
Mean for adj. wealth decile						
1st	868.37	1036.28	1189.58	847.92	993.48	1182.90
2nd	1198.64	1309.69	1444.44	1019.80	1164.40	1286.82
3rd	1240.96	1425.20	1535.22	1265.62	1406.69	1456.32
4th	1241.58	1323.57	1498.60	1221.15	1408.74	1584.65
5th	1316.16	1292.27	1619.39	1218.80	1284.97	1450.82
6th	1342.43	1352.47	1586.49	1298.26	1306.29	1606.11
7th	1317.79	1491.28	1773.05	1337.22	1347.91	1657.58
8th	1470.17	1501.45	1918.88	1343.30	1493.00	1827.24
9th	1644.39	1662.34	1953.16	1430.67	1449.73	1797.12
10th	1877.79	2044.24	2401.36	1783.84	1898.03	2184.12
Mean for income decile						
1st	1334.72	1340.01	1396.29	1293.84	1353.15	1357.91
2nd	1188.88	1327.09	1469.36	1300.64	1327.10	1473.39
3rd	1031.35	1199.06	1234.32	953.06	1223.12	1256.09
4th	1012.85	1170.64	1792.79	1050.63	1113.50	1359.84
5th	1229.36	1392.46	1781.08	986.23	1259.99	1910.20
6th	1227.62	1475.31	1527.40	1254.21	1427.08	1571.63
7th	1261.73	1393.13	1735.15	1253.64	1382.22	1581.70
8th	1171.48	1444.02	1676.79	1233.37	1421.83	1771.63
9th	1462.60	1481.95	1654.49	1225.01	1477.69	1626.18
10th	1431.16	1323.53	1527.97	1470.18	1311.85	1510.56
Mean for district type						
Below median ADM	1527.67	1599.16	1885.22	1449.07	1510.59	1813.89
Above median ADM	1175.98	1288.60	1498.82	1104.25	1240.06	1392.85
Below median % urban	1275.94	1408.44	1553.54	1266.08	1392.36	1533.74
Above median % urban	1194.41	1301.00	1605.58	1138.08	1267.15	1550.09
Below median % white	1126.76	1296.11	1574.76	1102.60	1273.96	1536.67
Above median % white	1343.59	1413.33	1584.37	1301.56	1385.55	1547.15
Below median % poverty	1221.23	1397.31	1716.36	1178.94	1377.89	1678.35
Above median % poverty	1249.12	1312.13	1442.77	1225.22	1281.61	1405.48
Correlation with						
ADM	-0.726	-0.635	-0.682	-0.712	-0.599	-0.660
Adj. wealth	0.774	0.768	0.740	0.774	0.746	0.734
Income	0.294	0.152	0.200	0.222	0.175	0.255
% Urban	-0.335	-0.269	-0.244	-0.334	-0.255	-0.230
% White	0.365	0.411	0.269	0.359	0.432	0.271
% Poverty	-0.010	-0.228	-0.358	0.025	-0.241	-0.371
Adj. tax rate	-0.171	0.425	0.068	-0.154	0.511	0.161
Gini by adj. wealth distribution	0.163	0.162	0.163	0.159	0.169	0.163
Gini by income distribution	0.150	0.144	0.152	0.147	0.146	0.151

TABLE A-1  
DISTRIBUTION OF INSTRUCTIONAL EXPENDITURES PER PUPIL  
IN KANSAS DISTRICTS WITH ADM BELOW 400

Measure	1972-73	Inweighted 1973-74	1974-75	1975-76	Weighted 1976-77	1977-78
Percentile						
100th	1366.00	1455.46	1575.73	1561.00	1455.46	1575.73
95th	1151.65	1119.42	1435.86	1014.20	1029.00	1159.14
75th	893.00	851.60	956.08	798.60	829.08	917.48
50th (median)	744.44	736.71	858.76	727.51	745.04	831.46
25th	676.45	706.08	754.36	626.24	678.18	731.52
5th	542.86	552.94	637.60	536.38	550.87	648.89
1st	504.66	437.84	575.61	504.66	437.84	575.61
Range	861.34	1017.62	1000.08	861.34	1017.62	1000.08
Restricted range	628.78	566.49	704.25	478.82	478.13	510.26
Restricted range ratio	1.158	1.025	1.081	0.894	0.868	0.786
Mean deviation from median	133.00	128.29	142.63	114.29	111.14	123.70
Relative deviation from median	0.179	0.166	0.166	0.157	0.149	0.149
Mean	786.26	795.82	887.11	746.37	760.53	847.72
Standard deviation	180.183	186.051	196.861	157.604	159.564	165.724
Coefficient of variation	0.229	0.233	0.222	0.211	0.210	0.195
Mean deviation from mean	137.28	130.65	144.58	115.86	112.55	124.60
Relative deviation from mean	0.175	0.164	0.163	0.155	0.148	0.147
Gini coefficient	0.124	0.120	0.117	0.114	0.109	0.104
Regression results						
Adj. wealth: Linear F	75.621	134.305	94.157	71.672	112.522	80.854
Elasticity	0.349	0.416	0.340	0.327	0.374	0.300
Quadratic F	41.709	66.190	48.526	37.523	55.457	40.932
Elasticity	0.434	0.414	0.385	0.381	0.371	0.328
Income: Linear F	2.805	1.014	2.851	1.928	2.235	5.206
Elasticity	0.139	0.092	0.134	0.131	0.144	0.183
Quadratic F	1.609	3.085	3.923	0.998	2.559	4.293
Elasticity	0.195	0.209	0.205	0.159	0.232	0.226
Adj. tax rate: Linear F	2.483	10.015	0.026	1.983	16.312	1.250
Elasticity	-0.155	0.425	0.021	-0.129	0.465	0.133
Quadratic F	1.234	9.551	3.129	0.985	11.297	3.368
Elasticity	-0.159	0.438	-0.016	-0.125	0.491	0.093
Mean for adj. wealth decile						
1st	564.60	580.12	691.57	563.92	560.75	681.80
2nd	742.54	726.79	808.16	648.45	655.46	738.07
3rd	700.46	753.61	820.96	730.21	736.55	797.05
4th	690.00	690.18	802.76	708.52	743.34	844.51
5th	742.45	723.73	808.15	673.42	705.49	792.80
6th	746.39	762.74	821.66	749.86	717.78	806.04
7th	798.61	847.08	867.44	735.73	782.52	842.23
8th	833.47	832.93	1000.66	807.99	820.74	900.44
9th	947.09	926.84	963.74	813.93	832.73	925.23
10th	1096.99	1144.16	1285.95	1031.68	1049.97	1148.98
Mean for income decile						
1st	747.44	705.15	738.87	720.67	713.83	736.47
2nd	692.21	742.00	773.76	769.81	707.08	763.45
3rd	635.89	628.71	686.64	577.91	664.43	686.02
4th	648.58	661.73	907.99	673.22	603.81	745.36
5th	703.01	799.24	944.50	615.19	739.24	972.17
6th	707.80	828.77	826.65	741.83	797.18	871.57
7th	716.63	747.94	864.28	689.20	770.81	820.04
8th	713.89	795.17	813.74	737.81	780.51	871.54
9th	877.75	793.12	909.18	728.07	796.84	877.16
10th	786.90	742.92	854.89	846.01	753.74	863.66
Mean for district type						
Below median ADM	876.30	877.24	972.86	830.30	833.62	928.17
Above median ADM	696.22	720.40	801.36	662.44	687.45	767.26
Below median % urban	729.28	768.18	827.52	726.25	766.70	823.62
Above median % urban	716.74	720.77	836.58	693.69	698.80	817.87
Below median % white	677.99	711.81	813.03	668.23	696.92	796.72
Above median % white	768.04	777.14	851.07	751.71	768.58	844.77
Below median % poverty	744.28	774.63	869.07	725.70	765.88	863.20
Above median % poverty	701.74	714.32	795.03	694.24	699.61	778.29
Correlation with						
ADM	-0.674	-0.628	-0.602	-0.636	-0.590	-0.553
Adj. wealth	0.736	0.813	0.755	0.727	0.787	0.730
Income	0.262	0.152	0.239	0.220	0.222	0.316
% Urban	-0.298	-0.238	-0.251	-0.301	-0.225	-0.245
% White	0.263	0.344	0.146	0.265	0.378	0.170
% Poverty	-0.236	-0.337	-0.238	-0.200	-0.355	-0.267
Adj. tax rate	-0.193	0.356	0.019	-0.173	0.437	0.132
Gini by adj. wealth distribution	0.172	0.155	0.173	0.173	0.162	0.178
Gini by income distribution	0.139	0.142	0.140	0.133	0.141	0.138

Table A.36  
DISTRIBUTION OF LOCAL ADJUSTED TAX RATES  
IN KANSAS DISTRICTS WITH ADM BELOW 400

Measure	Unweighted			Weighted		
	1972-73	1973-74	1974-75	1972-73	1973-74	1974-75
Percentile						
100th	10.25	8.66	9.71	10.25	8.66	9.71
95th	6.86	7.55	7.97	6.83	7.45	8.01
75th	5.88	6.53	6.55	5.89	6.42	6.55
50th (median)	5.07	5.74	5.87	5.08	5.72	5.87
25th	3.97	5.17	4.94	3.98	5.05	5.15
5th	2.68	3.74	4.40	2.72	3.73	4.40
1st	1.87	2.98	2.31	1.87	2.98	2.31
Range	8.39	5.68	7.40	8.39	5.68	7.40
Restricted range	4.18	3.80	3.57	4.11	3.72	3.61
Restricted range ratio	1.556	1.016	0.813	1.509	0.996	0.821
Mean deviation from median	1.09	0.87	0.92	1.09	0.87	0.89
Relative deviation from median	0.215	0.152	0.156	0.214	0.151	0.152
Mean	4.96	5.81	5.88	5.03	5.67	5.91
Standard deviation	1.418	1.134	1.180	1.425	1.117	1.142
Coefficient of variation	0.286	0.195	0.201	0.283	0.197	0.193
Mean deviation from mean	1.10	0.87	0.92	1.09	0.87	0.89
Relative deviation from mean	0.221	0.151	0.156	0.216	0.154	0.151
Gini coefficient	0.157	0.109	0.111	0.154	0.111	0.107
Regression results						
Adj. wealth: Linear F	37.705	0.703	20.596	33.283	4.320	12.628
Elasticity	-0.360	0.043	-0.193	-0.353	0.108	-0.158
Quadratic F	21.279	15.073	10.606	19.624	14.707	6.728
Elasticity	-0.474	0.247	-0.159	-0.471	0.269	-0.124
Income: Linear F	1.729	0.095	1.581	0.593	0.474	2.719
Elasticity	-0.215	0.034	0.117	-0.140	0.080	0.152
Quadratic F	1.160	4.637	1.518	0.614	4.187	1.982
Elasticity	-0.086	0.217	0.163	-0.011	0.249	0.184
Mean for adj. wealth decile						
1st	6.00	4.72	6.14	6.02	4.64	6.12
2nd	6.57	5.04	6.61	6.08	4.23	5.97
3rd	5.40	5.78	6.45	6.39	5.71	6.49
4th	5.11	5.76	5.97	5.20	5.83	6.68
5th	5.19	5.82	6.04	4.94	5.88	5.67
6th	4.83	5.97	5.53	4.81	5.67	6.06
7th	4.16	6.68	5.80	4.77	6.30	5.61
8th	4.63	6.26	6.14	4.22	6.41	5.98
9th	4.59	6.47	5.33	4.18	5.98	5.50
10th	3.15	5.55	4.79	3.72	6.00	5.04
Mean for income decile						
1st	4.64	5.14	5.42	4.49	5.17	5.29
2nd	5.52	5.16	6.42	5.25	5.06	6.49
3rd	5.71	5.78	5.46	6.46	5.85	5.87
4th	6.03	5.42	6.11	5.52	4.85	5.44
5th	4.33	5.78	6.62	4.76	5.58	6.55
6th	5.94	6.32	6.45	5.23	6.02	5.90
7th	4.23	6.20	6.45	5.79	6.28	6.57
8th	5.26	6.50	6.06	3.93	6.30	6.32
9th	5.35	6.37	5.69	5.45	6.57	5.84
10th	4.35	4.93	6.51	4.90	4.98	6.56
Mean for district type						
Below median ADM	4.69	6.10	5.79	4.90	6.10	5.89
Above median ADM	5.24	5.52	5.97	5.16	5.23	5.93
Below median % urban	5.17	5.82	5.94	5.18	5.77	5.91
Above median % urban	5.10	5.70	6.30	5.18	5.56	6.25
Below median % white	5.27	5.61	6.20	5.47	5.55	6.16
Above median % white	5.00	5.91	6.04	4.89	5.78	6.00
Below median % poverty	4.82	5.88	6.35	4.90	5.81	6.32
Above median % poverty	5.45	5.64	5.89	5.46	5.52	5.85
Correlation with						
ADM	0.148	-0.380	0.088	0.105	-0.390	0.011
Adj. wealth	-0.609	0.100	-0.474	-0.585	0.243	-0.389
Income	-0.209	0.047	0.180	-0.124	0.104	0.234
% Urban	0.566	-0.023	0.188	0.582	-0.009	0.193
% White	-0.539	0.160	-0.107	-0.551	0.163	-0.116
% Poverty	0.185	-0.159	-0.268	0.191	-0.163	-0.298
Gini by adj. wealth distribution	0.353	0.219	0.300	0.343	0.206	0.286
Gini by income distribution	0.223	0.147	0.155	0.205	0.146	0.154

TABLE A-3  
DISTRIBUTION OF GENERAL REVENUE PER FAMIL EXCLUDING INCOME TAX  
IN KANSAS DISTRICTS WITH ADM BETWEEN 400 AND 120

Measure	1972-73	Unweighted 1973-74	1974-75	1975-76	Weighted 1973-74	1974-75
Percentile						
100th	1371.87	1624.57	2151.85	1577.67	1624.57	2151.85
95th	1261.46	1572.42	1980.54	1517.35	1579.34	1950.68
75th	1061.37	1103.39	1222.06	976.75	1085.90	1206.57
50th (median)	887.96	998.72	1063.74	872.54	982.53	1067.27
25th	760.42	886.64	959.48	728.05	862.44	940.56
5th	632.53	731.81	816.95	611.99	718.76	799.06
1st	523.38	688.61	598.73	525.38	688.61	598.73
Range	1048.29	935.96	1557.12	1048.29	935.96	1557.12
Restricted range	630.87	644.61	669.56	599.36	640.58	651.64
Restricted range ratio	0.997	0.886	0.826	0.979	0.891	0.816
Mean deviation from median	150.72	141.53	160.08	146.71	138.88	156.85
Relative deviation from median	0.170	0.142	0.148	0.168	0.141	0.147
Mean	899.03	1009.20	1110.52	875.87	986.74	1085.37
Standard deviation	190.611	183.305	219.573	185.353	179.062	213.551
Coefficient of variation	0.212	0.182	0.198	0.212	0.181	0.197
Mean deviation from mean	150.97	141.68	161.70	146.74	138.98	158.22
Relative deviation from mean	0.168	0.140	0.146	0.168	0.141	0.146
Gini coefficient	0.119	0.100	0.105	0.118	0.100	0.105
Regression results						
Adj. wealth: Linear F	287.312	203.317	223.177	289.363	200.201	220.280
Elasticity	0.365	0.276	0.298	0.363	0.271	0.282
Quadratic F	163.810	116.166	129.872	163.510	114.010	129.118
Elasticity	0.441	0.344	0.364	0.437	0.340	0.354
Income: Linear F	10.748	14.799	29.662	10.205	17.435	30.841
Elasticity	0.256	0.261	0.384	0.259	0.288	0.398
Quadratic F	6.661	7.936	19.421	5.998	8.975	19.220
Elasticity	0.226	0.248	0.332	0.232	0.281	0.369
Adj. tax rate: Linear F	9.371	46.836	10.436	11.661	38.523	6.738
Elasticity	-0.168	0.372	0.270	-0.187	0.332	0.218
Quadratic F	6.252	29.490	8.891	6.873	26.054	8.838
Elasticity	-0.211	0.447	0.234	-0.220	0.429	0.170
Mean for adj. wealth decile						
1st	652.33	813.70	861.22	643.64	799.94	851.10
2nd	749.73	872.32	960.09	734.63	835.50	938.94
3rd	733.70	862.90	954.78	729.09	892.85	950.39
4th	860.62	979.81	999.48	817.87	908.66	1004.81
5th	902.37	988.90	1059.64	869.26	1008.78	991.03
6th	904.60	968.37	1135.02	865.63	940.47	1112.12
7th	943.96	1091.93	1152.49	943.31	1013.04	1102.41
8th	1020.30	1096.26	1220.33	964.79	1077.99	1232.76
9th	1011.39	1104.62	1297.69	1030.13	1117.58	1249.36
10th	1211.26	1313.16	1464.48	1160.38	1272.58	1420.79
Mean for income decile						
1st	819.77	911.44	1056.28	782.82	882.12	1006.87
2nd	926.19	981.64	1005.21	882.85	929.25	979.61
3rd	829.80	963.05	1068.04	828.62	948.12	1038.34
4th	835.17	1011.56	1051.01	846.11	1000.24	1076.02
5th	919.45	977.16	1083.13	894.91	1011.27	1043.93
6th	902.11	1073.27	1094.90	904.43	1032.00	1058.93
7th	905.41	1021.17	1094.44	832.96	973.62	1080.32
8th	916.89	1000.86	1122.27	902.12	964.30	1091.69
9th	866.57	996.03	1178.05	845.30	1007.17	1171.71
10th	1048.54	1146.97	1345.84	1023.89	1112.46	1300.15
Mean for district type						
Below median ADM	952.39	1068.05	1176.34	943.44	1048.96	1157.65
Above median ADM	845.66	950.35	1044.71	808.31	924.51	1013.09
Below median % urban	947.24	1031.03	1143.65	920.71	1016.49	1121.91
Above median % urban	846.74	985.60	1076.19	828.10	955.62	1047.60
Below median % white	843.74	960.36	1058.12	828.14	949.09	1048.96
Above median % white	950.24	1056.27	1161.72	920.66	1023.02	1120.56
Below median % poverty	902.25	1012.22	1128.86	874.26	980.57	1091.31
Above median % poverty	891.73	1004.42	1090.97	874.55	991.54	1078.21
Correlation with						
ADM	-0.380	-0.371	-0.349	-0.416	-0.395	-0.377
Adj. wealth	0.790	0.738	0.756	0.791	0.735	0.754
Income	0.243	0.284	0.390	0.237	0.306	0.397
% Urban	-0.190	-0.119	-0.133	-0.198	-0.115	-0.137
% White	0.323	0.294	0.283	0.310	0.289	0.264
% Poverty	-0.102	-0.031	-0.128	-0.057	0.005	-0.084
Adj. tax rate	-0.227	0.465	0.243	-0.251	0.430	0.197
Gini by adj. wealth distribution	0.162	0.187	0.188	0.162	0.188	0.194
Gini by income distribution	0.140	0.125	0.122	0.137	0.121	0.120



Table A.38  
DISTRIBUTION OF GENERAL REVENUE PER PUPIL  
IN KANSAS DISTRICTS WITH ADM BETWEEN 400 AND 1299

Measure	Unweighted			Weighted		
	1972-73	1973-74	1974-75	1972-73	1973-74	1974-75
Percentile						
100th	1571.67	1631.40	2201.38	1571.67	1631.40	2201.38
95th	1263.40	1376.81	1538.42	1211.35	1364.60	1482.13
75th	1001.37	1108.40	1259.74	976.75	1091.55	1239.60
50th (median)	887.96	1002.21	1112.36	872.54	983.78	1089.75
25th	760.42	889.85	985.22	728.05	868.19	959.94
5th	632.53	742.73	834.38	611.99	722.52	819.13
1st	523.38	688.61	626.45	523.38	688.61	626.45
Range	1048.29	942.79	1574.93	1048.29	942.79	1574.93
Restricted range	630.87	634.09	704.04	599.36	642.08	663.00
Restricted range ratio	0.997	0.854	0.844	0.979	0.889	0.809
Mean deviation from median	150.72	141.53	166.88	146.71	138.75	163.48
Relative deviation from median	0.170	0.141	0.150	0.168	0.141	0.150
Mean	899.03	1013.34	1140.03	875.87	990.91	1114.32
Standard deviation	190.611	183.469	227.148	185.353	179.169	220.839
Coefficient of variation	0.212	0.181	0.199	0.212	0.181	0.198
Mean deviation from mean	150.97	141.74	168.92	146.74	138.92	164.81
Relative deviation from mean	0.168	0.140	0.148	0.168	0.140	0.148
Gini coefficient	0.119	0.100	0.107	0.118	0.100	0.106
Regression results						
Adj. wealth: Linear F	287.312	205.305	237.313	289.363	202.113	234.405
Elasticity	0.365	0.276	0.304	0.363	0.270	0.288
Quadratic F	163.810	117.129	139.387	163.510	114.905	139.043
Elasticity	0.441	0.344	0.372	0.437	0.339	0.363
Income: Linear F	10.748	14.980	31.420	10.205	17.671	32.874
Elasticity	0.256	0.261	0.397	0.259	0.289	0.412
Quadratic F	6.661	8.054	20.401	5.998	9.117	20.396
Elasticity	0.226	0.249	0.344	0.232	0.281	0.383
Adj. tax rate: Linear F	9.371	46.865	9.936	11.661	38.615	6.347
Elasticity	-0.168	0.371	0.265	-0.187	0.331	0.214
Quadratic F	6.252	29.539	8.530	6.873	26.158	8.594
Elasticity	-0.211	0.446	0.230	-0.220	0.428	0.165
Mean for adj. wealth decile						
1st	652.33	817.51	880.07	643.64	803.66	869.47
2nd	749.73	877.62	979.38	734.63	841.24	958.75
3rd	733.70	866.03	976.53	729.09	896.52	971.46
4th	860.62	983.34	1025.80	817.87	911.97	1029.67
5th	902.37	992.48	1089.14	869.26	1012.52	1016.92
6th	904.60	971.67	1163.87	865.63	943.71	1143.81
7th	943.96	1096.12	1184.27	943.31	1016.74	1132.84
8th	1020.30	1100.51	1253.17	964.79	1082.29	1267.35
9th	1011.39	1109.83	1336.82	1030.13	1122.57	1286.45
10th	1211.26	1318.27	1511.24	1160.38	1277.84	1466.48
Mean for income decile						
1st	819.77	915.79	1079.87	782.82	886.48	1028.98
2nd	926.19	985.24	1031.18	882.85	932.74	1005.72
3rd	829.80	966.43	1095.25	828.62	951.40	1064.35
4th	835.17	1015.98	1075.13	846.11	1004.41	1101.72
5th	919.45	981.19	1110.16	894.91	1015.52	1071.86
6th	902.11	1077.69	1123.66	904.43	1036.21	1082.52
7th	905.41	1024.62	1124.44	832.96	976.98	1109.80
8th	916.89	1005.23	1155.65	902.12	969.59	1125.03
9th	866.57	999.69	1210.37	845.30	1010.70	1204.62
10th	1048.54	1152.70	1388.56	1023.89	1118.20	1342.53
Mean for district type						
Below median ADM	952.39	1072.16	1207.30	943.44	1053.05	1187.95
Above median ADM	845.66	954.52	1072.76	808.31	928.77	1040.69
Below median % urban	947.24	1035.38	1174.00	920.71	1020.69	1150.97
Above median % urban	846.74	989.53	1104.85	828.10	959.76	1076.45
Below median % white	843.74	964.48	1085.62	828.14	953.28	1076.56
Above median % white	950.24	1060.43	1193.23	920.66	1027.17	1150.87
Below median % poverty	902.25	1016.46	1159.35	874.26	984.93	1120.63
Above median % poverty	891.73	1008.45	1119.50	874.55	995.51	1106.80
Correlation with						
ADM	-0.380	-0.371	-0.344	-0.416	-0.394	-0.372
Adj. wealth	0.790	0.740	0.766	0.791	0.737	0.764
Income	0.243	0.285	0.400	0.237	0.308	0.408
% Urban	-0.190	-0.118	-0.128	-0.198	-0.113	-0.130
% White	0.323	0.293	0.285	0.310	0.287	0.266
% Poverty	-0.102	-0.032	-0.132	-0.057	0.004	-0.086
Adj. tax rate	-0.227	0.465	0.237	-0.251	0.430	0.191
Gini by adj. wealth distribution	0.162	0.187	0.186	0.162	0.188	0.192
Gini by income distribution	0.140	0.124	0.122	0.137	0.121	0.119

Table A. 3  
DISTRIBUTION OF GENERAL + STATE REVENUE PER POPUL  
IN KANSAS DISTRICTS WITH ADM BETWEEN 400 AND 1,100

Measure	1972-73	Unweighted 1973-74	1974-75	1972-73	Weighted 1973-74	1974-75
Percentile						
100th	1571.67	1631.46	2291.38	1571.67	1631.46	2291.38
95th	1263.60	1376.81	1538.43	1211.33	1361.60	1482.13
75th	1009.68	1108.40	1266.20	976.75	1091.65	1139.69
50th (median)	887.98	1005.05	1119.21	875.44	983.78	1100.79
25th	767.04	901.02	992.80	747.44	879.16	972.23
5th	651.46	743.62	842.60	638.00	732.50	829.37
1st	523.38	694.36	620.65	523.38	694.36	620.65
Range	1048.29	937.04	1574.93	1048.29	937.04	1574.93
Restricted range	621.94	633.20	696.02	573.35	652.01	652.76
Restricted range ratio	0.970	0.852	0.826	0.899	0.863	0.787
Mean deviation from median	147.31	138.40	164.07	145.10	135.63	160.67
Relative deviation from median	0.166	0.138	0.147	0.163	0.138	0.146
Mean	903.91	1018.03	1144.68	880.90	995.98	1119.14
Standard deviation	187.081	179.988	224.458	181.789	175.857	218.257
Coefficient of variation	0.207	0.177	0.196	0.206	0.177	0.195
Mean deviation from mean	147.79	138.78	165.75	143.15	135.99	162.20
Relative deviation from mean	0.164	0.136	0.145	0.162	0.137	0.145
Gini coefficient	0.116	0.098	0.105	0.115	0.097	0.104
Regression results						
Adj. wealth: Linear F	279.624	200.005	229.464	282.065	195.658	226.853
Elasticity	0.355	0.268	0.297	0.352	0.262	0.281
Quadratic F	157.101	112.493	133.245	157.051	109.607	132.896
Elasticity	0.425	0.331	0.362	0.420	0.326	0.352
Income: Linear F	10.914	15.071	31.374	10.324	17.754	32.621
Elasticity	0.251	0.256	0.390	0.254	0.283	0.404
Quadratic F	6.707	8.094	20.503	6.035	9.148	20.383
Elasticity	0.222	0.244	0.338	0.227	0.275	0.375
Adj. tax rate: Linear F	8.870	48.594	10.452	11.118	40.421	6.680
Elasticity	-0.160	0.367	0.268	-0.178	0.329	0.215
Quadratic F	5.894	30.035	8.777	6.496	26.540	8.742
Elasticity	-0.200	0.438	0.233	-0.209	0.420	0.168
Mean for adj. wealth decile						
1st	664.93	829.13	889.61	658.30	816.42	879.79
2nd	758.68	885.77	985.56	742.39	849.52	965.16
3rd	743.41	879.74	992.55	738.10	905.39	981.88
4th	868.17	987.47	1031.97	822.54	922.77	1038.77
5th	909.37	997.65	1093.23	876.66	1015.05	1023.35
6th	906.94	974.35	1167.28	870.85	948.08	1146.55
7th	944.24	1097.54	1185.40	944.40	1019.74	1135.59
8th	1020.30	1100.51	1253.17	964.79	1082.41	1267.35
9th	1011.75	1109.83	1336.82	1030.48	1122.57	1286.45
10th	1211.26	1318.27	1511.24	1160.52	1277.84	1466.48
Mean for income decile						
1st	823.97	920.05	1084.72	787.75	891.03	1034.43
2nd	930.07	990.59	1037.59	888.97	938.67	1012.02
3rd	838.95	974.52	1100.47	836.41	959.48	1070.64
4th	841.61	1020.76	1082.59	850.89	1008.71	1107.07
5th	922.89	986.89	1115.28	899.00	1022.28	1080.46
6th	902.78	1082.63	1126.45	906.10	1043.28	1084.88
7th	911.48	1025.37	1126.58	839.80	977.91	1112.30
8th	917.75	1007.94	1159.07	902.62	971.85	1128.04
9th	878.29	1009.25	1217.73	857.05	1020.12	1210.85
10th	1049.03	1153.67	1389.58	1024.64	1119.80	1344.20
Mean for district type						
Below median ADM	956.95	1076.25	1211.47	947.95	1057.16	1192.33
Above median ADM	850.87	959.80	1077.89	813.86	934.80	1045.94
Below median % urban	950.62	1038.71	1177.13	925.26	1025.32	1155.40
Above median % urban	852.74	995.63	1110.88	833.39	965.30	1081.58
Below median % white	848.84	970.39	1090.94	833.27	959.38	1081.76
Above median % white	954.52	1063.95	1197.08	925.38	1031.25	1155.22
Below median % poverty	908.66	1021.70	1164.08	880.13	990.92	1125.82
Above median % poverty	894.70	1012.64	1123.93	878.52	999.71	1111.16
Correlation with						
ADM	-0.385	-0.371	-0.346	-0.421	-0.395	-0.374
Adj. wealth	0.786	0.735	0.761	0.787	0.731	0.759
Income	0.245	0.286	0.400	0.239	0.308	0.406
% Urban	-0.195	-0.118	-0.127	-0.205	-0.114	-0.131
% White	0.320	0.286	0.280	0.305	0.277	0.258
% Poverty	-0.113	-0.040	-0.137	-0.067	-0.004	-0.092
Adj. tax rate	-0.221	0.471	0.243	-0.246	0.438	0.196
Gini by adj. wealth distribution	0.165	0.189	0.188	0.164	0.190	0.194
Gini by income distribution	0.138	0.123	0.121	0.134	0.119	0.118

Table A-40  
DISTRIBUTION OF LOCAL + STATE REVENUE PER PUPIL  
IN KANSAS DISTRICTS WITH ADM BETWEEN 400 AND 1200

Measure	1970-73	Unweighted 1973-74	1974-75	1972-72	Weighted 1973-74	1974-75
Percentile						
100th	1676.17	1728.27	2408.98	1676.17	1728.27	2408.98
95th	1328.53	1464.12	1643.09	1273.81	1438.86	1603.67
75th	1056.93	1171.16	1352.66	1033.19	1165.84	1322.35
50th (median)	943.98	1073.23	1201.72	923.14	1054.86	1160.10
25th	793.67	930.58	1065.17	759.46	915.20	1034.61
5th	650.88	783.53	881.92	654.89	778.02	871.10
1st	534.71	724.49	721.23	534.71	724.49	721.23
Range	1141.46	1003.78	1687.74	1141.46	1003.78	1687.74
Restricted range	672.65	680.59	761.17	618.92	660.83	732.57
Restricted range ratio	1.026	0.869	0.863	0.945	0.849	0.841
Mean deviation from median	160.25	151.12	180.39	155.86	148.75	176.81
Relative deviation from median	0.170	0.141	0.150	0.169	0.141	0.152
Mean	944.54	1079.41	1223.11	919.74	1054.47	1195.32
Standard deviation	201.658	196.202	241.776	193.856	191.384	235.228
Coefficient of variation	0.213	0.182	0.198	0.213	0.181	0.197
Mean deviation from mean	160.26	151.24	181.42	155.88	148.75	178.69
Relative deviation from mean	0.170	0.140	0.148	0.169	0.141	0.149
Gini coefficient	0.120	0.101	0.106	0.119	0.100	0.106
Regression results						
Adj. wealth: Linear F	304.121	219.827	239.870	310.651	219.175	239.540
Elasticity	0.372	0.281	0.302	0.370	0.276	0.287
Quadratic F	180.232	131.997	149.940	181.908	130.769	152.869
Elasticity	0.457	0.360	0.381	0.453	0.356	0.375
Income: Linear F	9.312	14.807	30.726	8.785	16.702	32.108
Elasticity	0.240	0.261	0.390	0.243	0.283	0.405
Quadratic F	5.927	8.376	19.227	5.298	8.947	19.339
Elasticity	0.211	0.245	0.342	0.215	0.272	0.378
Adj. tax rate: Linear F	11.004	42.164	9.136	13.847	33.525	5.766
Elasticity	-0.183	0.357	0.253	-0.204	0.314	0.203
Quadratic F	7.044	26.994	8.432	7.977	23.495	8.527
Elasticity	-0.225	0.433	0.217	-0.237	0.412	0.154
Mean for adj. wealth decile						
1st	673.46	858.51	926.64	664.55	842.12	911.55
2nd	775.98	925.53	1051.69	761.33	884.57	1025.08
3rd	773.19	927.07	1054.25	765.26	958.38	1055.85
4th	903.73	1044.78	1098.70	856.43	968.60	1097.92
5th	949.52	1056.15	1173.46	919.47	1078.24	1095.10
6th	955.48	1036.62	1248.66	911.09	1003.89	1227.81
7th	998.77	1162.94	1277.04	992.81	1083.29	1220.83
8th	1077.78	1184.43	1348.22	1021.65	1161.04	1359.56
9th	1065.07	1189.20	1442.54	1081.98	1202.16	1393.51
10th	1272.47	1408.92	1609.89	1222.82	1362.45	1566.01
Mean for income decile						
1st	866.45	977.91	1147.41	826.55	945.50	1091.85
2nd	974.46	1048.04	1112.59	928.42	996.16	1088.32
3rd	876.83	1034.91	1183.59	875.59	1019.14	1149.72
4th	879.65	1080.00	1156.28	888.04	1066.87	1181.68
5th	965.44	1055.03	1201.77	939.00	1091.10	1162.73
6th	950.05	1146.56	1202.76	958.70	1096.37	1156.04
7th	943.56	1083.39	1196.37	862.77	1031.09	1179.35
8th	961.27	1066.99	1240.80	945.95	1028.06	1214.17
9th	908.17	1060.73	1294.32	884.86	1071.29	1285.68
10th	1097.90	1231.16	1486.34	1071.83	1191.80	1435.76
Mean for district type						
Below median ADM	1001.57	1144.55	1296.91	992.18	1124.01	1276.35
Above median ADM	887.51	1014.28	1149.31	847.30	984.93	1114.30
Below median % urban	997.36	1107.59	1262.70	969.88	1091.87	1237.83
Above median % urban	887.40	1049.35	1181.75	866.46	1015.60	1151.22
Below median % white	883.75	1024.55	1163.48	866.27	1011.10	1151.56
Above median % white	1001.01	1132.39	1280.97	970.07	1096.38	1237.50
Below median % poverty	945.90	1079.34	1237.56	915.73	1044.20	1196.31
Above median % poverty	938.86	1077.60	1206.89	920.61	1063.28	1192.74
Correlation with						
ADM	-0.385	-0.385	-0.350	-0.419	-0.409	-0.377
Adj. wealth	0.798	0.751	0.768	0.801	0.750	0.768
Income	0.227	0.284	0.396	0.221	0.300	0.404
% Urban	-0.210	-0.153	-0.141	-0.219	-0.149	-0.141
% White	0.334	0.301	0.294	0.321	0.299	0.284
% Poverty	-0.090	-0.013	-0.111	-0.046	0.025	-0.067
Adj. tax rate	-0.245	0.446	0.228	-0.272	0.406	0.183
Gini by adj. wealth distribution	0.159	0.184	0.185	0.159	0.185	0.190
Gini by income distribution	0.143	0.126	0.122	0.139	0.122	0.119

Table A.41  
DISTRIBUTION OF LOCAL + STATE + PL874 REVENUE PER PUPIL  
IN KANSAS DISTRICTS WITH ADM BETWEEN 400 AND 1299

Measure	Unweighted			Weighted		
	1972-73	1973-74	1974-75	1972-73	1973-74	1974-75
Percentile						
100th	1676.17	1728.27	2408.98	1676.17	1728.27	2408.98
95th	1328.53	1464.12	1643.09	1273.81	1438.86	1603.67
75th	1057.48	1177.16	1352.66	1033.19	1165.84	1322.35
50th (median)	946.80	1076.04	1202.80	923.14	1054.86	1162.71
25th	797.06	944.13	1081.14	760.14	925.43	1040.84
5th	666.72	795.09	918.72	665.59	784.58	882.69
1st	534.71	724.49	721.23	534.71	724.49	721.23
Range	1141.46	1003.78	1687.74	1141.46	1003.78	1687.74
Restricted range	661.81	669.03	724.37	608.22	654.28	720.97
Restricted range ratio	0.993	0.841	0.788	0.914	0.834	0.817
Mean deviation from median	156.92	148.05	177.52	152.50	145.62	174.19
Relative deviation from median	0.166	0.138	0.148	0.165	0.138	0.150
Mean	949.42	1084.10	1227.76	924.77	1059.54	1209.14
Standard deviation	198.127	192.684	239.024	192.285	187.996	232.552
Coefficient of variation	0.209	0.178	0.195	0.208	0.177	0.194
Mean deviation from mean	156.93	148.13	178.52	152.51	145.67	175.80
Relative deviation from mean	0.165	0.137	0.145	0.165	0.137	0.146
Gini coefficient	0.117	0.098	0.104	0.116	0.098	0.104
Regression results						
Adj. wealth: Linear F	296.542	214.854	232.696	303.461	213.142	232.738
Elasticity	0.361	0.273	0.296	0.360	0.269	0.281
Quadratic F	173.003	127.075	143.685	174.913	125.187	146.527
Elasticity	0.441	0.348	0.372	0.437	0.343	0.365
Income: Linear F	9.429	14.895	30.700	8.862	16.775	31.899
Elasticity	0.236	0.256	0.384	0.238	0.277	0.398
Quadratic F	5.951	8.422	19.314	5.316	8.978	19.329
Elasticity	0.207	0.240	0.336	0.211	0.266	0.371
Adj. tax rate: Linear F	10.514	43.582	9.592	13.319	34.986	6.061
Elasticity	-0.175	0.354	0.255	-0.195	0.312	0.204
Quadratic F	6.696	27.368	8.657	7.611	23.753	8.663
Elasticity	-0.215	0.425	0.219	-0.227	0.405	0.156
Mean for adj. wealth decile						
1st	686.06	870.12	936.18	679.21	854.88	921.86
2nd	784.92	933.68	1057.86	769.09	892.85	1031.50
3rd	782.90	940.77	1070.27	774.27	967.24	1066.27
4th	911.27	1048.91	1104.87	861.10	979.40	1107.01
5th	956.53	1061.33	1177.55	926.87	1080.77	1101.53
6th	957.81	1039.30	1252.08	916.31	1008.25	1230.55
7th	999.05	1164.35	1278.17	993.89	1086.29	1223.58
8th	1077.78	1184.43	1348.22	1021.65	1161.16	1359.56
9th	1065.43	1189.20	1442.54	1082.34	1202.16	1393.51
10th	1272.47	1408.92	1609.89	1222.96	1362.45	1566.01
Mean for income decile						
1st	870.64	982.17	1152.27	831.48	950.05	1097.30
2nd	978.34	1053.38	1119.00	934.54	1002.10	1094.62
3rd	885.97	1043.00	1188.80	883.38	1027.22	1156.02
4th	886.09	1084.78	1163.73	892.82	1071.17	1187.02
5th	968.88	1060.74	1206.90	943.09	1097.86	1171.32
6th	950.71	1151.50	1205.56	960.36	1103.44	1158.40
7th	949.63	1084.14	1198.51	869.62	1032.02	1181.85
8th	962.14	1069.70	1244.22	946.46	1030.32	1217.17
9th	919.90	1070.29	1301.68	896.61	1080.70	1291.91
10th	1098.38	1232.13	1487.36	1072.58	1193.41	1437.43
Mean for district type						
Below median ADM	1006.13	1148.65	1301.08	996.68	1128.13	1280.73
Above median ADM	892.72	1019.55	1154.44	852.85	990.96	1119.54
Below median % urban	1000.74	1110.92	1265.83	974.43	1096.51	1242.26
Above median % urban	893.39	1055.45	1187.77	871.75	1021.15	1156.35
Below median % white	888.85	1030.46	1168.79	871.40	1017.20	1156.76
Above median % white	1005.29	1135.91	1284.82	974.79	1100.46	1241.85
Below median % poverty	952.30	1084.57	1242.29	921.61	1050.18	1201.50
Above median % poverty	941.83	1081.80	1211.31	924.58	1067.48	1197.11
Correlation with						
ADM	-0.389	-0.386	-0.352	-0.424	-0.410	-0.379
Adj. wealth	0.795	0.747	0.763	0.798	0.746	0.763
Income	0.229	0.285	0.396	0.222	0.300	0.403
% Urban	-0.215	-0.154	-0.140	-0.226	-0.152	-0.141
% White	0.331	0.294	0.290	0.316	0.290	0.276
% Poverty	-0.100	-0.020	-0.116	-0.055	0.018	-0.071
Adj. tax rate	-0.239	0.452	0.233	-0.267	0.413	0.187
Gini by adj. wealth distribution	0.162	0.186	0.186	0.161	0.187	0.192
Gini by income distribution	0.140	0.124	0.121	0.137	0.121	0.119

Table A.42  
DISTRIBUTION OF INSTRUCTIONAL EXPENDITURES PER PUPIL  
IN KANSAS DISTRICTS WITH ADM BETWEEN 400 AND 1299

Measure	1972-73	Unweighted 1973-74	1974-75	1972-73	Weighted 1973-74	1974-75
Percentile						
100th	1011.28	1134.11	1743.48	1011.28	1134.11	1743.48
95th	827.94	846.62	903.46	793.30	822.09	877.77
75th	663.98	682.08	751.52	646.95	666.06	730.63
50th (median)	588.94	623.16	688.41	579.96	613.46	677.95
25th	531.36	562.87	622.93	520.68	556.94	617.27
5th	450.85	477.11	534.26	434.76	477.07	534.63
1st	374.02	398.80	432.96	374.02	398.80	432.96
Range	637.26	735.30	1310.51	637.26	735.30	1310.51
Restricted range	377.09	363.51	369.20	358.54	345.01	343.14
Restricted range ratio	0.836	0.762	0.691	0.825	0.723	0.642
Mean deviation from median	87.79	81.60	89.72	84.18	78.30	84.41
Relative deviation from median	0.149	0.131	0.130	0.145	0.128	0.125
Mean	607.39	633.54	702.98	595.41	621.26	687.97
Standard deviation	117.935	111.570	141.858	115.423	107.348	130.215
Coefficient of variation	0.194	0.176	0.202	0.194	0.173	0.189
Mean deviation from mean	89.19	82.22	90.83	85.87	78.70	84.86
Relative deviation from mean	0.147	0.130	0.129	0.144	0.127	0.123
Gini coefficient	0.105	0.095	0.096	0.104	0.092	0.091
Regression results						
Adj. wealth: Linear F	192.099	180.671	67.386	180.357	169.400	70.591
Elasticity	0.307	0.260	0.215	0.300	0.248	0.196
Quadratic F	104.042	109.073	43.708	96.116	101.497	47.209
Elasticity	0.364	0.339	0.299	0.352	0.326	0.285
Income: Linear F	18.275	24.765	20.318	18.566	30.129	22.920
Elasticity	0.300	0.319	0.333	0.314	0.349	0.338
Quadratic F	12.851	14.909	10.811	11.886	17.407	11.945
Elasticity	0.256	0.295	0.311	0.273	0.331	0.326
Adj. tax rate: Linear F	10.994	36.313	10.775	12.043	31.478	7.659
Elasticity	-0.166	0.326	0.279	-0.174	0.291	0.223
Quadratic F	6.770	22.532	5.799	6.852	21.066	4.690
Elasticity	-0.201	0.391	0.267	-0.201	0.376	0.204
Mean for adj. wealth decile						
1st	477.24	502.99	568.74	475.79	503.31	567.26
2nd	518.27	565.25	619.07	514.50	548.15	616.98
3rd	520.59	551.99	614.14	511.78	563.63	609.27
4th	587.32	596.96	665.87	563.33	579.17	635.05
5th	597.94	626.62	692.72	579.28	606.01	663.89
6th	616.63	623.68	720.93	589.13	620.52	717.83
7th	615.63	661.35	764.35	629.15	632.33	730.11
8th	665.23	693.63	747.80	643.40	660.14	764.81
9th	684.12	700.86	793.65	687.88	712.40	754.55
10th	790.97	812.09	842.52	759.89	786.95	819.97
Mean for income decile						
1st	559.96	576.91	647.01	537.75	559.95	626.27
2nd	603.28	602.22	650.90	577.60	574.87	629.81
3rd	568.55	601.32	672.15	572.41	588.54	656.85
4th	568.68	627.79	666.16	571.49	624.18	679.41
5th	607.57	611.15	693.94	594.24	633.51	679.99
6th	612.29	694.03	751.56	615.01	649.10	711.32
7th	614.67	615.34	680.77	583.40	602.59	682.67
8th	612.00	627.50	724.75	602.56	611.94	702.99
9th	599.98	642.80	739.26	586.55	648.17	732.11
10th	719.93	732.47	801.11	707.53	716.63	775.89
Mean for district type						
Below median ADM	632.63	668.72	749.58	629.36	655.18	732.89
Above median ADM	582.16	598.37	656.38	561.46	587.35	643.06
Below median % urban	623.64	648.32	721.74	615.85	636.25	705.77
Above median % urban	589.74	617.98	683.78	573.85	605.65	669.69
Below median % white	576.48	606.82	668.99	570.20	599.67	659.23
Above median % white	636.90	659.48	736.53	619.51	642.23	716.23
Below median % poverty	615.42	637.04	712.50	598.47	621.81	692.68
Above median % poverty	597.96	629.27	693.02	591.24	620.08	682.78
Correlation with						
ADM	-0.318	-0.334	-0.322	-0.352	-0.354	-0.357
Adj. wealth	0.725	0.718	0.536	0.714	0.706	0.545
Income	0.311	0.358	0.331	0.313	0.389	0.349
% Urban	-0.119	-0.099	-0.119	-0.117	-0.093	-0.115
% White	0.283	0.253	0.249	0.260	0.242	0.233
% Poverty	-0.087	-0.032	-0.087	-0.039	-0.013	-0.050
Adj. tax rate	-0.244	0.420	0.246	-0.255	0.395	0.209
Gini by adj. wealth distribution	0.177	0.189	0.211	0.178	0.191	0.216
Gini by income distribution	0.127	0.116	0.121	0.123	0.111	0.114

Table A.43  
DISTRIBUTION OF LOCAL ADJUSTED TAX RATES  
IN KANSAS DISTRICTS WITH ADM BETWEEN 400 AND 1296

Measure	Unweighted			Weighted		
	1972-73	1973-74	1974-75	1972-73	1973-74	1974-75
Percentile						
100th	11.60	11.18	10.03	11.60	11.19	10.03
95th	8.69	7.36	7.75	8.69	7.41	7.75
75th	6.44	5.97	6.62	6.52	6.08	6.64
50th (median)	5.63	5.20	5.83	5.68	5.23	5.91
25th	4.69	4.49	5.29	4.71	4.58	5.30
5th	3.35	3.45	4.31	3.37	3.45	4.35
1st	2.28	2.63	3.04	2.28	2.63	3.04
Range	9.32	8.56	6.99	9.32	8.56	6.99
Restricted range	5.34	3.91	3.44	5.32	3.97	3.40
Restricted range ratio	1.597	1.135	0.800	1.580	1.151	0.782
Mean deviation from median	1.23	0.90	0.81	1.24	0.93	0.82
Relative deviation from median	0.218	0.174	0.140	0.218	0.178	0.139
Mean	5.69	5.30	5.93	5.77	5.39	5.99
Standard deviation	1.626	1.204	1.055	1.642	1.267	1.063
Coefficient of variation	0.286	0.227	0.178	0.284	0.235	0.177
Mean deviation from mean	1.23	0.91	0.82	1.24	0.94	0.82
Relative deviation from mean	0.216	0.171	0.138	0.215	0.175	0.138
Gini coefficient	0.156	0.123	0.099	0.156	0.126	0.098
Regression results						
Adj. wealth: Linear F	130.633	2.334	11.779	136.076	1.029	15.958
Elasticity	-0.409	0.054	-0.091	-0.409	0.037	-0.100
Quadratic F	76.369	3.930	8.763	83.874	3.162	10.706
Elasticity	-0.523	0.136	-0.038	-0.543	0.122	-0.046
Income: Linear F	5.038	17.783	19.541	4.353	14.863	17.782
Elasticity	-0.239	0.355	0.288	-0.231	0.347	0.282
Quadratic F	2.513	8.889	10.963	2.177	7.397	10.144
Elasticity	-0.242	0.350	0.262	-0.227	0.346	0.266
Mean for adj. wealth decile						
1st	7.63	4.98	5.99	7.90	5.00	6.03
2nd	7.18	5.52	6.07	7.24	5.15	6.16
3rd	5.74	4.88	6.00	5.97	5.79	6.09
4th	6.14	4.84	6.09	6.24	4.87	6.13
5th	5.76	5.36	5.89	5.81	5.31	5.97
6th	5.67	5.18	6.18	5.26	5.50	6.38
7th	5.45	5.44	5.81	5.66	5.52	5.81
8th	5.28	5.40	6.19	5.21	5.32	6.27
9th	4.50	5.67	5.95	4.88	5.72	5.96
10th	3.55	5.74	5.17	3.58	5.75	5.07
Mean for income decile						
1st	6.66	4.78	5.92	6.81	5.01	5.97
2nd	5.22	4.74	5.16	5.25	4.65	5.21
3rd	5.33	5.12	5.91	5.35	5.10	5.86
4th	5.59	5.08	5.21	5.74	5.01	5.41
5th	6.30	5.11	5.92	6.18	5.89	5.98
6th	5.74	5.48	6.09	5.62	5.44	6.16
7th	5.23	5.89	6.05	5.83	5.89	6.22
8th	5.91	5.04	6.06	5.92	5.01	6.02
9th	6.02	5.86	6.55	6.29	6.03	6.71
10th	4.79	5.93	6.48	4.70	5.91	6.34
Mean for district type						
Below median ADM	5.56	5.09	5.75	5.55	5.20	5.90
Above median ADM	5.82	5.52	6.12	6.00	5.58	6.08
Below median % urban	5.36	5.21	5.73	5.43	5.28	5.82
Above median % urban	6.00	5.40	6.14	6.11	5.50	6.16
Below median % white	5.90	5.26	6.02	6.07	5.48	6.20
Above median % white	5.45	5.34	5.85	5.47	5.30	5.78
Below median % poverty	5.73	5.51	6.03	5.91	5.57	6.04
Above median % poverty	5.63	5.09	5.84	5.62	5.22	5.93
Correlation with						
ADM	0.163	0.228	0.157	0.186	0.252	0.144
Adj. wealth	-0.656	0.116	-0.257	-0.664	0.078	-0.295
Income	-0.169	0.309	0.325	-0.158	0.284	0.312
% Urban	0.184	0.185	0.267	0.192	0.177	0.269
% White	-0.179	-0.024	0.003	-0.266	-0.026	-0.043
% Poverty	-0.013	-0.221	-0.107	-0.028	-0.218	-0.039
Gini by adj. wealth distribution	0.359	0.254	0.291	0.358	0.260	0.298
Gini by income distribution	0.205	0.135	0.122	0.199	0.136	0.122

TABLE A-44  
DISTRIBUTION OF GENERAL REVENUE PER PCT., EXCLUDING INCOME TAX  
IN KANSAS DISTRICTS WITH ADM 1.00 AND ABOVE

Measure	1972-73	Unweighted 1973-74	1974-75	1975-76	Weighted 1973-74	1974-75
Percentile						
100th	1105.62	1206.14	1428.91	1105.62	1091.17	1428.91
95th	1045.77	1065.10	1199.24	878.51	1024.47	1176.91
75th	826.78	926.71	1024.04	878.78	955.21	1053.99
50th (median)	749.16	839.60	953.22	765.50	883.71	992.22
25th	691.93	801.98	898.40	681.28	822.72	927.93
5th	534.06	636.39	805.51	526.44	668.16	821.31
1st	450.33	562.50	689.42	476.33	562.50	689.42
Range	655.30	642.64	744.50	655.30	642.64	744.50
Restricted range	511.71	426.72	393.71	350.10	364.29	257.67
Restricted range ratio	0.958	0.671	0.489	0.665	0.552	0.314
Mean deviation from median	92.39	88.09	88.85	82.23	95.18	81.88
Relative deviation from median	0.123	0.105	0.094	0.107	0.108	0.085
Mean	758.17	856.56	971.98	751.91	885.33	984.52
Standard deviation	126.575	120.936	129.059	108.075	116.283	108.166
Coefficient of variation	0.167	0.141	0.133	0.144	0.131	0.110
Mean deviation from mean	92.86	88.96	90.31	83.17	95.19	81.96
Relative deviation from mean	0.122	0.104	0.093	0.111	0.108	0.085
Gini coefficient	0.090	0.076	0.068	0.077	0.072	0.058
Regression results						
Adj. wealth: Linear F	63.031	30.449	56.523	41.966	12.468	32.021
Elasticity	0.272	0.177	0.193	0.281	0.155	0.173
Quadratic F	37.311	15.378	28.241	27.064	7.150	17.412
Elasticity	0.357	0.202	0.212	0.381	0.204	0.215
Income: Linear F	0.536	1.099	0.728	11.005	18.285	16.033
Elasticity	0.064	0.077	0.056	0.233	0.261	0.201
Quadratic F	0.433	0.875	0.458	6.099	9.140	10.660
Elasticity	0.073	0.088	0.050	0.254	0.270	0.234
Adj. tax rate: Linear F	1.506	10.400	0.861	4.210	39.140	15.330
Elasticity	-0.095	0.221	0.098	0.162	0.357	0.327
Quadratic F	2.133	5.165	3.344	2.752	20.036	12.796
Elasticity	-0.138	0.204	0.053	0.180	0.352	0.410
Mean for adj. wealth decile						
1st	603.04	754.49	865.24	594.48	762.89	841.08
2nd	687.48	801.92	883.44	671.16	759.56	935.77
3rd	726.86	795.70	924.65	702.36	852.05	899.12
4th	725.40	884.59	982.96	751.51	906.71	1017.78
5th	739.44	842.16	933.29	800.98	1024.47	1050.91
6th	719.19	828.85	956.92	809.22	946.41	1008.74
7th	792.08	887.42	982.21	716.30	835.87	978.30
8th	756.62	848.68	1023.61	830.41	942.46	1070.78
9th	857.43	895.32	956.29	769.53	906.94	971.69
10th	974.14	1026.45	1211.17	873.13	915.97	1070.98
Mean for income decile						
1st	705.29	750.02	924.98	709.81	808.06	927.00
2nd	788.05	914.47	1007.00	734.95	873.59	944.00
3rd	748.96	884.65	957.18	725.77	814.08	935.17
4th	810.20	873.28	1006.77	684.54	862.54	972.65
5th	738.21	856.65	960.69	721.35	827.03	954.41
6th	750.84	827.78	915.14	698.96	814.48	894.48
7th	725.58	891.58	1009.47	826.78	1024.47	1019.10
8th	766.47	833.06	969.79	797.61	955.00	1053.99
9th	775.80	839.44	959.79	794.80	931.35	1076.00
10th	778.99	901.84	1011.89	830.41	955.23	1073.89
Mean for district type						
Below median ADM	808.97	886.68	1005.44	726.15	834.52	944.14
Above median ADM	707.36	826.43	938.52	777.67	936.15	1024.89
Below median % urban	791.90	881.88	1003.53	724.29	830.67	946.14
Above median % urban	725.77	832.67	941.01	780.70	942.49	1023.99
Below median % white	736.30	837.86	951.12	736.36	889.57	970.29
Above median % white	781.38	876.70	993.43	768.64	883.60	999.84
Below median % poverty	764.18	864.41	975.43	775.07	926.04	1018.91
Above median % poverty	753.50	850.14	969.11	729.93	847.12	951.22
Correlation with						
ADM	-0.028	0.137	0.056	0.340	0.572	0.420
Adj. wealth	0.704	0.574	0.688	0.629	0.409	0.581
Income	0.092	0.133	0.108	0.386	0.480	0.453
% Urban	-0.139	-0.038	-0.101	0.021	0.209	0.100
% White	0.277	0.183	0.214	0.257	0.080	0.183
% Poverty	-0.020	-0.032	-0.073	-0.300	-0.342	-0.384
Adj. tax rate	-0.152	0.379	0.116	0.248	0.622	0.442
Gini by adj. wealth distribution	0.160	0.190	0.189	0.116	0.148	0.145
Gini by income distribution	0.159	0.150	0.154	0.123	0.118	0.121

TABLE A-4  
DISTRIBUTION OF GENERAL REVENUE PER PERSON  
IN KANSAS DISTRICTS WITH ADM 1,000 AND ABOVE

Measure	Unweighted 1972-73	Unweighted 1973-74	Unweighted 1974-75	Weighted 1972-73	Weighted 1973-74	Weighted 1974-75
Percentile						
10th	1105.62	1209.87	1462.45	1105.62	1209.87	1462.45
20th	1645.77	1061.96	1275.27	1645.77	1061.96	1275.27
30th	826.78	930.77	1061.19	826.78	930.77	1061.19
50th (median)	249.36	844.67	979.42	249.36	844.67	979.42
70th	691.93	806.83	926.10	691.93	806.83	926.10
90th	534.06	635.35	811.56	534.06	635.35	811.56
1st	450.33	564.91	697.84	450.33	564.91	697.84
Range	655.36	644.87	764.61	655.36	644.87	764.61
Restricted range	511.71	429.57	420.68	511.71	429.57	420.68
Restricted range ratio	0.798	0.673	0.518	0.798	0.673	0.518
Mean deviation from median	92.39	88.18	92.47	92.39	88.18	92.47
Relative deviation from median	0.123	0.104	0.094	0.123	0.104	0.094
Mean	758.17	860.74	1000.30	758.17	860.74	1000.30
Standard deviation	126.575	121.557	133.693	126.575	121.557	133.693
Coefficient of variation	0.167	0.141	0.134	0.167	0.141	0.134
Mean deviation from mean	92.86	89.07	95.08	92.86	89.07	95.08
Relative deviation from mean	0.122	0.103	0.095	0.122	0.103	0.095
Gini coefficient	0.090	0.076	0.069	0.090	0.076	0.069
Regression results						
Adj. wealth: Linear F	63.031	30.482	59.144	41.966	12.399	32.230
Elasticity	0.272	0.177	0.197	0.281	0.155	0.178
Quadratic F	37.311	15.416	29.797	27.064	7.133	17.958
Elasticity	0.357	0.202	0.220	0.381	0.204	0.225
Income: Linear F	0.536	1.205	1.367	11.005	18.553	19.062
Elasticity	0.064	0.080	0.078	0.233	0.263	0.220
Quadratic F	0.433	0.941	0.750	6.099	9.248	12.004
Elasticity	0.073	0.092	0.072	0.254	0.270	0.251
Adj. tax rate: Linear F	1.506	10.517	1.015	4.210	39.449	16.543
Elasticity	-0.095	0.222	0.107	0.162	0.358	0.344
Quadratic F	2.133	5.216	3.101	2.752	20.180	13.222
Elasticity	-0.138	0.206	0.064	0.180	0.353	0.427
Mean for adj. wealth decile						
1st	603.04	757.15	880.45	594.48	765.41	857.83
2nd	687.48	805.81	908.30	671.16	763.96	957.75
3rd	726.86	799.86	945.18	702.36	856.56	924.71
4th	725.40	889.65	1014.96	751.51	912.65	1057.66
5th	739.44	846.51	962.79	800.98	1030.34	1088.54
6th	719.19	833.35	988.89	809.22	951.84	1045.73
7th	792.08	892.64	1016.00	716.30	840.37	1008.93
8th	756.62	852.13	1051.14	830.41	946.24	1105.85
9th	857.43	899.14	983.42	769.53	911.25	1005.25
10th	974.14	1031.13	1248.86	873.13	920.33	1103.14
Mean for income decile						
1st	705.29	752.57	942.71	709.81	810.80	945.47
2nd	788.05	917.43	1027.86	734.95	877.33	971.27
3rd	748.96	888.15	983.83	725.77	818.69	961.44
4th	810.20	877.54	1032.64	684.54	867.11	1002.34
5th	738.21	860.95	985.63	721.35	831.50	978.39
6th	750.84	832.28	946.67	698.96	819.17	926.31
7th	725.58	896.15	1039.06	826.78	1030.34	1056.59
8th	766.47	838.08	1000.13	797.61	960.87	1094.02
9th	775.80	844.04	995.25	794.80	936.72	1117.13
10th	778.99	907.30	1049.43	830.41	958.90	1108.83
Mean for district type						
Below median ADM	808.97	890.62	1032.82	726.15	838.67	971.29
Above median ADM	707.36	830.85	967.18	777.67	941.12	1059.78
Below median % urban	791.90	885.58	1029.07	724.29	834.76	973.28
Above median % urban	725.77	837.32	971.57	780.70	947.52	1059.08
Below median % white	736.30	842.50	981.44	736.36	894.59	1002.11
Above median % white	781.38	880.39	1019.20	768.64	887.70	1030.25
Below median % poverty	764.18	868.50	1002.79	775.07	930.55	1051.42
Above median % poverty	753.50	854.39	997.86	729.93	851.73	980.94
Correlation with						
ADM	-0.028	0.139	0.067	0.340	0.572	0.434
Adj. wealth	0.704	0.574	0.696	0.629	0.408	0.582
Income	0.092	0.139	0.147	0.386	0.483	0.485
% Urban	-0.139	-0.032	-0.061	0.021	0.213	0.134
% White	0.277	0.181	0.207	0.257	0.078	0.183
% Poverty	-0.020	-0.030	-0.068	-0.300	-0.339	-0.379
Adj. tax rate	-0.152	0.381	0.126	0.248	0.624	0.456
Gini by adj. wealth distribution	0.160	0.190	0.188	0.116	0.148	0.145
Gini by income distribution	0.159	0.149	0.152	0.123	0.117	0.119



Table 2-46  
DISTRIBUTION OF GENERAL & SPECIAL REVENUE PER DECILE  
IN KANSAS DISTRICTS WITH ADJ. WEALTH ABOVE

Measure	unweighted 1971-74	unweighted 1975-79	weighted 1971-74	weighted 1975-79	1971-79
Percentile					
100th	1105.62	1209.84	1302.16	1209.84	1401.16
95th	1054.77	1168.16	1281.64	1168.16	1326.96
75th	950.81	994.01	1072.11	994.01	1167.77
50th (median)	755.05	858.55	985.53	858.55	1029.70
25th	715.16	814.83	941.57	814.83	963.22
5th	629.92	750.59	852.60	750.59	912.14
1st	507.38	575.22	812.13	575.22	812.13
Range	598.24	634.61	651.52	598.24	650.52
Restricted range	415.79	337.58	429.04	415.79	414.55
Restricted range ratio	0.660	0.462	0.503	0.365	0.235
Mean deviation from median	81.54	78.92	87.53	71.67	81.54
Relative deviation from median	0.108	0.092	0.089	0.092	0.079
Mean	776.67	875.95	1019.49	771.58	1035.27
Standard deviation	111.529	109.647	125.145	96.014	102.044
Coefficient of variation	0.144	0.125	0.123	0.117	0.095
Mean deviation from mean	83.63	80.93	90.84	71.96	81.74
Relative deviation from mean	0.108	0.092	0.089	0.093	0.079
Gini coefficient	0.077	0.067	0.063	0.063	0.051
Regression results					
Adj. wealth: Linear F	47.153	22.989	39.912	25.992	22.555
Elasticity	0.216	0.143	0.162	0.195	0.133
Quadratic F	23.773	11.374	19.768	13.160	11.177
Elasticity	0.242	0.133	0.151	0.219	0.141
Income: Linear F	6.003	1.182	0.516	7.620	16.690
Elasticity	0.004	0.070	0.044	0.161	0.177
Quadratic F	0.173	0.795	0.750	7.338	13.280
Elasticity	-0.003	0.079	0.032	0.201	0.213
Adj. tax rate: Linear F	1.414	13.479	0.566	3.504	13.518
Elasticity	-0.079	0.219	0.074	0.121	0.268
Quadratic F	2.234	6.632	3.194	3.061	13.724
Elasticity	-0.118	0.221	0.032	0.141	0.353
Mean for adj. wealth decile					
1st	719.16	840.13	956.01	712.10	967.11
2nd	707.72	835.87	981.16	692.82	972.88
3rd	731.84	805.74	954.95	705.40	946.28
4th	738.31	894.08	1016.91	761.73	1057.66
5th	744.81	853.52	970.45	811.67	1101.33
6th	723.75	836.85	996.12	819.60	1056.98
7th	795.58	896.61	1017.39	721.79	1019.90
8th	762.45	854.81	1056.19	836.81	1113.74
9th	865.40	910.71	996.86	774.40	1007.14
10th	977.66	1031.17	1248.89	879.45	1109.62
Mean for income decile					
1st	758.64	769.70	996.98	776.68	1006.21
2nd	822.85	960.71	1041.30	744.78	993.88
3rd	760.92	894.60	1026.23	742.01	970.02
4th	812.92	880.02	1035.52	687.12	1005.29
5th	753.53	874.49	998.05	726.22	981.43
6th	755.26	837.11	952.97	757.71	986.33
7th	729.84	901.52	1044.00	838.78	1071.48
8th	772.08	839.64	1001.73	808.77	1107.77
9th	820.18	891.97	1043.14	803.82	1120.49
10th	788.01	916.79	1058.91	836.81	1116.97
Mean for district type					
Below median ADM	817.31	897.35	1040.35	754.14	1000.14
Above median ADM	736.02	854.55	998.64	789.01	1070.40
Below median % urban	808.59	894.33	1046.36	754.17	1002.18
Above median % urban	746.26	858.98	993.40	790.37	1069.79
Below median % white	756.87	863.82	1002.90	763.45	1029.80
Above median % white	797.98	889.48	1036.87	781.09	1042.17
Below median % poverty	785.12	882.25	1025.29	794.39	1070.19
Above median % poverty	769.72	871.06	1014.48	750.15	1001.79
Correlation with					
ADM	-0.026	0.164	0.073	0.322	0.429
Adj. wealth	0.651	0.520	0.623	0.537	0.513
Income	0.007	0.138	0.091	0.328	0.461
% Urban	-0.191	-0.005	-0.088	-0.045	0.109
% White	0.211	0.077	0.130	0.263	0.168
% Poverty	-0.053	-0.036	-0.104	-0.320	-0.402
Adj. tax rate	-0.147	0.423	0.094	0.228	0.420
Gini by adj. wealth distribution	0.173	0.198	0.198	0.129	0.154
Gini by income distribution	0.158	0.146	0.152	0.122	0.119

Table A.47  
DISTRIBUTION OF LOCAL + STATE REVENUE PER PUPIL  
IN KANSAS DISTRICTS WITH ADM 1300 AND ABOVE

Measure	1972-73	Unweighted 1973-74	1974-75	1972-73	Weighted 1973-74	1974-75
Percentile						
100th	1154.49	1253.32	1332.22	1154.49	1253.32	1332.22
95th	1100.87	1142.91	1238.58	1077.26	1067.04	1173.75
75th	845.59	971.46	1136.70	850.56	978.93	1159.83
50th (median)	777.59	895.87	1026.91	781.56	954.25	1078.21
25th	704.21	840.57	984.64	702.36	859.15	999.04
5th	567.93	662.80	855.52	570.72	679.72	876.19
1st	467.80	598.74	769.51	467.80	598.74	769.51
Range	686.70	654.58	762.72	686.70	654.58	762.72
Restricted range	532.94	480.10	483.06	536.54	387.32	297.56
Restricted range ratio	0.938	0.724	0.565	0.590	0.570	0.340
Mean deviation from median	95.90	97.03	104.06	85.02	96.90	95.87
Relative deviation from median	0.123	0.108	0.101	0.109	0.102	0.089
Mean	784.54	904.34	1059.26	775.14	922.38	1069.94
Standard deviation	133.075	129.911	146.140	112.069	120.505	121.144
Coefficient of variation	0.170	0.144	0.138	0.145	0.131	0.113
Mean deviation from mean	96.70	97.13	105.54	85.73	97.20	96.24
Relative deviation from mean	0.123	0.107	0.100	0.111	0.105	0.090
Gini coefficient	0.092	0.078	0.072	0.077	0.072	0.060
Regression results						
Adj. wealth: Linear F	67.782	35.685	69.135	43.024	15.500	39.592
Elasticity	0.281	0.190	0.211	0.284	0.168	0.191
Quadratic F	39.880	18.618	36.059	26.766	8.881	22.659
Elasticity	0.366	0.228	0.248	0.379	0.221	0.246
Income: Linear F	0.083	0.470	1.075	8.634	12.369	15.679
Elasticity	0.026	0.051	0.071	0.211	0.222	0.206
Quadratic F	0.175	0.629	0.544	5.057	6.152	9.579
Elasticity	0.033	0.064	0.069	0.235	0.229	0.234
Adj. tax rate: Linear F	1.766	6.368	0.350	4.079	27.356	11.388
Elasticity	-0.104	0.181	0.065	0.161	0.316	0.298
Quadratic F	2.569	3.189	2.054	2.997	14.394	9.349
Elasticity	-0.152	0.162	0.026	0.182	0.310	0.376
Mean for adj. wealth decile						
1st	623.85	792.65	926.76	618.81	796.89	903.92
2nd	716.05	840.60	949.81	689.56	789.67	1000.60
3rd	749.74	832.26	988.64	723.10	878.22	960.38
4th	745.40	920.36	1066.25	768.90	938.68	1081.14
5th	757.36	887.17	1011.24	828.56	1067.04	1169.00
6th	743.08	870.64	1045.85	836.73	986.35	1111.16
7th	812.88	927.82	1078.24	736.44	879.77	1068.76
8th	779.05	915.56	1124.97	850.56	961.37	1157.38
9th	902.53	962.38	1068.22	792.43	949.04	1069.44
10th	1015.49	1093.97	1332.68	906.26	976.80	1177.61
Mean for income decile						
1st	735.55	795.14	989.01	745.65	854.17	1000.27
2nd	829.85	974.23	1096.73	766.84	922.99	1033.26
3rd	795.64	945.96	1044.44	743.32	861.89	1006.63
4th	846.30	928.32	1109.73	703.66	898.69	1057.23
5th	754.19	902.89	1047.93	743.67	853.42	1021.48
6th	775.17	871.83	987.44	713.06	849.24	983.01
7th	742.37	939.89	1099.87	857.19	1067.04	1124.90
8th	789.18	864.01	1047.96	821.19	993.05	1173.75
9th	785.68	892.07	1068.93	814.07	961.20	1140.54
10th	800.63	937.29	1100.28	850.56	973.92	1159.85
Mean for district type						
Below median ADM	841.79	946.39	1101.77	750.97	878.22	1028.73
Above median ADM	727.30	862.29	1016.76	799.30	966.55	1111.14
Below median % urban	828.20	942.74	1100.11	748.54	875.43	1030.73
Above median % urban	742.72	867.59	1018.35	803.31	971.69	1109.45
Below median % white	757.43	878.56	1037.87	759.50	922.46	1051.17
Above median % white	813.49	931.76	1080.59	792.34	924.66	1089.01
Below median % poverty	784.41	912.61	1060.03	797.12	962.23	1105.45
Above median % poverty	786.50	897.71	1058.44	754.73	884.89	1034.73
Correlation with						
ADM	-0.040	0.080	0.042	0.336	0.509	0.444
Adj. wealth	0.717	0.604	0.723	0.634	0.447	0.621
Income	0.036	0.087	0.131	0.347	0.411	0.449
% Urban	-0.195	-0.117	-0.093	-0.023	0.122	0.088
% White	0.291	0.237	0.233	0.256	0.115	0.197
% Poverty	0.054	0.003	-0.035	-0.256	-0.286	-0.340
Adj. tax rate	-0.164	0.305	0.074	0.245	0.553	0.391
Gini by adj. wealth distribution	0.157	0.185	0.183	0.116	0.145	0.141
Gini by income distribution	0.165	0.154	0.154	0.125	0.123	0.121

Table A.48  
DISTRIBUTION OF LOCAL + STATE + FEDERAL REVENUE PER PEOPLE  
IN KANSAS DISTRICTS WITH ADM 1,000 AND ABOVE

Measure	Unweighted			Weighted		
	1972-73	1973-74	1974-75	1972-73	1973-74	1974-75
Percentile						
100th	1154.49	1253.32	1532.22	1154.49	1253.32	1532.22
95th	1100.87	1144.62	1369.98	907.26	1080.19	1187.50
75th	854.58	973.66	1141.62	856.97	992.27	1167.99
50th (median)	781.52	911.19	1051.31	791.78	954.25	1087.51
25th	734.42	854.02	990.85	715.20	862.12	1005.15
5th	651.89	759.53	881.66	651.21	805.40	947.73
1st	527.59	617.15	853.27	527.59	617.15	853.27
Range	626.91	636.18	678.95	626.91	636.18	678.95
Restricted range	448.98	385.09	488.38	256.05	274.79	239.77
Restricted range ratio	0.689	0.507	0.554	0.393	0.341	0.253
Mean deviation from median	85.37	86.73	99.09	74.74	87.12	87.72
Relative deviation from median	0.109	0.095	0.094	0.094	0.091	0.081
Mean	803.05	919.55	1078.76	794.80	939.71	1089.67
Standard deviation	118.662	117.329	138.125	94.721	105.040	107.248
Coefficient of variation	0.148	0.128	0.128	0.119	0.112	0.098
Mean deviation from mean	87.75	87.45	100.80	74.82	87.24	87.81
Relative deviation from mean	0.109	0.095	0.093	0.094	0.093	0.081
Gini coefficient	0.079	0.069	0.067	0.064	0.062	0.053
Regression results						
Adj. wealth: Linear F	50.765	28.613	47.595	26.740	9.807	27.904
Elasticity	0.227	0.157	0.178	0.201	0.119	0.148
Quadratic F	25.632	14.095	23.449	13.412	4.893	14.052
Elasticity	0.255	0.162	0.183	0.221	0.131	0.166
Income: Linear F	0.163	0.412	0.382	5.482	12.887	12.831
Elasticity	-0.031	0.043	0.040	0.141	0.193	0.165
Quadratic F	0.252	0.475	0.436	6.298	6.460	9.676
Elasticity	-0.039	0.052	0.030	0.184	0.200	0.198
Adj. tax rate: Linear F	1.686	8.065	0.112	3.339	31.877	8.374
Elasticity	-0.089	0.179	0.034	0.121	0.284	0.226
Quadratic F	2.706	3.969	2.128	3.431	16.312	8.956
Elasticity	-0.133	0.177	-0.003	0.144	0.280	0.306
Mean for adj. wealth decile						
1st	739.97	875.63	1002.31	736.43	890.34	1013.20
2nd	736.29	870.66	1022.67	711.22	818.00	1015.73
3rd	754.71	838.13	998.41	726.13	880.38	981.95
4th	758.31	924.78	1068.20	779.12	939.48	1081.14
5th	762.73	894.18	1018.89	839.25	1080.19	1181.79
6th	747.64	874.13	1053.07	847.11	997.28	1122.41
7th	816.38	931.79	1079.62	741.93	887.46	1079.74
8th	784.89	918.25	1130.02	856.97	968.54	1165.27
9th	910.51	973.94	1081.67	797.30	953.00	1071.33
10th	1019.02	1094.00	1332.71	912.58	982.44	1184.09
Mean for income decile						
1st	788.90	812.26	1043.28	812.52	901.20	1061.01
2nd	864.65	1017.51	1110.17	776.67	929.46	1055.87
3rd	807.61	952.40	1086.84	759.56	877.75	1015.22
4th	849.03	930.80	1112.61	706.24	902.78	1060.18
5th	769.51	916.42	1060.36	748.55	855.99	1024.52
6th	779.59	876.67	993.74	771.81	909.34	1043.03
7th	746.63	945.26	1104.81	869.19	1080.19	1139.78
8th	794.79	865.57	1049.56	832.35	1001.91	1187.50
9th	830.06	940.00	1116.81	823.09	968.72	1143.90
10th	809.65	946.78	1109.76	856.97	981.86	1167.99
Mean for district type						
Below median ADM	850.13	953.12	1109.30	778.96	902.58	1057.57
Above median ADM	755.96	885.98	1048.21	810.65	976.84	1121.76
Below median % urban	844.88	951.49	1117.40	778.42	900.34	1059.64
Above median % urban	763.20	889.25	1040.18	812.97	981.51	1120.16
Below median % white	778.00	899.88	1059.33	786.60	948.83	1078.86
Above median % white	830.08	940.86	1098.26	804.79	933.01	1100.94
Below median % poverty	805.36	926.37	1082.53	816.44	976.88	1124.21
Above median % poverty	802.73	914.37	1075.06	774.95	904.96	1055.58
Correlation with						
ADM	-0.039	0.099	0.046	0.316	0.531	0.434
Adj. wealth	0.665	0.562	0.656	0.543	0.370	0.554
Income	-0.051	0.082	0.078	0.283	0.418	0.414
% Urban	-0.250	-0.101	-0.120	-0.095	0.145	0.057
% White	0.229	0.147	0.164	0.259	0.079	0.182
% Poverty	0.032	0.001	-0.065	-0.265	-0.281	-0.349
Adj. tax rate	-0.160	0.339	0.042	0.223	0.583	0.343
Gini by adj. wealth distribution	0.170	0.193	0.193	0.129	0.154	0.151
Gini by income distribution	0.164	0.151	0.155	0.125	0.121	0.122

Table A.49  
DISTRIBUTION OF INSTRUCTIONAL EXPENDITURES PER Pupil  
IN KANSAS DISTRICTS WITH ADM 1300 AND ABOVE

Measure	1972-73	Unweighted 1973-74	1974-75	1972-73	Weighted 1973-74	1974-75
Percentile						
100th	807.61	804.11	884.46	807.61	804.11	884.46
95th	631.58	652.49	721.85	636.30	635.93	710.21
75th	564.03	588.29	672.68	624.25	630.87	693.57
50th (median)	536.94	564.38	625.57	547.57	577.26	639.24
25th	502.73	527.36	590.85	523.38	528.64	593.39
5th	456.32	476.99	545.07	462.39	492.93	553.79
1st	436.98	425.14	468.50	436.98	425.14	468.50
Range	370.63	378.97	415.97	370.63	378.97	415.97
Restricted range	175.26	175.50	176.79	173.91	143.00	156.42
Restricted range ratio	0.384	0.368	0.324	0.376	0.290	0.282
Mean deviation from median	44.26	44.23	48.49	51.72	47.79	50.68
Relative deviation from median	0.082	0.078	0.078	0.094	0.083	0.079
Mean	541.27	562.09	632.25	562.97	574.92	643.23
Standard deviation	62.822	60.612	66.934	61.621	57.138	60.472
Coefficient of variation	0.116	0.108	0.106	0.109	0.099	0.094
Mean deviation from mean	44.53	44.24	48.94	52.50	47.86	50.61
Relative deviation from mean	0.082	0.079	0.077	0.093	0.083	0.079
Gini coefficient	0.061	0.057	0.056	0.061	0.055	0.052
Regression results						
Adj. wealth: Linear F	24.114	23.535	27.883	7.538	12.522	16.225
Elasticity	0.140	0.124	0.124	0.110	0.117	0.116
Quadratic F	12.020	11.578	13.721	3.828	6.723	8.739
Elasticity	0.127	0.124	0.125	0.127	0.145	0.145
Income: Linear F	0.890	3.077	2.036	29.042	30.576	24.655
Elasticity	0.057	0.097	0.074	0.258	0.238	0.202
Quadratic F	1.049	1.549	1.073	18.961	18.445	16.509
Elasticity	0.046	0.094	0.070	0.291	0.264	0.233
Adj. tax rate: Linear F	0.222	7.291	1.128	14.467	25.897	13.308
Elasticity	-0.026	0.145	0.089	0.214	0.236	0.264
Quadratic F	0.770	7.176	1.208	7.581	14.415	9.170
Elasticity	-0.047	0.255	0.072	0.223	0.242	0.317
Mean for adj. wealth decile						
1st	519.61	528.70	579.59	521.20	530.26	595.02
2nd	498.95	529.20	606.24	507.94	530.31	568.91
3rd	524.57	534.85	606.52	523.08	516.36	609.66
4th	526.71	581.21	653.30	562.30	583.05	662.26
5th	537.28	551.30	610.87	610.16	630.87	689.43
6th	546.55	546.36	629.29	620.01	597.69	662.32
7th	548.47	582.56	641.94	544.02	556.17	642.82
8th	519.98	541.52	653.80	624.25	631.01	706.86
9th	552.83	573.14	600.90	537.86	587.52	628.49
10th	637.72	652.04	740.05	578.86	585.94	666.54
Mean for income decile						
1st	529.34	530.27	613.40	531.19	533.59	607.14
2nd	547.53	552.19	621.85	515.74	544.13	619.04
3rd	529.35	573.34	623.04	531.99	549.52	622.00
4th	530.81	543.41	622.44	524.50	561.15	627.84
5th	525.75	558.65	644.57	531.34	519.01	582.78
6th	563.25	547.12	618.86	551.22	573.99	630.56
7th	529.59	596.07	659.87	636.30	630.87	662.69
8th	534.59	548.45	619.52	614.85	600.19	693.57
9th	557.68	586.41	653.59	573.19	605.27	685.69
10th	566.21	587.15	651.76	624.25	635.93	710.21
Mean for district type						
Below median ADM	549.13	571.22	640.96	533.22	553.97	622.20
Above median ADM	533.40	552.95	623.54	592.71	595.86	664.26
Below median % urban	548.40	565.68	639.38	530.10	554.11	623.86
Above median % urban	534.42	558.93	626.40	596.82	596.63	664.44
Below median % white	532.21	552.33	623.71	566.71	570.07	635.69
Above median % white	550.61	572.28	642.07	560.20	580.66	652.61
Below median % poverty	550.21	562.98	632.21	587.47	594.90	664.31
Above median % poverty	532.61	561.63	633.58	539.45	555.83	623.99
Correlation with						
ADM	0.196	0.122	0.095	0.645	0.499	0.455
Adj. wealth	0.523	0.525	0.554	0.325	0.410	0.453
Income	0.118	0.219	0.178	0.562	0.578	0.533
% Urban	-0.033	0.067	0.045	0.238	0.233	0.211
% White	0.072	0.152	0.172	0.052	0.276	0.319
% Poverty	-0.170	-0.039	-0.050	-0.456	-0.414	-0.422
Adj. tax rate	-0.059	0.324	0.133	0.429	0.543	0.418
Gini by adj. wealth distribution	0.189	0.202	0.206	0.143	0.149	0.154
Gini by income distribution	0.141	0.137	0.145	0.107	0.109	0.116

Table A.5b  
DISTRIBUTION OF LOCAL ADJUSTED TAX RATES  
IN KANSAS DISTRICTS WITH ADM 1400 AND ABOVE

Measure	1972-73	Unweighted 1973-74	1974-75	1972-73	Weighted 1973-74	1974-75
Percentile						
100th	13.53	12.85	10.76	13.53	12.85	10.76
95th	10.69	9.41	8.75	9.99	9.84	9.17
75th	7.99	6.75	7.48	9.25	8.61	8.71
50th (median)	6.95	6.10	6.94	8.40	7.51	7.64
25th	5.58	5.22	6.22	6.79	6.12	6.93
5th	4.25	4.27	4.97	4.88	4.69	5.69
1st	2.49	4.06	4.36	2.49	4.06	4.36
Range	11.04	8.79	6.46	11.04	8.79	6.46
Restricted range	5.84	5.14	3.78	5.11	5.15	3.48
Restricted range ratio	1.375	1.205	0.761	1.046	1.096	0.611
Mean deviation from median	1.40	1.05	0.78	1.41	1.44	0.97
Relative deviation from median	0.202	0.172	0.113	0.168	0.192	0.127
Mean	6.99	6.29	6.89	8.06	7.38	7.70
Standard deviation	1.867	1.520	1.083	1.771	1.689	1.146
Coefficient of variation	0.267	0.242	0.157	0.220	0.229	0.149
Mean deviation from mean	1.40	1.06	0.78	1.45	1.44	0.97
Relative deviation from mean	0.200	0.169	0.114	0.180	0.196	0.126
Gini coefficient	0.146	0.124	0.084	0.122	0.130	0.083
Regression results						
Adj. wealth: Linear F	46.991	2.883	15.671	15.760	2.249	6.813
Elasticity	-0.402	-0.112	-0.148	-0.303	-0.124	-0.126
Quadratic F	26.308	1.544	7.763	7.853	1.228	3.809
Elasticity	-0.514	-0.145	-0.160	-0.277	-0.089	-0.086
Income: Linear F	0.075	14.870	21.784	11.158	50.342	64.747
Elasticity	0.038	0.437	0.316	0.359	0.639	0.428
Quadratic F	1.205	7.337	10.756	7.269	24.793	32.509
Elasticity	0.003	0.433	0.313	0.411	0.644	0.442
Mean for adj. wealth decile						
1st	8.83	6.60	7.67	8.44	7.07	7.30
2nd	8.37	7.05	7.34	8.07	6.55	8.09
3rd	8.09	6.41	6.54	8.03	7.58	7.17
4th	7.69	6.88	7.65	8.53	8.09	8.31
5th	7.14	6.18	6.85	9.52	9.23	8.61
6th	7.20	6.06	7.30	9.55	8.05	8.12
7th	6.54	6.75	6.84	7.15	6.20	7.48
8th	5.55	5.22	6.85	9.25	8.35	8.82
9th	5.69	5.46	5.68	6.51	6.93	6.81
10th	4.85	6.27	6.20	5.51	5.74	6.26
Mean for income decile						
1st	8.97	4.99	6.10	7.95	5.24	6.32
2nd	5.67	5.24	5.81	6.78	6.85	6.97
3rd	6.32	5.87	6.63	6.82	6.03	6.99
4th	6.64	6.63	6.92	7.74	6.68	7.25
5th	6.61	6.66	7.24	7.48	7.11	8.00
6th	7.02	5.89	6.61	7.19	6.93	6.98
7th	7.17	6.35	7.16	9.99	9.23	8.00
8th	7.13	6.57	7.31	9.61	8.30	8.71
9th	6.40	6.81	7.15	7.77	8.90	9.04
10th	7.87	7.79	8.02	9.25	8.61	8.86
Mean for district type						
Below median ADM	6.43	6.01	6.57	7.06	6.21	6.84
Above median ADM	7.56	6.56	7.22	9.05	8.55	8.55
Below median % urban	6.57	5.90	6.48	6.90	6.17	6.85
Above median % urban	7.39	6.66	7.31	9.22	8.60	8.57
Below median % white	7.23	6.63	7.29	8.65	8.01	8.11
Above median % white	6.73	5.93	6.49	7.47	6.77	7.31
Below median % poverty	7.81	6.59	7.12	8.93	8.05	8.15
Above median % poverty	6.15	5.97	6.67	7.19	6.72	7.28
Correlation with						
ADM	0.322	0.413	0.431	0.663	0.711	0.734
Adj. wealth	-0.651	-0.211	-0.446	-0.445	-0.187	-0.312
Income	0.034	0.443	0.510	0.388	0.672	0.715
% Urban	0.139	0.258	0.400	0.381	0.493	0.585
% White	-0.229	-0.316	-0.343	-0.219	-0.259	-0.280
% Poverty	-0.432	-0.212	-0.193	-0.446	-0.384	-0.400
Gini by adj. wealth distribution	0.323	0.273	0.272	0.219	0.221	0.204
Gini by income distribution	0.192	0.130	0.122	0.135	0.099	0.097

Table A.31  
DISTRIBUTION OF GENERAL REVENUE PER FUPIL  
IN MICHIGAN

Measure	1971-72	1972-73	Unweighted 1973-74	1974-75	1975-76
Percentile					
100th	1443.46	1589.60	1792.39	1897.02	2383.77
95th	996.79	1105.76	1208.54	1342.76	1495.44
75th	835.03	911.53	1010.42	1124.04	1227.85
50th (median)	765.91	830.79	933.24	1037.16	1157.32
25th	714.84	778.94	862.36	961.50	1065.98
5th	657.18	716.76	760.33	870.79	956.76
1st	586.62	541.28	667.04	729.18	845.50
Range	856.78	1048.32	1125.35	1167.84	1538.22
Restricted range	339.61	388.94	448.21	471.37	538.68
Restricted range ratio	0.517	0.543	0.589	0.541	0.563
Mean deviation from median	80.31	88.63	98.32	107.32	116.52
Relative deviation from median	0.105	0.107	0.105	0.103	0.102
Mean	789.82	860.76	952.20	1057.27	1168.35
Standard deviation	115.041	129.984	142.414	149.996	174.100
Coefficient of variation	0.146	0.151	0.150	0.142	0.149
Mean deviation from mean	83.19	92.36	99.80	108.76	120.07
Relative deviation from mean	0.105	0.107	0.105	0.103	0.103
Gini coefficient	0.075	0.076	0.077	0.074	0.074
Regression results					
Adj. wealth: Linear F	229.031	284.780	287.482	200.927	199.845
Elasticity	0.155	0.166	0.158	0.124	0.130
Quadratic F	115.015	142.607	143.490	105.695	100.878
Elasticity	0.166	0.158	0.156	0.149	0.141
Income: Linear F	131.209	161.159	168.619	171.386	93.391
Elasticity	0.162	0.166	0.166	0.157	0.209
Quadratic F	104.046	110.240	108.572	112.832	47.208
Elasticity	0.264	0.250	0.245	0.237	0.194
Adj. tax rate: Linear F	342.085	293.261	315.775	234.278	172.895
Elasticity	0.430	0.437	0.501	0.500	0.497
Quadratic F	171.954	150.413	161.925	159.153	136.004
Elasticity	0.423	0.421	0.478	0.428	0.438
Mean for adj. wealth decile					
1st	718.35	779.58	886.18	990.52	1098.53
2nd	736.47	805.13	881.63	1003.55	1128.96
3rd	752.92	812.76	889.89	1009.98	1115.33
4th	754.13	818.52	913.00	1005.02	1117.47
5th	758.33	828.91	940.64	1036.79	1145.47
6th	783.87	857.72	958.43	1048.40	1143.73
7th	799.02	865.53	929.39	1068.63	1162.63
8th	799.82	887.06	976.73	1040.86	1151.91
9th	845.87	904.77	979.99	1096.97	1182.33
10th	949.39	1047.58	1166.14	1272.02	1437.10
Mean for income decile					
1st	751.79	811.08	895.54	981.23	1101.06
2nd	727.73	798.84	879.86	981.02	1109.19
3rd	735.91	792.66	878.17	997.82	1127.87
4th	734.21	806.66	874.52	970.18	1142.09
5th	766.24	826.38	923.55	1021.76	1145.31
6th	786.57	858.24	956.63	1055.39	1136.40
7th	786.80	838.94	939.46	1056.07	1142.42
8th	801.72	883.57	980.43	1073.90	1150.97
9th	856.87	919.78	1034.67	1153.43	1232.65
10th	940.35	1021.72	1119.65	1246.01	1343.23
Mean for district type					
Below median ADM	762.20	832.45	919.36	1022.42	1130.18
Above median ADM	817.43	889.06	985.05	1092.13	1206.51
Below median % urban	747.21	811.88	898.22	1000.03	1107.15
Above median % urban	830.43	899.70	998.28	1107.33	1219.09
Below median % white	799.45	865.59	959.65	1062.25	1166.52
Above median % white	778.18	845.98	936.84	1045.11	1159.72
Below median % poverty	820.16	890.08	985.71	1096.44	1207.60
Above median % poverty	757.47	821.49	910.78	1010.92	1118.64
Correlation with					
ADM	0.107	0.057	0.106	0.100	0.096
Adj. wealth	0.552	0.594	0.596	0.528	0.524
Income	0.475	0.514	0.523	0.526	0.413
% Urban	0.503	0.490	0.502	0.510	0.478
% White	-0.206	-0.197	-0.199	-0.199	-0.151
% Poverty	-0.331	-0.328	-0.328	-0.355	-0.334
Adj. tax rate	0.629	0.600	0.614	0.557	0.497
Gini by adj. wealth distribution	0.224	0.229	0.233	0.243	0.242
Gini by income distribution	0.152	0.159	0.167	0.175	0.131

Table A.51  
DISTRIBUTION OF GENERAL REVENUE PER POPUL  
IN MICHIGAN (continued)

Measure	1971-72	1972-73	Weighted 1973-74	1974-75	1975-76
Percentile					
100th	1443.46	1589.60	1792.39	1897.00	2383.72
95th	1075.98	1172.04	1262.86	1421.58	1584.90
75th	902.06	967.78	1071.29	1178.57	1282.94
50th (median)	790.31	861.18	962.23	1076.34	1186.12
25th	751.08	780.46	922.68	1001.93	1095.78
5th	682.12	691.84	799.25	896.10	999.43
1st	586.62	541.28	667.04	729.18	845.56
Range	856.78	1048.32	1125.35	1167.84	1538.22
Restricted range	391.86	480.20	463.55	525.48	585.46
Restricted range ratio	0.574	0.694	0.580	0.586	0.586
Mean deviation from median	95.77	116.18	105.40	117.91	129.60
Relative deviation from median	0.121	0.135	0.110	0.110	0.109
Mean	829.72	884.39	998.85	1102.66	1218.45
Standard deviation	127.989	151.962	148.297	160.162	194.461
Coefficient of variation	0.154	0.172	0.148	0.145	0.160
Mean deviation from mean	99.31	117.35	108.58	118.98	132.67
Relative deviation from mean	0.120	0.133	0.109	0.108	0.109
Gini coefficient	0.081	0.093	0.076	0.076	0.078
Regression results					
Adj. wealth: Linear F	422.158	280.729	381.759	343.593	343.085
Elasticity	0.257	0.252	0.235	0.216	0.232
Quadratic F	211.052	141.819	190.699	177.033	174.369
Elasticity	0.251	0.233	0.240	0.238	0.249
Income: Linear F	310.574	232.168	324.133	287.730	139.870
Elasticity	0.276	0.268	0.232	0.214	0.207
Quadratic F	155.066	118.362	161.941	143.843	69.899
Elasticity	0.271	0.239	0.238	0.221	0.201
Adj. tax rate: Linear F	371.710	686.123	559.563	475.569	330.853
Elasticity	0.501	0.544	0.601	0.658	0.706
Quadratic F	186.664	342.749	282.338	237.491	168.698
Elasticity	0.504	0.543	0.610	0.654	0.689
Mean for adj. wealth decile					
1st	735.82	800.67	890.27	1003.91	1120.54
2nd	751.16	820.48	911.67	1023.51	1127.31
3rd	789.40	850.92	960.22	1068.96	1202.34
4th	807.32	876.56	992.83	1069.96	1189.90
5th	816.90	884.66	954.71	1016.09	1102.82
6th	803.00	691.84	927.13	1069.10	1207.11
7th	777.47	874.06	1028.73	1129.46	1192.11
8th	835.37	938.48	1048.35	1123.39	1230.05
9th	925.12	983.46	1038.76	1155.48	1266.82
10th	1055.65	1122.77	1235.85	1366.74	1545.53
Mean for income decile					
1st	752.70	808.35	888.21	990.30	1103.83
2nd	736.82	802.05	881.01	990.22	1099.36
3rd	790.68	865.30	959.56	1058.86	1200.99
4th	808.40	861.17	963.81	1067.12	1231.86
5th	796.50	921.51	1018.07	1102.96	1208.46
6th	751.08	691.84	949.81	1058.94	1159.46
7th	847.90	820.64	958.19	1021.22	1177.62
8th	852.11	934.69	1052.77	1186.72	1257.62
9th	927.34	980.49	1078.54	1188.16	1272.22
10th	997.96	1092.65	1189.91	1314.69	1377.05
Mean for district type					
Below median ADM	794.59	860.51	951.55	1056.20	1165.79
Above median ADM	864.85	908.27	1046.15	1149.12	1271.12
Below median % urban	789.95	853.21	936.23	1039.14	1143.86
Above median % urban	862.35	902.52	1051.74	1156.69	1273.83
Below median % white	831.04	863.91	1004.57	1099.64	1209.59
Above median % white	821.25	891.82	983.40	1096.20	1208.11
Below median % poverty	862.64	933.82	1030.00	1144.53	1260.40
Above median % poverty	789.65	821.91	957.97	1051.31	1157.30
Correlation with					
ADM	-0.207	-0.458	-0.139	-0.194	-0.189
Adj. wealth	0.669	0.592	0.650	0.630	0.628
Income	0.639	0.584	0.647	0.625	0.485
% Urban	0.414	0.270	0.495	0.463	0.449
% White	0.141	0.371	0.042	0.115	0.117
% Poverty	-0.389	-0.472	-0.368	-0.415	-0.404
Adj. tax rate	0.645	0.754	0.720	0.691	0.621
Gini by adj. wealth distribution	0.166	0.176	0.168	0.172	0.172
Gini by income distribution	0.133	0.150	0.149	0.158	0.142

Table A-32  
DISTRIBUTION OF GENERAL + STATE REVENUE PER CAPITA  
IN MICHIGAN

Measure	1971-72	1972-73	Income split: 1971-72	1974-75	1975-76
Percentile					
100th	1446.46	1506.11	1891.88	1926.16	2409.36
95th	1027.72	1117.61	1529.14	1590.41	1735.41
75th	839.17	926.94	1026.12	1137.10	1242.57
50th (Median)	773.20	839.11	939.33	1050.08	1149.51
25th	720.94	788.04	875.63	972.19	1083.43
5th	667.62	720.58	767.16	861.41	972.07
1st	605.18	641.28	663.52	757.02	856.16
Range	841.28	1054.84	1228.36	1169.17	1574.20
Restricted range	366.10	411.23	471.98	509.01	566.46
Restricted range ratio	0.553	0.566	0.615	0.578	0.575
Mean deviation from median	82.44	90.78	100.16	110.95	120.26
Relative deviation from median	0.107	0.108	0.107	0.106	0.105
Mean	798.88	871.09	962.77	1075.43	1187.60
Standard deviation	118.754	132.603	144.963	156.055	162.606
Coefficient of variation	0.149	0.152	0.151	0.145	0.154
Mean deviation from mean	85.86	94.90	102.22	112.95	124.94
Relative deviation from mean	0.107	0.109	0.106	0.105	0.105
Gini coefficient	0.076	0.077	0.078	0.076	0.076
Regression results					
Adj. wealth: linear F	226.725	268.069	272.083	194.466	189.517
Elasticity	0.158	0.164	0.156	0.126	0.131
Quadratic F	113.221	134.606	135.838	103.508	96.033
Elasticity	0.161	0.153	0.153	0.154	0.145
Income: Linear F	124.297	158.144	165.637	164.690	70.996
Elasticity	0.159	0.165	0.165	0.156	0.187
Quadratic F	94.271	102.786	103.052	102.755	36.771
Elasticity	0.254	0.242	0.239	0.228	0.163
Adj. tax rate: Linear F	251.254	234.161	254.569	189.811	135.035
Elasticity	0.397	0.409	0.471	0.475	0.466
Quadratic F	130.542	129.384	138.328	136.226	112.976
Elasticity	0.383	0.379	0.430	0.398	0.404
Mean for adj. wealth decile					
1st	734.40	795.66	905.74	1012.85	1125.05
2nd	741.71	815.07	892.78	1019.81	1147.56
3rd	759.86	820.75	896.26	1017.47	1130.63
4th	765.24	826.48	921.91	1015.17	1130.29
5th	761.70	838.08	944.74	1049.27	1159.53
6th	789.15	866.44	969.03	1061.59	1162.96
7th	804.28	874.17	935.61	1084.29	1179.14
8th	807.07	899.25	986.54	1052.84	1162.26
9th	857.98	913.46	989.84	1115.65	1202.60
10th	967.36	1061.50	1184.61	1305.34	1475.98
Mean for income decile					
1st	767.31	827.65	913.12	995.91	1134.81
2nd	739.76	808.36	887.62	1001.05	1130.94
3rd	740.85	803.21	889.88	1010.66	1151.05
4th	739.12	813.39	881.37	983.20	1155.04
5th	771.88	833.85	927.23	1031.05	1159.97
6th	790.24	861.40	961.27	1065.46	1155.61
7th	789.79	842.29	941.64	1065.58	1150.17
8th	806.73	889.74	986.61	1079.84	1161.60
9th	866.71	933.48	1045.47	1170.64	1242.99
10th	946.29	1030.72	1130.22	1258.77	1349.44
Mean for district type					
Below median ADM	771.48	842.77	930.42	1040.88	1152.47
Above median ADM	826.27	899.40	994.99	1105.98	1222.73
Below median % urban	752.80	819.13	904.60	1010.23	1121.85
Above median % urban	838.94	909.69	1008.28	1122.20	1236.48
Below median % white	809.07	877.42	970.86	1079.20	1187.70
Above median % white	782.67	851.40	942.03	1053.23	1170.63
Below median % poverty	823.94	894.99	990.10	1104.37	1217.10
Above median % poverty	767.79	833.83	922.79	1028.07	1141.22
Correlation with					
ADM	0.120	0.072	0.115	0.104	0.101
Adj. wealth	0.550	0.583	0.586	0.521	0.514
Income	0.465	0.510	0.519	0.518	0.368
% Urban	0.513	0.498	0.514	0.521	0.483
% White	-0.248	-0.249	-0.245	-0.251	-0.207
% Poverty	-0.282	-0.279	-0.283	-0.304	-0.281
Adj. tax rate	0.570	0.557	0.573	0.517	0.452
Gini by adj. wealth distribution	0.224	0.229	0.233	0.242	0.242
Gini by income distribution	0.153	0.160	0.168	0.176	0.135



Mean	1059.88	1127.57	1242.87	1381.03	1564.77
Standard deviation	894.96	961.37	1013.97	1121.79	1242.87
Coefficient of variation	0.151	0.166	0.148	0.145	0.160
Mean deviation from mean	96.91	115.64	109.52	121.24	136.71
Relative deviation from mean	0.115	0.125	0.108	0.108	0.110
Gini coefficient	0.080	0.089	0.077	0.076	0.078
Regression results:					
Adj. wealth: Linear F	436.048	293.225	359.080	119.122	299.225
Elasticity	0.254	0.246	0.230	0.210	0.223
Quadratic F	217.412	147.056	179.581	165.164	151.605
Elasticity	0.255	0.245	0.236	0.253	0.238
Income: Linear F	312.623	259.337	328.272	287.400	86.943
Elasticity	0.271	0.268	0.235	0.216	0.172
Quadratic F	156.012	130.299	165.324	145.029	44.698
Elasticity	0.274	0.252	0.251	0.233	0.150
Adj. tax rate: Linear F	285.520	532.294	468.514	439.305	295.808
Elasticity	0.451	0.494	0.573	0.642	0.684
Quadratic F	142.490	270.278	233.829	219.612	150.581
Elasticity	0.451	0.498	0.574	0.636	0.667
Mean for adj. wealth decile					
1st	749.56	815.07	905.94	1023.79	1143.87
2nd	759.77	826.63	917.10	1032.44	1139.38
3rd	793.88	855.80	965.31	1077.26	1215.31
4th	811.28	887.63	1003.78	1078.04	1229.99
5th	822.76	892.89	964.55	1053.93	1155.78
6th	831.21	741.18	966.55	1103.38	1237.08
7th	820.46	898.02	1055.87	1163.58	1216.14
8th	854.36	965.98	1063.81	1137.09	1246.06
9th	946.43	1002.98	1054.98	1177.32	1280.32
10th	1059.88	1127.57	1242.87	1381.03	1564.77
Mean for income decile					
1st	767.82	824.12	899.08	1007.01	1155.66
2nd	741.81	809.30	892.06	1004.42	1143.12
3rd	794.58	869.17	964.13	1067.75	1226.76
4th	811.07	863.44	966.09	1074.62	1262.87
5th	814.48	926.81	1022.50	1109.22	1245.88
6th	802.55	741.18	976.43	1084.41	1175.60
7th	859.58	842.65	987.52	1066.40	1186.92
8th	873.40	966.94	1078.17	1218.80	1272.82
9th	946.02	1008.20	1105.13	1220.18	1276.92
10th	1005.16	1099.50	1200.68	1328.52	1386.29
Mean for district type					
Below median ADM	802.33	869.73	960.77	1069.34	1181.29
Above median ADM	887.59	933.02	1067.38	1176.23	1304.45
Below median % urban	796.38	860.84	943.06	1049.90	1157.21
Above median % urban	886.91	929.43	1075.30	1186.37	1309.36
Below median % white	858.95	894.25	1030.96	1132.92	1249.01
Above median % white	824.34	896.02	987.40	1103.35	1217.56
Below median % poverty	865.93	937.82	1034.10	1151.57	1269.44
Above median % poverty	817.37	852.44	984.26	1084.70	1197.12
Correlation with					
ADM	-0.094	-0.378	-0.072	-0.132	-0.119
Adj. wealth	0.675	0.600	0.639	0.616	0.602
Income	0.640	0.605	0.650	0.625	0.401
% Urban	0.482	0.336	0.540	0.514	0.501
% White	0.000	0.255	-0.062	0.010	-0.000
% Poverty	-0.285	-0.388	-0.279	-0.325	-0.308
Adj. tax rate	0.595	0.711	0.688	0.676	0.600
Gini by adj. wealth distribution	0.164	0.173	0.168	0.172	0.175
Gini by income distribution	0.131	0.146	0.147	0.157	0.149

Table A.5.  
DISTRIBUTION OF LOCAL + STATE REVENUE PER PUPIL  
IN MICHIGAN

Measure	1971-72	1972-73	Unweighted 1973-74	1974-75	1975-76
Percentile					
100th	1498.22	1878.02	1864.40	1975.41	2740.89
95th	1057.44	1154.54	1295.05	1412.48	1567.87
75th	875.78	961.83	1076.49	1194.55	1289.95
50th (median)	810.09	884.07	1001.87	1110.54	1197.01
25th	757.45	833.05	935.92	1034.85	1117.99
5th	703.09	767.65	835.65	949.00	1015.42
1st	650.50	649.51	733.64	816.80	860.42
Range	847.72	1228.51	1130.76	1158.51	1880.47
Restricted range	354.36	386.89	459.40	473.18	542.45
Restricted range ratio	0.504	0.504	0.550	0.504	0.534
Mean deviation from median	81.40	89.34	98.57	109.12	120.95
Relative deviation from median	0.100	0.101	0.098	0.098	0.101
Mean	835.25	916.00	1022.72	1131.86	1230.13
Standard deviation	119.026	134.106	143.802	150.954	184.137
Coefficient of variation	0.143	0.146	0.141	0.133	0.150
Mean deviation from mean	84.81	93.56	100.16	110.24	124.46
Relative deviation from mean	0.102	0.102	0.098	0.097	0.102
Gini coefficient	0.072	0.072	0.072	0.070	0.073
Regression results					
Adj. wealth: Linear F	294.235	291.784	267.616	191.941	180.109
Elasticity	0.165	0.162	0.145	0.115	0.125
Quadratic F	147.259	145.679	133.576	101.605	91.551
Elasticity	0.173	0.159	0.143	0.139	0.139
Income: Linear F	115.780	153.826	162.057	155.979	75.678
Elasticity	0.152	0.154	0.152	0.142	0.188
Quadratic F	85.692	101.202	101.224	98.343	38.847
Elasticity	0.241	0.228	0.221	0.210	0.168
Adj. tax rate: Linear F	244.654	245.774	283.869	210.194	164.583
Elasticity	0.377	0.400	0.456	0.452	0.490
Quadratic F	123.890	127.344	147.571	141.812	125.940
Elasticity	0.369	0.382	0.429	0.387	0.433
Mean for adj. wealth decile					
1st					
2nd	761.54	832.87	959.98	1061.59	1156.97
3rd	784.85	857.33	954.51	1080.80	1187.82
4th	790.34	865.16	960.69	1085.24	1166.57
5th	792.84	871.51	981.17	1076.51	1176.26
6th	798.78	879.90	1009.90	1113.61	1206.65
7th	827.74	912.05	1029.84	1120.80	1207.79
8th	838.95	917.95	996.15	1141.70	1227.36
9th	843.37	943.58	1052.04	1114.07	1222.76
10th	896.58	969.99	1048.81	1180.85	1250.28
Mean for income decile	1017.46	1109.61	1234.13	1343.45	1498.86
1st					
2nd	807.57	870.89	974.50	1065.54	1170.82
3rd	772.78	852.85	950.18	1056.47	1172.74
4th	779.40	844.11	953.34	1077.79	1201.84
5th	777.31	867.59	946.22	1042.31	1201.66
6th	811.38	877.69	989.24	1097.08	1205.84
7th	823.58	911.43	1025.49	1125.91	1193.73
8th	827.47	888.65	1006.26	1127.19	1200.56
9th	837.81	936.46	1045.83	1137.73	1214.07
10th	907.29	974.77	1108.27	1232.19	1282.14
Mean for district type	980.69	1073.27	1187.14	1313.78	1401.03
Below median ADM	812.15	891.29	992.47	1101.34	1191.92
Above median ADM	858.34	940.70	1052.98	1162.38	1268.35
Below median % urban	796.73	869.92	974.10	1081.22	1171.15
Above median % urban	868.33	949.62	1063.20	1173.98	1277.74
Below median % white	846.10	924.25	1032.47	1140.15	1232.79
Above median % white	818.96	895.29	1004.83	1115.05	1216.10
Below median % poverty	857.88	938.96	1050.85	1163.14	1264.61
Above median % poverty	807.18	880.58	986.45	1092.06	1184.28
Correlation with					
ADM					
Adj. wealth	0.123	0.074	0.128	0.125	0.130
Income	0.600	0.599	0.583	0.519	0.505
% Urban	0.452	0.505	0.515	0.508	0.378
% White	0.450	0.465	0.472	0.467	0.457
% Poverty	-0.287	-0.273	-0.271	-0.268	-0.238
Adj. tax rate	-0.255	-0.270	-0.273	-0.285	-0.290
Gini by adj. wealth distribution	0.565	0.566	0.594	0.536	0.488
Gini by income distribution	0.222	0.228	0.235	0.244	0.243
	0.155	0.161	0.169	0.178	0.134

Table A.3  
DISTRIBUTION OF LOCAL + STATE REVENUE PER CAPITA  
IN MICHIGAN (continued)

Measure	1971-72	1972-73	Weighted 1973-74	1974-75	1975-76
Percentile					
100th	1498.22	1878.62	1869.48	1975.31	2740.89
95th	1141.62	1236.62	1567.76	1505.06	1648.90
75th	947.03	1041.29	1132.36	1254.86	1361.76
50th (median)	862.88	913.16	1079.30	1187.61	1270.00
25th	790.11	830.77	983.27	1090.44	1183.45
5th	716.96	791.56	879.71	968.05	1050.39
1st	650.50	649.51	733.64	816.80	860.42
Range	847.72	1228.51	1130.76	1158.51	1880.47
Restricted range	422.06	439.12	487.99	536.95	598.51
Restricted range ratio	0.587	0.555	0.555	0.555	0.570
Mean deviation from median	91.95	109.87	102.77	110.66	130.48
Relative deviation from median	0.107	0.120	0.095	0.093	0.103
Mean	882.42	947.64	1079.30	1189.08	1301.85
Standard deviation	130.961	146.280	148.236	157.024	215.973
Coefficient of variation	0.148	0.154	0.137	0.132	0.166
Mean deviation from mean	95.60	112.37	102.77	111.05	136.04
Relative deviation from mean	0.108	0.119	0.095	0.093	0.105
Gini coefficient	0.078	0.081	0.071	0.070	0.077
Regression results					
Adj. wealth: Linear F	540.999	339.309	355.205	315.658	270.514
Elasticity	0.264	0.240	0.213	0.191	0.224
Quadratic F	270.161	169.330	178.800	164.887	137.555
Elasticity	0.268	0.240	0.225	0.215	0.241
Income: Linear F	313.632	284.789	347.920	330.624	60.219
Elasticity	0.266	0.255	0.221	0.205	0.144
Quadratic F	156.663	142.407	177.413	170.888	33.950
Elasticity	0.272	0.247	0.244	0.233	0.106
Adj. tax rate: Linear F	253.978	499.626	450.805	406.871	251.480
Elasticity	0.427	0.453	0.527	0.574	0.672
Quadratic F	127.898	253.912	227.689	203.635	125.630
Elasticity	0.431	0.457	0.535	0.581	0.668
Mean for adj. wealth decile					
1st	778.08	850.46	961.67	1072.51	1178.78
2nd	787.63	868.67	979.16	1096.30	1181.87
3rd	827.28	902.52	1027.31	1140.09	1262.65
4th	846.96	926.01	1066.72	1139.46	1311.49
5th	855.88	937.20	1031.03	1181.75	1264.54
6th	872.10	814.98	1081.03	1195.45	1284.28
7th	876.92	947.49	1110.87	1202.01	1257.64
8th	884.26	1006.84	1125.59	1196.08	1300.93
9th	984.71	1051.15	1114.24	1235.92	1348.84
10th	1110.37	1171.11	1295.38	1431.24	1627.47
Mean for income decile					
1st	797.11	860.25	959.74	1064.94	1244.09
2nd	779.14	855.01	954.73	1065.74	1234.40
3rd	829.16	917.22	1026.46	1131.61	1288.16
4th	847.33	904.69	1025.14	1130.18	1321.62
5th	851.31	975.36	1079.01	1158.88	1278.47
6th	862.88	814.98	1073.23	1186.48	1229.34
7th	902.61	899.77	1085.32	1199.35	1232.35
8th	895.80	1002.30	1133.41	1261.19	1315.52
9th	983.03	1044.81	1156.07	1274.89	1331.10
10th	1045.84	1147.49	1264.01	1387.02	1446.03
Mean for district type					
Below median ADM	834.98	910.91	1019.03	1126.98	1223.05
Above median ADM	929.86	984.38	1139.57	1251.18	1380.65
Below median % urban	829.81	904.66	1004.31	1109.90	1203.61
Above median % urban	929.03	979.72	1147.11	1262.15	1380.61
Below median % white	902.93	948.04	1106.23	1213.70	1320.44
Above median % white	855.92	936.34	1045.20	1158.36	1263.78
Below median % poverty	898.90	979.81	1091.54	1205.98	1321.02
Above median % poverty	859.95	904.57	1059.88	1166.07	1263.20
Correlation with					
ADM	-0.025	-0.315	0.049	0.039	-0.012
Adj. wealth	0.713	0.628	0.637	0.614	0.582
Income	0.641	0.623	0.661	0.651	0.342
% Urban	0.478	0.353	0.559	0.548	0.536
% White	-0.076	0.191	-0.190	-0.162	-0.131
% Poverty	-0.239	-0.360	-0.207	-0.231	-0.253
Adj. tax rate	0.572	0.700	0.681	0.662	0.568
Gini by adj. wealth distribution	0.161	0.170	0.170	0.174	0.176
Gini by income distribution	0.131	0.143	0.147	0.155	0.154

Table A.54  
DISTRIBUTION OF LOCAL + STATE + FEDERAL REVENUE PER PERSON  
IN MICHIGAN

Measure	1971-72	1972-73	Unweighted 1973-74	1974-75	1975-76
Percentile					
100th	1501.28	1884.54	1874.89	2004.48	2781.57
95th	1091.51	1187.15	1311.86	1461.79	1609.78
75th	884.93	971.79	1090.46	1211.87	1304.83
50th (median)	814.89	892.96	1010.66	1125.84	1212.69
25th	765.93	841.72	943.51	1041.37	1139.68
5th	708.81	774.61	842.16	953.08	1031.86
1st	655.23	649.51	733.64	828.80	860.42
Range	846.05	1235.03	1141.25	1175.68	1921.11
Restricted range	382.70	412.54	470.70	510.72	577.92
Restricted range ratio	0.540	0.533	0.559	0.536	0.560
Mean deviation from median	84.41	92.11	101.02	113.52	125.58
Relative deviation from median	0.104	0.103	0.100	0.101	0.104
Mean	844.30	926.32	1033.23	1148.01	1249.39
Standard deviation	123.375	137.664	147.209	158.602	194.060
Coefficient of variation	0.146	0.149	0.142	0.138	0.155
Mean deviation from mean	87.82	96.52	103.12	115.42	130.46
Relative deviation from mean	0.104	0.104	0.100	0.101	0.104
Gini coefficient	0.074	0.073	0.073	0.072	0.076
Regression results					
Adj. wealth: Linear F	284.576	269.351	249.379	181.111	168.669
Elasticity	0.167	0.161	0.143	0.116	0.127
Quadratic F	142.019	134.641	124.506	97.001	86.102
Elasticity	0.168	0.155	0.141	0.144	0.143
Income: Linear F	108.542	148.184	156.721	147.258	56.059
Elasticity	0.149	0.154	0.152	0.142	0.168
Quadratic F	77.097	92.854	94.700	88.296	29.851
Elasticity	0.232	0.221	0.215	0.202	0.139
Adj. tax rate: Linear F	180.578	194.362	225.968	166.427	127.926
Elasticity	0.347	0.374	0.428	0.430	0.460
Quadratic F	95.547	109.458	125.723	118.615	103.627
Elasticity	0.331	0.343	0.385	0.360	0.401
Mean for adj. wealth decile					
1st	777.59	848.96	979.54	1083.92	1183.48
2nd	790.08	867.27	965.66	1097.06	1206.42
3rd	797.29	873.15	967.05	1092.72	1181.86
4th	803.94	879.48	990.09	1086.67	1189.08
5th	802.15	889.07	1014.01	1126.09	1220.72
6th	833.02	920.77	1040.44	1134.00	1227.02
7th	844.21	926.59	1002.36	1157.36	1243.87
8th	850.62	955.77	1061.85	1126.05	1233.11
9th	908.70	978.68	1058.66	1199.52	1270.55
10th	1035.44	1123.52	1252.60	1376.77	1537.75
Mean for income decile					
1st	823.09	887.46	992.08	1080.22	1204.58
2nd	784.82	862.37	957.94	1076.50	1194.49
3rd	784.34	854.66	965.05	1090.64	1225.02
4th	782.22	874.32	953.08	1055.33	1214.61
5th	817.02	885.16	992.92	1106.36	1220.49
6th	827.25	914.59	1030.13	1135.99	1212.94
7th	830.46	892.00	1008.44	1136.70	1208.32
8th	842.83	942.63	1052.02	1143.68	1224.70
9th	917.14	988.47	1119.08	1249.39	1292.47
10th	986.63	1082.28	1197.71	1326.54	1407.25
Mean for district type					
Below median ADM	821.43	901.61	1003.53	1119.80	1214.21
Above median ADM	867.18	951.04	1062.92	1176.23	1284.56
Below median % urban	802.32	877.18	980.49	1091.42	1185.84
Above median % urban	876.84	959.61	1073.20	1188.85	1295.13
Below median % white	855.72	936.08	1043.67	1157.10	1253.97
Above median % white	823.44	900.71	1010.02	1123.17	1227.00
Below median % poverty	861.66	943.86	1055.24	1171.07	1274.11
Above median % poverty	817.50	892.93	998.45	1109.21	1206.86
Correlation with					
ADM	0.134	0.088	0.135	0.127	0.133
Adj. wealth	0.594	0.584	0.569	0.508	0.492
Income	0.441	0.498	0.509	0.497	0.332
% Urban	0.458	0.471	0.481	0.475	0.457
% White	-0.324	-0.321	-0.315	-0.316	-0.287
% Poverty	-0.207	-0.220	-0.227	-0.235	-0.237
Adj. tax rate	0.507	0.521	0.550	0.492	0.442
Gini by adj. wealth distribution	0.221	0.229	0.235	0.243	0.243
Gini by income distribution	0.157	0.162	0.170	0.180	0.138

Table A-54  
DISTRIBUTION OF LOCAL + STATE + FEDERAL REVENUE PER FAMIL  
IN MICHIGAN (continued)

Measure	1971-72	1972-73	Weighted 1973-74	1974-75	1975-76
Percentile					
100th	1501.28	1685.84	1874.86	2004.48	1781.53
95th	1148.72	1258.06	1378.17	1513.15	1597.19
75th	947.69	1036.92	1131.57	1274.12	1394.25
50th (median)	891.47	932.59	1094.14	1208.09	1312.48
25th	801.99	864.32	989.09	1099.82	1195.79
5th	725.03	801.36	888.27	984.66	1059.11
1st	655.27	649.51	733.64	828.86	860.42
Range	846.05	1235.03	1141.25	1175.68	1923.11
Restricted range	423.69	456.76	490.56	530.49	638.08
Restricted range ratio	0.584	0.570	0.552	0.539	0.602
Mean deviation from median	98.33	108.51	110.78	119.34	140.97
Relative deviation from median	0.110	0.116	0.101	0.099	0.107
Mean	897.66	964.63	1094.52	1209.21	1326.27
Standard deviation	133.765	147.070	152.855	163.366	225.058
Coefficient of variation	0.149	0.152	0.140	0.135	0.170
Mean deviation from mean	98.44	111.29	110.78	119.34	141.28
Relative deviation from mean	0.110	0.115	0.101	0.099	0.107
Gini coefficient	0.079	0.079	0.074	0.072	0.080
Regression results					
Adj. wealth: Linear F	504.517	329.302	313.787	271.588	226.304
Elasticity	0.261	0.235	0.209	0.187	0.216
Quadratic F	252.696	164.591	158.382	142.449	114.723
Elasticity	0.270	0.241	0.222	0.211	0.231
Income: Linear F	284.157	291.461	322.662	297.065	31.868
Elasticity	0.262	0.256	0.224	0.207	0.112
Quadratic F	142.634	145.442	167.519	157.000	21.986
Elasticity	0.275	0.259	0.256	0.244	0.061
Adj. tax rate: Linear F	182.782	358.487	356.306	346.444	215.409
Elasticity	0.382	0.409	0.501	0.560	0.651
Quadratic F	91.251	196.259	177.846	173.120	107.581
Elasticity	0.383	0.416	0.502	0.565	0.648
Mean for adj. wealth decile					
1st	791.82	864.86	977.33	1092.39	1202.11
2nd	796.24	874.82	984.58	1105.23	1193.94
3rd	831.76	907.40	1032.40	1148.39	1275.62
4th	850.92	937.08	1077.67	1147.53	1351.58
5th	861.73	945.43	1040.87	1219.59	1317.50
6th	900.31	864.32	1120.45	1229.72	1314.25
7th	919.91	971.44	1138.01	1236.13	1281.67
8th	903.25	1034.34	1141.06	1209.78	1316.95
9th	1006.03	1070.67	1130.46	1257.76	1362.33
10th	1114.61	1175.92	1302.40	1445.53	1646.72
Mean for income decile					
1st	812.24	876.02	970.62	1081.64	1295.93
2nd	784.13	862.26	965.78	1079.93	1278.16
3rd	833.06	921.09	1031.03	1140.50	1313.94
4th	850.01	906.96	1027.43	1137.69	1352.63
5th	869.30	980.66	1083.43	1165.14	1315.89
6th	914.35	864.32	1099.85	1211.96	1245.48
7th	914.29	921.79	1114.65	1244.53	1241.64
8th	917.08	1034.55	1158.82	1293.27	1330.72
9th	1001.71	1072.52	1182.67	1306.91	1335.80
10th	1053.05	1154.35	1274.78	1400.86	1455.27
Mean for district type					
Below median ADM	842.72	920.12	1028.24	1140.12	1238.55
Above median ADM	952.60	1009.13	1160.80	1278.29	1413.98
Below median % urban	836.25	912.28	1011.14	1120.66	1216.96
Above median % urban	953.60	1006.62	1170.67	1291.83	1416.13
Below median % white	930.84	978.37	1132.61	1246.98	1359.86
Above median % white	859.00	940.53	1049.20	1165.50	1273.23
Below median % poverty	902.18	983.81	1095.64	1213.02	1330.07
Above median % poverty	887.66	935.09	1086.17	1199.46	1303.02
Correlation with					
ADM					
Adj. wealth	0.085	-0.224	0.112	0.096	0.047
Income	0.701	0.622	0.613	0.585	0.548
% Urban	0.622	0.627	0.647	0.631	0.256
% White	0.527	0.411	0.588	0.579	0.563
% Poverty	-0.207	0.065	-0.281	-0.253	-0.228
Adj. tax rate	-0.133	-0.263	-0.119	-0.140	-0.160
Gini by adj. wealth distribution	0.509	0.638	0.637	0.632	0.539
Gini by income distribution	0.160	0.169	0.170	0.175	0.179
	0.131	0.141	0.146	0.154	0.161

Table A.55  
DISTRIBUTION OF TOTAL REVENUE PER PUPIL  
IN MICHIGAN

Measure	1971-72	1972-73	Unweighted 1973-74	1974-75	1975-76
Percentile					
100th	1574.65	1884.54	1911.55	2046.69	2821.45
95th	1112.32	1224.50	1355.74	1509.62	1662.77
75th	912.07	1007.18	1117.53	1246.09	1344.81
50th (median)	842.49	914.96	1036.01	1154.93	1254.45
25th	787.11	866.47	965.06	1072.13	1179.63
5th	727.37	797.58	862.85	977.36	1072.68
1st	671.74	663.03	748.52	869.58	860.42
Range	902.91	1221.51	1163.03	1177.11	1961.03
Restricted range	384.95	426.92	492.89	532.26	590.09
Restricted range ratio	0.529	0.535	0.571	0.545	0.550
Mean deviation from median	86.11	94.61	104.64	117.94	127.82
Relative deviation from median	0.102	0.103	0.101	0.102	0.102
Mean	868.65	952.85	1061.31	1181.19	1291.58
Standard deviation	125.531	140.728	151.912	165.644	197.939
Coefficient of variation	0.145	0.148	0.143	0.140	0.153
Mean deviation from mean	89.53	99.30	107.17	120.38	132.75
Relative deviation from mean	0.103	0.104	0.101	0.102	0.103
Gini coefficient	0.073	0.073	0.073	0.073	0.074
Regression results					
Adj. wealth: Linear F	267.894	253.920	234.232	166.033	157.139
Elasticity	0.162	0.157	0.141	0.114	0.122
Quadratic F	133.698	126.775	116.896	89.390	80.342
Elasticity	0.161	0.154	0.140	0.143	0.138
Income: Linear F	97.394	129.256	141.583	129.596	32.333
Elasticity	0.142	0.147	0.148	0.138	0.129
Quadratic F	65.630	80.330	85.685	79.015	19.030
Elasticity	0.215	0.211	0.211	0.200	0.092
Adj. tax rate: Linear F	157.544	174.770	205.181	151.391	113.832
Elasticity	0.326	0.357	0.415	0.421	0.433
Quadratic F	83.226	99.153	114.316	108.066	91.297
Elasticity	0.311	0.327	0.373	0.351	0.377
Mean for adj. wealth decile					
1st	803.98	876.73	1007.27	1118.71	1225.33
2nd	819.29	893.71	994.32	1126.31	1249.28
3rd	817.80	897.71	994.26	1125.82	1224.23
4th	828.72	907.18	1016.85	1117.13	1237.06
5th	821.70	911.20	1040.91	1166.25	1261.92
6th	853.68	946.16	1065.31	1160.09	1260.44
7th	869.86	951.70	1029.02	1193.78	1290.97
8th	877.81	984.62	1091.71	1159.83	1272.60
9th	938.10	1012.61	1091.73	1231.05	1315.16
10th	1055.54	1146.86	1281.69	1412.97	1578.88
Mean for income decile					
1st	847.95	915.74	1020.84	1113.80	1265.08
2nd	812.63	890.42	984.17	1104.21	1247.06
3rd	812.59	882.59	994.81	1129.77	1277.95
4th	811.75	905.44	980.70	1081.14	1262.90
5th	841.64	905.66	1017.66	1132.98	1266.17
6th	848.15	942.22	1056.42	1163.22	1256.33
7th	850.91	914.36	1034.96	1171.77	1239.84
8th	860.03	964.12	1075.57	1173.40	1251.78
9th	944.65	1020.78	1158.80	1301.89	1321.95
10th	1004.98	1105.13	1223.22	1355.21	1428.88
Mean for district type					
Below median ADM	848.73	929.69	1032.16	1152.77	1259.23
Above median ADM	888.57	976.01	1090.45	1209.62	1323.94
Below median % urban	827.81	904.24	1007.48	1122.51	1228.49
Above median % urban	899.25	985.05	1101.95	1222.96	1335.10
Below median % white	881.22	964.07	1074.54	1194.17	1298.34
Above median % white	845.84	925.22	1034.90	1151.31	1265.24
Below median % poverty	878.52	962.87	1076.28	1196.13	1305.00
Above median % poverty	848.54	926.43	1033.15	1149.35	1258.59
Correlation with					
ADM	0.149	0.105	0.155	0.153	0.147
Adj. wealth	0.582	0.572	0.557	0.492	0.479
Income	0.422	0.473	0.490	0.473	0.258
% Urban	0.446	0.459	0.483	0.477	0.451
% White	-0.381	-0.378	-0.380	-0.398	-0.355
% Poverty	-0.137	-0.149	-0.161	-0.169	-0.155
Adj. tax rate	0.481	0.501	0.532	0.475	0.421
Gini by adj. wealth distribution	0.223	0.230	0.236	0.244	0.244
Gini by income distribution	0.160	0.165	0.172	0.181	0.144

Table A.55  
DISTRIBUTION OF TOTAL REVENUE PER PUPIL  
IN MICHIGAN (continued)

Measure	1971-72	1972-73	Weighted 1973-74	1974-75	1975-76
Percentile					
100th	1574.65	1884.54	1911.55	2046.69	2821.45
95th	1165.49	1283.60	1405.23	1541.32	1798.02
75th	989.85	1050.05	1209.72	1346.62	1450.62
50th (median)	911.38	954.12	1120.79	1245.58	1344.13
25th	823.23	900.28	1014.04	1122.20	1232.92
5th	740.59	819.97	908.59	1005.24	1096.70
1st	671.74	663.03	748.52	869.58	860.42
Range	902.91	1221.51	1163.03	1177.11	1961.03
Restricted range	424.90	463.63	496.64	536.08	701.32
Restricted range ratio	0.574	0.565	0.547	0.533	0.639
Mean deviation from median	108.19	106.79	125.32	139.49	157.12
Relative deviation from median	0.119	0.112	0.112	0.112	0.117
Mean	929.09	999.65	1133.64	1257.96	1378.53
Standard deviation	140.892	150.177	164.303	179.122	234.597
Coefficient of variation	0.152	0.150	0.145	0.142	0.170
Mean deviation from mean	108.72	111.43	125.80	139.90	158.38
Relative deviation from mean	0.117	0.111	0.111	0.111	0.115
Gini coefficient	0.082	0.078	0.078	0.078	0.082
Regression results					
Adj. wealth: Linear F	448.300	325.062	262.195	196.648	177.125
Elasticity	0.257	0.231	0.204	0.176	0.198
Quadratic F	227.621	164.263	133.949	104.032	89.629
Elasticity	0.277	0.248	0.224	0.202	0.212
Income: Linear F	224.809	270.805	259.319	230.534	6.956
Elasticity	0.251	0.249	0.222	0.206	0.056
Quadratic F	115.021	136.794	143.680	134.741	12.616
Elasticity	0.278	0.269	0.276	0.270	-0.013
Adj. tax rate: Linear F	129.339	254.585	271.383	272.629	186.418
Elasticity	0.340	0.361	0.478	0.547	0.620
Quadratic F	64.958	150.524	135.860	137.159	93.063
Elasticity	0.343	0.371	0.482	0.560	0.622
Mean for adj. wealth decile					
1st	816.13	890.91	1004.20	1124.40	1245.78
2nd	814.28	896.93	1009.84	1137.56	1231.16
3rd	851.25	931.92	1058.13	1190.89	1323.09
4th	872.09	962.24	1111.28	1180.08	1427.56
5th	892.54	973.40	1078.22	1322.32	1419.46
6th	944.49	941.69	1209.72	1305.90	1358.80
7th	983.36	1015.72	1186.52	1295.59	1347.15
8th	942.00	1078.83	1180.13	1247.14	1352.30
9th	1044.64	1108.55	1172.17	1300.53	1400.73
10th	1130.11	1196.30	1326.23	1475.20	1679.33
Mean for income decile					
1st	836.98	902.55	995.90	1111.99	1386.11
2nd	808.56	890.06	997.02	1110.32	1368.53
3rd	856.79	947.04	1059.34	1173.57	1381.84
4th	869.31	927.77	1051.24	1167.39	1416.89
5th	900.64	1002.23	1106.46	1198.45	1388.44
6th	989.85	941.69	1165.77	1286.15	1287.74
7th	950.50	967.12	1183.20	1361.26	1273.90
8th	953.18	1089.95	1223.38	1361.06	1365.62
9th	1035.54	1108.55	1229.94	1362.73	1359.37
10th	1074.42	1180.20	1304.33	1433.74	1472.78
Mean for district type					
Below median ADM	863.50	943.98	1053.97	1170.52	1277.57
Above median ADM	994.67	1055.32	1213.32	1345.40	1479.50
Below median % urban	858.30	937.03	1037.66	1150.84	1253.89
Above median % urban	996.85	1054.40	1225.66	1362.49	1486.36
Below median % white	979.36	1030.99	1192.79	1322.60	1435.56
Above median % white	875.79	960.44	1070.53	1190.73	1304.69
Below median % poverty	916.47	1001.47	1115.96	1238.12	1359.05
Above median % poverty	938.69	989.96	1147.36	1275.21	1381.19
Correlation with					
ADM	0.205	-0.106	0.225	0.237	0.136
Adj. wealth	0.680	0.620	0.579	0.523	0.502
Income	0.577	0.613	0.605	0.582	0.123
% Urban	0.556	0.466	0.619	0.620	0.592
% White	-0.354	-0.093	-0.424	-0.432	-0.363
% Poverty	0.005	-0.133	0.015	0.013	-0.025
Adj. tax rate	0.446	0.573	0.585	0.586	0.511
Gini by adj. wealth distribution	0.161	0.168	0.172	0.180	0.184
Gini by income distribution	0.134	0.139	0.146	0.153	0.172

Table A.56  
DISTRIBUTION OF LOCAL ADJUSTED TAX RATES  
IN MICHIGAN

Measure	1971-72	1972-73	Unweighted 1973-74	1974-75	1975-76
Percentile					
100th	18.95	18.45	18.83	18.85	18.90
95th	15.76	15.77	15.77	15.80	16.00
75th	12.84	12.83	12.88	12.07	13.50
50th (median)	11.13	11.19	11.36	11.98	12.48
25th	9.60	9.75	10.17	11.00	11.35
5th	7.75	7.92	8.50	9.75	10.00
1st	4.50	5.00	5.69	4.19	4.19
Range	14.45	13.45	13.14	14.64	14.71
Restricted range	8.01	7.84	7.27	6.05	6.00
Restricted range ratio	1.033	0.990	0.855	0.621	0.606
Mean deviation from median	1.93	1.87	1.64	1.44	1.37
Relative deviation from median	0.173	0.167	0.144	0.120	0.110
Mean	11.33	11.41	11.66	12.22	12.55
Standard deviation	2.416	2.367	2.136	1.932	1.871
Coefficient of variation	0.213	0.207	0.183	0.158	0.149
Mean deviation from mean	1.93	1.88	1.66	1.45	1.38
Relative deviation from mean	0.171	0.164	0.143	0.119	0.110
Gini coefficient	0.120	0.116	0.102	0.085	0.080
Regression results					
Adj. wealth: Linear F	0.238	0.009	0.750	18.454	26.245
Elasticity	-0.009	0.002	-0.012	-0.048	-0.054
Quadratic F	16.332	15.674	15.835	27.046	24.141
Elasticity	0.100	0.101	0.066	0.018	-0.008
Income: Linear F	69.843	89.726	102.762	106.789	184.273
Elasticity	0.189	0.199	0.180	0.149	0.284
Quadratic F	65.438	77.228	83.975	85.482	93.554
Elasticity	0.344	0.347	0.313	0.259	0.307
Mean for adj. wealth decile					
1st	10.28	10.29	11.19	11.93	12.11
2nd	10.79	10.85	10.87	11.76	12.39
3rd	11.25	11.21	11.09	11.92	12.42
4th	11.29	11.18	11.43	11.93	12.39
5th	11.49	11.65	12.16	12.29	12.74
6th	11.91	12.32	12.12	12.80	12.92
7th	12.11	11.96	11.92	12.98	13.05
8th	11.81	11.99	12.44	12.56	12.99
9th	11.38	11.48	11.91	12.85	12.87
10th	10.96	11.21	11.42	11.22	11.62
Mean for income decile					
1st	10.36	10.09	10.48	11.45	11.72
2nd	10.01	10.48	10.80	11.29	11.60
3rd	10.32	9.98	10.61	11.59	11.95
4th	10.41	11.02	10.74	11.40	11.99
5th	11.43	11.11	11.57	12.05	12.24
6th	11.31	11.57	11.84	12.36	12.54
7th	11.92	11.73	11.90	12.30	12.55
8th	12.08	12.40	12.56	12.80	13.02
9th	12.79	12.75	12.76	13.26	13.92
10th	13.91	14.15	14.36	14.78	14.92
Mean for district type					
Below median ADM	10.51	10.59	10.86	11.49	11.84
Above median ADM	12.14	12.23	12.46	12.96	13.26
Below median % urban	10.44	10.51	10.81	11.49	11.82
Above median % urban	12.47	12.54	12.72	13.16	13.46
Below median % white	11.59	11.64	11.86	12.43	12.69
Above median % white	11.32	11.41	11.66	12.22	12.59
Below median % poverty	12.36	12.51	12.61	13.13	13.44
Above median % poverty	10.55	10.55	10.91	11.53	11.85
Correlation with					
ADM	0.130	0.092	0.155	0.173	0.180
Adj. wealth	-0.021	0.004	-0.038	-0.185	-0.218
Income	0.367	0.408	0.432	0.438	0.537
% Urban	0.530	0.534	0.568	0.573	0.573
% White	-0.098	-0.100	-0.110	-0.139	-0.112
% Poverty	-0.432	-0.455	-0.432	-0.448	-0.469
Gini by adj. wealth distribution	0.274	0.275	0.273	0.280	0.280
Gini by income distribution	0.162	0.164	0.168	0.177	0.120



Table A.56  
DISTRIBUTION OF LOCAL ADJUSTED TAX RATES  
IN MICHIGAN (continued)

Measure	1971-72	1972-73	Weighted 1973-74	1974-75	1975-76
Percentile					
100th	18.95	18.45	18.83	18.83	18.96
95th	16.28	16.39	16.28	17.07	17.06
75th	14.00	14.45	14.33	14.75	14.95
50th (median)	12.27	12.27	12.27	12.54	13.25
25th	10.40	9.99	11.26	11.92	12.50
5th	8.40	7.76	9.25	10.25	10.68
1st	4.50	5.00	5.69	4.19	4.19
Range	14.45	13.45	13.14	14.64	14.71
Restricted range	7.88	8.64	7.03	6.82	6.38
Restricted range ratio	0.938	1.113	0.759	0.665	0.597
Mean deviation from median	2.02	2.41	1.86	1.60	1.52
Relative deviation from median	0.165	0.197	0.151	0.128	0.115
Mean	12.34	12.11	12.68	13.24	13.56
Standard deviation	2.451	2.884	2.252	2.019	1.903
Coefficient of variation	0.199	0.238	0.178	0.152	0.140
Mean deviation from mean	2.03	2.42	1.88	1.64	1.53
Relative deviation from mean	0.164	0.200	0.148	0.124	0.113
Gini coefficient	0.112	0.136	0.100	0.085	0.079
Regression results					
Adj. wealth: Linear F	3.556	5.709	10.020	4.495	4.883
Elasticity	0.041	0.061	0.059	0.033	0.031
Quadratic F	10.244	6.933	18.053	18.588	16.644
Elasticity	0.111	0.122	0.131	0.096	0.081
Income: Linear F	85.156	78.962	114.545	135.805	128.362
Elasticity	0.237	0.265	0.217	0.191	0.212
Quadratic F	43.637	39.520	62.249	76.179	68.518
Elasticity	0.266	0.277	0.270	0.247	0.251
Mean for adj. wealth decile					
1st	11.20	11.13	11.48	12.21	12.57
2nd	11.50	11.70	11.64	12.30	12.58
3rd	12.81	12.68	13.05	13.56	14.23
4th	13.35	13.35	13.52	13.34	13.28
5th	12.79	12.70	12.28	12.56	12.74
6th	11.80	7.76	11.26	12.86	13.83
7th	11.08	12.00	13.29	14.15	13.89
8th	13.21	13.70	13.94	13.96	14.33
9th	12.63	13.02	13.02	13.96	14.36
10th	13.01	13.02	13.28	13.51	13.78
Mean for income decile					
1st	10.87	10.62	11.00	11.77	12.49
2nd	10.84	10.69	10.95	11.76	12.40
3rd	12.15	12.48	12.17	12.60	12.97
4th	12.98	12.37	12.74	13.06	13.21
5th	12.14	13.62	13.78	13.81	13.71
6th	10.40	7.76	11.72	12.72	13.00
7th	12.62	10.77	11.96	12.60	13.20
8th	13.55	13.68	13.59	14.62	15.03
9th	13.78	14.09	14.30	14.45	14.23
10th	14.52	15.13	15.01	15.53	15.66
Mean for district type					
Below median ADM	11.57	11.60	11.82	12.38	12.71
Above median ADM	13.10	12.61	13.53	14.11	14.41
Below median % urban	11.68	11.66	11.76	12.30	12.63
Above median % urban	13.09	12.58	13.68	14.29	14.55
Below median % white	12.30	11.69	12.81	13.42	13.68
Above median % white	12.46	12.55	12.64	13.16	13.50
Below median % poverty	13.41	13.50	13.54	14.00	14.30
Above median % poverty	11.35	10.74	11.90	12.58	12.89
Correlation with					
ADM	-0.266	-0.542	-0.188	-0.107	-0.111
Adj. wealth	0.082	0.104	0.137	0.092	0.096
Income	0.399	0.387	0.451	0.482	0.469
% Urban	0.419	0.262	0.491	0.533	0.545
% White	0.222	0.443	0.117	0.052	0.062
% Poverty	-0.487	-0.548	-0.446	-0.438	-0.468
Gini by adj. wealth distribution	0.221	0.234	0.207	0.203	0.203
Gini by income distribution	0.158	0.181	0.163	0.165	0.141

TABLE 1. AVERAGE INCOME, WEALTH, AND TAXATION BY DISTRICT TYPE

Measure	1970-71	1971-72	1972-73	1973-74	1974-75	1975-76	1976-77	1977-78
Percentiles								
100th	1221.34	1471.75	1791.22	2046.25	2311.34	2571.75	2791.22	2996.25
95th	1145.14	1283.11	1561.65	1751.45	1971.14	2171.11	2341.65	2491.45
5th	78.75	811.65	1161.19	1341.69	1581.19	1791.65	1961.19	2121.65
50th (median)	625.79	666.61	890.46	1039.81	1151.12	1281.31	1411.19	1521.61
25th	561.05	585.19	807.60	921.34	1011.88	1101.31	1181.19	1261.19
5th	511.89	542.56	641.19	690.14	741.19	791.19	841.19	890.19
1st	496.02	517.28	571.19	578.47	591.19	611.19	626.19	678.47
Range	825.32	958.47	1213.66	1461.11	1621.15	1781.11	1931.66	1461.83
Restricted range	636.31	746.64	933.11	1067.11	1201.11	1341.11	1481.11	1441.17
Restricted range ratio	1.224	1.365	1.341	1.359	1.359	1.359	1.359	1.359
Mean deviation from median	140.04	161.85	214.18	237.06	241.01	261.45	271.47	281.50
Relative deviation from median	0.224	0.243	0.241	0.235	0.211	0.208	0.208	0.207
Mean	704.35	746.57	1001.47	1116.78	1201.11	1301.23	1411.19	1521.61
Standard deviation	196.539	228.358	295.528	320.221	341.105	361.421	371.851	381.161
Coefficient of variation	0.279	0.305	0.293	0.287	0.289	0.285	0.285	0.285
Mean deviation from mean	152.74	178.15	237.29	261.47	271.11	281.58	291.19	301.19
Relative deviation from mean	0.217	0.238	0.237	0.234	0.229	0.229	0.229	0.229
Gini coefficient	0.144	0.156	0.157	0.156	0.159	0.161	0.161	0.161
Regression results								
Adj. wealth: Linear F	64.079	77.706	31.798	10.676	163.455	198.655	55.397	12.177
Elasticity	0.202	0.227	0.150	0.090	0.148	0.167	0.106	0.057
Quadratic F	42.438	50.354	21.446	6.673	87.207	103.585	27.518	6.233
Elasticity	0.312	0.345	0.260	0.155	0.176	0.193	0.105	0.043
Income: Linear F	14.652	15.081	6.499	5.874	0.988	0.766	2.316	6.771
Elasticity	0.167	0.194	0.129	0.123	0.050	0.048	0.077	0.139
Quadratic F	8.650	10.602	3.202	3.481	0.583	1.177	1.322	3.967
Elasticity	0.168	0.184	0.129	0.124	0.068	0.104	0.052	0.089
Adj. tax rate: Linear F	17.469	13.681	11.548	0.000	1.973	0.277	5.406	0.000
Elasticity	-0.299	-0.297	1.136	0.000	-0.072	-0.029	0.368	0.000
Quadratic F	11.910	9.555	11.548	0.000	1.973	0.477	5.406	0.000
Elasticity	-0.450	-0.461	1.136	0.000	-0.143	-0.082	0.368	0.000
Mean for adj. wealth decile								
1st	529.56	558.89	817.29	942.77	520.20	543.35	752.55	896.26
2nd	543.96	560.59	777.89	848.00	539.61	561.65	716.73	754.52
3rd	558.66	591.86	769.26	956.10	525.64	551.91	756.27	869.88
4th	599.43	613.00	820.60	996.05	569.43	594.18	761.72	925.82
5th	711.77	790.40	1124.43	1313.49	558.75	581.69	799.54	894.99
6th	700.52	701.60	972.47	1208.22	558.22	582.05	832.15	944.05
7th	751.95	762.63	1034.24	1029.89	558.22	582.05	832.15	944.05
8th	832.64	903.26	1239.00	1456.34	579.37	601.65	853.91	985.19
9th	875.19	894.20	1146.11	1111.05	667.15	695.69	898.43	1004.63
10th	939.80	1109.23	1323.46	1305.93	726.67	788.22	962.56	967.38
Mean for income decile								
1st	568.27	599.03	782.51	854.62	561.13	604.66	787.86	834.31
2nd	564.09	610.23	864.79	923.65	549.58	571.68	724.72	844.85
3rd	592.06	620.50	814.68	943.88	601.22	607.70	823.80	868.10
4th	592.14	595.68	839.38	925.48	553.90	587.36	806.61	920.68
5th	622.39	677.11	926.87	1116.31	590.86	608.23	855.54	990.35
6th	626.93	620.97	853.74	951.46	578.03	605.36	770.67	885.99
7th	610.65	631.63	894.50	1026.88	558.22	597.09	809.04	922.96
8th	642.83	672.92	916.84	992.81	558.22	582.05	832.15	944.05
9th	627.68	685.11	838.21	986.59	557.65	582.05	832.15	944.05
10th	776.99	855.17	1036.44	1111.08	642.95	679.78	847.44	949.78
Mean for district type								
Below median ADM	824.43	885.49	1190.21	1319.46	609.93	644.05	836.59	935.98
Above median ADM	584.27	611.64	814.74	914.11	550.73	572.44	796.62	901.37
Below median % urban	627.94	660.14	882.83	985.39	589.34	619.84	811.06	894.44
Above median % urban	616.86	653.52	870.76	981.16	561.01	585.36	806.93	926.58
Below median % white	602.53	644.66	833.18	917.68	563.05	591.02	773.43	861.06
Above median % white	642.27	669.01	920.41	1048.87	587.30	614.17	844.56	959.96
Below median % poverty	644.52	682.66	883.46	988.72	582.61	612.67	822.85	934.94
Above median % poverty	600.28	631.01	870.13	977.83	567.74	592.52	795.14	886.09
Correlation with								
ADM	-0.213	-0.209	-0.216	-0.214	-0.226	-0.227	0.033	0.073
Adj. wealth	0.653	0.689	0.520	0.332	0.809	0.835	0.626	0.352
Income	0.426	0.431	0.299	0.286	0.121	0.107	0.184	0.305
% Urban	-0.079	-0.036	-0.084	-0.061	-0.145	-0.146	0.018	0.218
% White	0.119	0.079	0.428	0.638	0.047	-0.016	0.451	0.766
% Poverty	-0.319	-0.305	-0.203	-0.209	-0.110	-0.074	-0.132	-0.274
Adj. tax rate	-0.411	-0.370	0.344	0.000	-0.150	-0.057	0.243	0.000
Gini by adj. wealth distribution	0.327	0.327	0.383	0.425	0.245	0.247	0.303	0.330
Gini by income distribution	0.207	0.211	0.222	0.225	0.156	0.163	0.158	0.149

Table A.58  
DISTRIBUTION OF GENERAL + PL874 REVENUE PER PUPIL  
IN NEW MEXICO

Measure	Unweighted				Weighted			
	1972-73	1973-74	1974-75	1975-76	1972-73	1973-74	1974-75	1975-76
Percentile								
100th	1327.34	1475.75	1793.22	2046.29	1327.34	1475.75	1793.22	2046.29
95th	1166.69	1283.20	1594.28	1752.45	864.89	854.40	1016.51	1084.28
75th	854.31	904.11	1198.51	1346.12	683.93	691.78	866.14	988.51
50th (median)	694.94	716.94	928.64	1037.01	609.32	611.07	866.14	974.52
25th	594.99	606.59	856.08	972.46	584.37	597.44	805.68	936.04
5th	556.34	566.52	791.59	885.71	564.01	566.85	789.68	874.04
1st	510.54	538.73	756.26	845.45	510.54	538.73	756.26	845.45
Range	816.80	937.02	1036.96	1200.85	816.80	937.02	1036.96	1200.85
Restricted range	610.35	716.68	802.69	866.74	300.88	287.55	226.82	210.23
Restricted range ratio	1.097	1.265	1.014	0.979	0.533	0.507	0.287	0.241
Mean deviation from median	150.18	166.48	196.85	203.67	64.66	66.01	53.04	46.68
Relative deviation from median	0.216	0.232	0.212	0.196	0.106	0.108	0.061	0.048
Mean	754.52	786.47	1046.67	1167.76	650.33	659.07	872.77	982.63
Standard deviation	195.144	222.413	269.099	280.079	109.980	116.285	105.198	99.962
Coefficient of variation	0.259	0.283	0.257	0.240	0.169	0.176	0.121	0.102
Mean deviation from mean	157.48	176.78	222.42	233.64	77.15	81.40	56.42	50.29
Relative deviation from mean	0.209	0.225	0.213	0.200	0.119	0.124	0.065	0.051
Gini coefficient	0.139	0.150	0.134	0.125	0.078	0.079	0.049	0.040
Regression results								
Adj. wealth: Linear F	54.190	75.755	36.842	12.553	38.456	71.127	88.774	29.106
Elasticity	0.178	0.209	0.137	0.081	0.123	0.152	0.092	0.053
Quadratic F	36.762	50.063	26.157	8.373	19.705	36.412	44.467	14.557
Elasticity	0.283	0.322	0.245	0.147	0.147	0.179	0.102	0.046
Income: Linear F	1.602	5.993	2.813	2.252	3.289	1.897	0.612	0.000
Elasticity	0.074	0.138	0.074	0.057	-0.124	-0.094	-0.032	-0.001
Quadratic F	5.358	9.399	2.730	1.215	2.636	3.192	0.744	0.001
Elasticity	0.076	0.122	0.073	0.057	-0.044	0.017	0.001	0.000
Adj. tax rate: Linear F	19.121	15.949	10.307	0.000	4.147	2.188	2.391	0.000
Elasticity	-0.287	-0.294	0.942	0.000	-0.126	-0.091	0.201	0.000
Quadratic F	15.857	11.765	10.307	0.000	7.026	2.708	2.391	0.000
Elasticity	-0.476	-0.468	0.942	0.000	-0.306	-0.217	0.201	0.000
Mean for adj. wealth decile								
1st	602.35	618.78	871.67	1002.87	617.51	626.54	835.82	989.40
2nd	646.85	639.49	857.04	978.27	718.82	693.26	853.80	941.05
3rd	641.00	652.75	827.68	983.81	606.53	605.17	808.77	934.59
4th	615.81	626.99	871.66	1058.33	613.13	630.19	815.48	950.16
5th	734.62	801.19	1127.85	1319.04	592.98	595.32	823.43	936.98
6th	709.06	710.35	1001.56	1218.93	609.32	611.07	866.14	974.52
7th	758.46	770.66	1044.36	1056.33	609.32	611.07	866.14	974.52
8th	889.89	951.49	1293.36	1479.70	614.25	625.88	878.96	1009.07
9th	961.37	953.06	1231.22	1257.70	681.32	706.81	916.27	1021.55
10th	985.78	1139.91	1340.34	1322.58	840.17	885.34	1062.84	1094.43
Mean for income decile								
1st	685.63	685.95	899.60	980.29	709.67	721.55	916.32	993.41
2nd	699.99	702.40	963.69	1051.69	719.62	701.27	853.12	963.44
3rd	642.23	655.99	865.60	1005.06	636.43	647.27	863.12	971.78
4th	719.02	641.20	943.02	1056.86	591.86	608.07	836.79	950.23
5th	634.49	736.11	934.86	1127.07	661.67	657.34	883.22	1007.60
6th	651.52	653.47	881.49	987.59	637.99	640.15	842.08	957.85
7th	625.45	653.06	921.00	1036.34	609.32	623.43	839.74	966.19
8th	693.27	712.52	941.47	1014.71	609.32	611.07	866.14	974.52
9th	667.45	704.19	886.50	1051.23	599.27	611.07	866.14	974.52
10th	841.79	906.43	1095.96	1171.74	686.05	719.81	892.62	994.30
Mean for district type								
Below median ADM	861.38	911.39	1222.68	1356.44	678.54	696.72	897.05	1004.88
Above median ADM	647.66	661.55	870.67	979.07	622.13	621.41	848.48	960.37
Below median % urban	712.49	724.97	959.39	1074.57	674.00	685.64	882.38	982.56
Above median % urban	659.67	685.30	907.25	1021.94	618.24	622.56	849.48	968.21
Below median % white	713.33	727.62	929.49	1030.88	672.11	672.67	860.63	965.44
Above median % white	658.84	682.64	937.14	1065.63	620.13	635.54	871.22	985.32
Below median % poverty	692.25	722.02	928.75	1036.83	641.02	651.14	866.89	978.14
Above median % poverty	679.92	688.25	937.89	1059.68	651.22	657.06	864.97	972.63
Correlation with								
ADM	-0.180	-0.195	-0.222	-0.228	-0.264	-0.296	-0.087	-0.096
Adj. wealth	0.622	0.684	0.548	0.357	0.556	0.673	0.713	0.503
Income	0.154	0.289	0.202	0.182	-0.218	-0.167	-0.096	-0.003
% Urban	-0.194	-0.130	-0.212	-0.234	-0.360	-0.343	-0.277	-0.125
% White	-0.610	-0.427	-0.063	0.119	-0.788	-0.678	-0.246	0.033
% Poverty	-0.067	-0.153	-0.085	-0.066	0.256	0.231	0.190	0.134
Adj. tax rate	-0.426	-0.396	0.327	0.000	-0.214	-0.158	0.164	0.000
Gini by adj. wealth distribution	0.335	0.333	0.383	0.422	0.267	0.262	0.309	0.331
Gini by income distribution	0.230	0.224	0.228	0.231	0.176	0.180	0.165	0.161

Table A.59  
DISTRIBUTION OF LOCAL + STATE REVENUE PER PEOPLE  
IN NEW MEXICO

Measure	Unweighted				Weighted			
Percentile	1972-73	1973-74	1974-75	1975-76	1972-73	1973-74	1974-75	1975-76
100th	1647.02	3496.93	2750.24	2477.22	1647.02	3496.93	2750.24	2477.22
95th	1394.84	1749.06	2051.69	2055.63	885.25	1058.92	1084.00	1290.44
75th	977.51	1179.05	1391.89	1529.60	737.65	817.62	915.05	1018.02
50th (median)	828.04	899.55	1016.37	1133.36	668.81	737.25	876.32	999.46
25th	729.58	798.62	895.66	1015.69	661.51	737.25	817.58	945.25
5th	639.66	671.70	746.08	800.77	636.69	654.16	709.89	719.93
1st	563.75	636.26	633.51	676.32	563.75	636.26	633.51	676.32
Range	1083.27	2860.67	2116.74	1800.90	1083.27	2860.67	2116.74	1800.90
Restricted range	755.18	1077.36	1305.61	1254.86	248.54	404.76	374.10	578.51
Restricted range ratio	1.181	1.604	1.750	1.567	0.390	0.527	0.527	0.804
Mean deviation from median	173.71	245.56	308.72	306.21	57.12	72.67	85.53	93.77
Relative deviation from median	0.210	0.273	0.304	0.270	0.085	0.099	0.098	0.094
Mean	897.93	1029.86	1185.76	1287.42	711.37	788.79	891.83	1005.60
Standard deviation	240.286	398.726	423.458	396.683	98.841	151.422	170.828	173.702
Coefficient of variation	0.268	0.387	0.357	0.308	0.139	0.192	0.192	0.173
Mean deviation from mean	183.03	271.61	338.49	326.06	64.68	84.12	91.83	95.93
Relative deviation from mean	0.204	0.264	0.285	0.253	0.091	0.107	0.103	0.095
Gini coefficient	0.141	0.176	0.187	0.168	0.060	0.073	0.079	0.078
Regression results								
Adj. wealth: Linear F	32.718	13.748	13.281	7.476	42.131	15.102	24.811	10.563
Elasticity	0.156	0.155	0.128	0.082	0.105	0.095	0.097	0.059
Quadratic F	20.991	9.032	9.840	5.624	20.824	7.735	12.306	5.255
Elasticity	0.248	0.267	0.250	0.167	0.106	0.075	0.104	0.053
Income: Linear F	0.844	0.003	0.646	0.451	5.352	5.470	0.252	0.131
Elasticity	0.038	-0.004	0.051	0.039	-0.106	-0.147	-0.032	0.022
Quadratic F	1.792	0.503	0.321	0.222	2.695	2.860	0.160	0.096
Elasticity	0.039	-0.009	0.051	0.039	-0.093	-0.119	-0.047	0.008
Adj. tax rate: Linear F	11.507	4.594	11.926	0.000	0.444	3.587	3.132	0.000
Elasticity	-0.240	-0.229	1.395	0.000	-0.035	0.126	0.365	0.000
Quadratic F	9.231	3.875	11.926	0.000	2.827	3.568	3.132	0.000
Elasticity	-0.399	-0.404	1.395	0.000	-0.149	-0.016	0.365	0.000
Mean for adj. wealth decile								
1st	743.73	896.94	1062.68	1057.07	728.62	835.28	878.68	993.52
2nd	757.81	761.53	898.24	940.22	699.71	746.42	802.47	856.85
3rd	686.00	773.91	852.71	1133.25	644.62	721.36	826.61	958.99
4th	770.67	968.84	931.50	1223.56	687.22	747.73	826.13	1026.41
5th	962.00	1106.72	1389.31	1502.70	678.44	802.11	846.50	972.13
6th	857.84	957.27	1190.53	1372.04	661.51	737.25	876.32	999.48
7th	946.02	997.95	1166.83	1148.53	661.51	737.25	876.32	999.48
8th	1044.24	1179.40	1539.04	1712.10	720.58	783.80	935.10	1066.43
9th	1092.32	1315.39	1331.28	1292.65	780.45	850.61	986.83	1092.10
10th	1118.64	1340.67	1495.45	1492.04	851.06	926.05	1063.36	1090.56
Mean for income decile								
1st	808.88	888.95	947.37	1079.29	742.15	857.66	896.09	1010.20
2nd	765.84	983.76	989.44	1165.67	717.12	813.10	864.16	931.64
3rd	758.06	915.02	1066.21	1035.80	748.11	820.19	912.42	994.09
4th	797.39	814.38	965.74	1019.47	686.15	759.45	867.97	997.63
5th	793.67	921.20	1024.56	1253.19	739.68	762.82	930.80	1067.51
6th	792.20	845.75	977.07	1152.28	687.17	770.14	823.36	953.48
7th	769.39	865.46	1014.66	1139.65	661.51	753.45	859.86	978.83
8th	759.66	823.93	1036.41	1082.53	661.51	737.25	876.32	999.48
9th	779.99	848.88	949.03	1059.92	670.81	737.25	876.32	999.48
10th	904.56	986.41	1123.35	1233.57	728.52	787.13	897.66	1015.70
Mean for district type								
Below median ADM	1054.44	1244.14	1434.01	1543.66	759.29	847.21	937.44	1047.77
Above median ADM	741.41	815.58	937.50	1031.17	663.45	730.36	846.22	963.42
Below median % urban	836.32	944.00	1064.82	1167.60	735.89	823.06	907.64	1004.18
Above median % urban	749.61	834.74	953.95	1076.68	672.65	736.63	853.35	985.43
Below median % white	758.48	828.92	946.77	1032.82	686.47	755.62	838.40	940.06
Above median % white	827.45	949.82	1071.99	1211.45	722.08	804.07	922.59	1049.55
Below median % poverty	779.88	842.69	972.50	1082.12	685.94	752.70	871.12	995.77
Above median % poverty	806.05	936.06	1046.27	1162.16	722.61	806.99	889.88	993.83
Correlation with								
ADM	-0.262	-0.206	-0.239	-0.246	-0.389	-0.273	-0.114	-0.074
Adj. wealth	0.525	0.371	0.366	0.283	0.573	0.386	0.473	0.331
Income	0.112	-0.007	0.098	0.082	-0.274	-0.277	-0.062	0.044
% Urban	-0.378	-0.297	-0.285	-0.222	-0.470	-0.404	-0.254	-0.029
% White	0.161	0.274	0.344	0.436	0.106	0.183	0.306	0.562
% Poverty	0.117	0.052	-0.012	0.057	0.343	0.279	0.099	0.033
Adj. tax rate	-0.344	-0.225	0.349	0.000	-0.072	0.200	0.187	0.000
Gini by adj. wealth distribution	0.350	0.377	0.402	0.430	0.268	0.282	0.310	0.332
Gini by income distribution	0.231	0.254	0.248	0.247	0.173	0.184	0.176	0.166

Table A.6  
DISTRIBUTION OF LOCAL + STATE + PLSTW REVENUE PER PUPIL  
IN NEW MEXICO

Measure	Unweighted				Weighted			
	1972-73	1973-74	1974-75	1975-76	1972-73	1973-74	1974-75	1975-76
Percentile								
100th	1647.02	3496.93	2750.24	2477.22	1647.02	3496.93	2750.24	2477.22
95th	1395.22	1749.06	2051.69	2051.63	984.17	1100.77	1186.48	1301.63
75th	1076.89	1181.35	1431.08	1540.28	794.59	861.35	945.58	1076.98
50th (median)	870.52	956.23	1079.76	1167.66	712.78	782.38	910.30	1029.95
25th	777.47	823.19	945.39	1073.69	712.62	766.27	861.09	1012.00
5th	707.66	768.41	845.73	959.59	697.63	735.15	830.10	948.48
1st	678.36	735.15	828.12	922.37	678.36	735.15	828.12	922.37
Range	968.66	2761.78	1922.12	1554.85	968.66	2761.78	1922.12	1554.85
Restricted range	687.57	980.65	1205.96	1096.04	286.48	365.61	356.38	353.12
Restricted range ratio	0.972	1.276	1.426	1.142	0.411	0.497	0.429	0.372
Mean deviation from median	174.49	233.36	287.70	278.16	71.99	75.78	74.32	66.67
Relative deviation from median	0.200	0.244	0.266	0.239	0.101	0.097	0.082	0.065
Mean	948.10	1067.76	1229.95	1338.39	781.38	839.61	947.99	1069.55
Standard deviation	232.804	382.431	398.665	364.338	119.196	150.775	159.658	146.518
Coefficient of variation	0.246	0.358	0.324	0.272	0.153	0.180	0.168	0.137
Mean deviation from mean	184.95	253.79	316.64	302.72	82.82	92.14	88.40	81.20
Relative deviation from mean	0.195	0.238	0.257	0.226	0.106	0.110	0.093	0.076
Gini coefficient	0.130	0.160	0.168	0.145	0.068	0.070	0.064	0.052
Regression results								
Adj. wealth: Linear F	30.450	13.958	13.900	7.909	20.684	14.862	28.388	15.302
Elasticity	0.139	0.145	0.118	0.075	0.088	0.089	0.090	0.055
Quadratic F	20.254	9.385	10.731	6.440	10.222	7.572	14.141	7.562
Elasticity	0.228	0.253	0.237	0.160	0.088	0.071	0.099	0.055
Income: Linear F	0.361	0.447	0.017	0.104	20.346	20.195	5.363	5.231
Elasticity	-0.029	-0.038	0.008	-0.016	-0.236	-0.247	-0.126	-0.100
Quadratic F	5.316	2.418	0.671	0.770	11.431	11.844	3.000	2.939
Elasticity	-0.027	-0.048	0.006	-0.017	-0.171	-0.173	-0.089	-0.068
Adj. tax rate: Linear F	13.234	5.426	10.978	0.000	2.142	1.151	1.328	0.000
Elasticity	-0.234	-0.230	1.221	0.000	-0.082	0.068	0.211	0.000
Quadratic F	12.930	4.758	10.978	0.000	8.804	4.376	1.328	0.000
Elasticity	-0.422	-0.411	1.221	0.000	-0.284	-0.127	0.211	0.000
Mean for adj. wealth decile								
1st	816.52	956.84	1117.06	1117.17	825.93	918.47	961.95	1086.66
2nd	860.70	840.42	977.39	1070.49	878.91	878.02	939.55	1043.38
3rd	768.34	834.80	911.13	1160.96	725.51	774.62	879.11	1023.71
4th	787.05	982.83	982.56	1285.83	730.91	783.74	879.89	1050.75
5th	984.85	1117.51	1392.73	1508.25	712.66	815.74	870.38	1014.12
6th	866.38	966.02	1219.62	1382.76	712.62	766.27	910.30	1029.95
7th	952.53	1005.98	1176.95	1174.97	712.62	766.27	910.30	1029.95
8th	1101.50	1227.64	1593.40	1735.47	755.46	808.03	960.14	1090.31
9th	1178.50	1374.25	1416.38	1439.30	794.61	861.72	1004.67	1109.03
10th	1164.61	1371.35	1512.33	1508.68	964.56	1023.18	1163.64	1217.61
Mean for income decile								
1st	926.25	975.87	1064.46	1204.96	890.70	974.54	1024.55	1169.30
2nd	901.73	1075.93	1088.35	1293.71	887.16	942.69	992.56	1050.23
3rd	808.24	950.51	1117.13	1096.97	783.32	859.76	951.74	1097.77
4th	924.28	859.90	1069.38	1150.85	724.11	780.15	898.15	1027.18
5th	805.77	980.20	1032.55	1263.95	810.49	811.94	958.48	1084.76
6th	816.78	878.26	1004.82	1188.40	747.13	804.93	894.77	1025.34
7th	784.18	886.88	1041.17	1149.12	712.62	779.79	890.56	1022.06
8th	810.11	863.53	1061.05	1104.43	712.62	766.27	910.30	1029.95
9th	819.76	867.95	997.32	1124.56	712.43	766.27	910.30	1029.95
10th	969.36	1037.66	1182.87	1294.22	771.61	827.16	942.84	1060.22
Mean for district type								
Below median ADM	1091.40	1270.04	1466.47	1580.65	827.90	899.88	997.91	1116.68
Above median ADM	804.80	865.49	993.44	1096.13	734.86	779.33	898.08	1022.42
Below median % urban	920.87	1008.83	1141.38	1256.78	820.56	888.86	978.96	1092.30
Above median % urban	792.43	866.51	990.44	1117.46	729.88	773.84	895.89	1027.06
Below median % white	869.28	911.88	1043.09	1146.02	795.53	837.27	925.61	1044.44
Above median % white	844.02	963.46	1088.73	1228.21	754.91	825.43	949.24	1074.91
Below median % poverty	827.61	882.04	1017.78	1130.23	744.35	791.16	915.15	1038.97
Above median % poverty	885.68	993.30	1114.03	1244.01	806.09	871.54	959.70	1080.38
Correlation with								
ADM	-0.242	-0.203	-0.243	-0.255	-0.413	-0.360	-0.205	-0.226
Adj. wealth	0.511	0.374	0.373	0.290	0.440	0.384	0.498	0.389
Income	-0.074	-0.082	0.016	-0.040	-0.485	-0.484	-0.274	-0.271
% Urban	-0.436	-0.387	-0.382	-0.356	-0.599	-0.599	-0.469	-0.348
% White	-0.542	-0.097	0.007	-0.001	-0.720	-0.398	-0.187	-0.095
% Poverty	0.266	0.147	0.083	0.206	0.565	0.520	0.335	0.417
Adj. tax rate	-0.365	-0.244	0.336	0.000	-0.156	0.115	0.123	0.000
Gini by adj. wealth distribution	0.354	0.377	0.401	0.428	0.281	0.289	0.315	0.334
Gini by income distribution	0.246	0.258	0.251	0.252	0.188	0.194	0.181	0.177

Table A.61  
DISTRIBUTION OF TOTAL REVENUE PER PUPIL  
IN NEW MEXICO

Measure	Unweighted				Weighted			
Percentile	1972-73	1973-74	1974-75	1975-76	1972-73	1973-74	1974-75	1975-76
100th	1810.60	3605.16	2811.90	2763.79	1810.60	3605.16	2811.90	2763.79
95th	1706.01	1830.42	2201.16	2309.66	1246.67	1317.02	1385.27	1601.20
75th	1190.09	1376.78	1568.49	1745.88	893.99	986.06	1100.93	1226.28
50th (median)	998.40	1089.15	1221.55	1430.92	781.20	834.35	949.66	1088.94
25th	845.51	930.66	1050.41	1195.11	757.80	802.83	949.66	1088.94
5th	761.69	810.89	903.99	1038.41	754.61	793.21	882.32	1023.79
1st	723.39	789.88	860.46	964.11	723.39	789.88	860.46	964.11
Range	1087.21	2815.28	1951.44	1799.68	1087.21	2815.28	1951.44	1799.68
Restricted range	944.32	1019.53	1297.17	1271.25	492.06	523.81	502.95	577.41
Restricted range ratio	1.240	1.257	1.435	1.224	0.652	0.660	0.570	0.564
Mean deviation from median	205.77	257.24	320.81	322.69	102.36	123.92	109.96	112.63
Relative deviation from median	0.206	0.236	0.263	0.226	0.131	0.149	0.116	0.103
Mean	1057.27	1188.66	1363.60	1511.14	861.77	929.38	1034.56	1183.98
Standard deviation	264.377	390.791	419.495	405.908	162.875	199.622	196.726	199.794
Coefficient of variation	0.250	0.329	0.308	0.269	0.189	0.215	0.190	0.169
Mean deviation from mean	211.06	266.49	333.52	330.10	118.17	147.71	131.78	134.18
Relative deviation from mean	0.200	0.224	0.245	0.218	0.137	0.159	0.127	0.113
Gini coefficient	0.135	0.156	0.165	0.148	0.088	0.098	0.083	0.074
Regression results								
Adj. wealth: Linear F	17.356	9.024	9.385	3.275	7.421	5.808	13.804	4.170
Elasticity	0.114	0.109	0.094	0.049	0.070	0.069	0.076	0.038
Quadratic F	12.109	6.100	8.180	3.057	3.713	3.142	6.836	2.217
Elasticity	0.198	0.195	0.208	0.116	0.061	0.044	0.080	0.024
Income: Linear F	1.072	2.536	0.652	1.844	15.973	21.062	10.282	8.664
Elasticity	-0.058	-0.095	-0.048	-0.074	-0.280	-0.331	-0.206	-0.170
Quadratic F	10.189	7.819	3.636	4.134	16.250	20.737	11.609	10.053
Elasticity	-0.054	-0.112	-0.050	-0.076	-0.080	-0.124	-0.036	-0.017
Adj. tax rate: Linear F	8.731	3.195	10.016	0.000	1.033	1.267	0.123	0.000
Elasticity	-0.198	-0.164	1.113	0.000	-0.071	0.085	0.073	0.000
Quadratic F	10.506	4.545	10.016	0.000	8.608	5.083	0.123	0.000
Elasticity	-0.396	-0.366	1.113	0.000	-0.329	-0.165	0.073	0.000
Mean for adj. wealth decile								
1st	960.31	1172.42	1340.56	1427.26	948.71	1057.57	1112.97	1286.41
2nd	972.47	977.31	1101.68	1228.86	999.37	1051.69	1057.60	1221.84
3rd	898.38	1029.55	1019.23	1294.13	806.30	852.57	969.67	1114.10
4th	904.94	1066.38	1144.54	1508.61	863.64	933.85	1030.52	1170.67
5th	1075.63	1208.62	1494.45	1682.74	767.55	870.02	917.40	1184.72
6th	936.38	1048.42	1331.44	1514.00	757.80	802.83	949.66	1088.94
7th	1040.36	1093.43	1259.14	1284.16	757.80	802.83	949.66	1088.94
8th	1222.30	1328.80	1750.56	1951.72	811.85	856.28	1016.36	1168.13
9th	1291.11	1494.40	1601.62	1609.61	844.74	938.14	1074.91	1202.80
10th	1270.81	1467.27	1592.79	1610.28	1059.89	1128.05	1266.87	1313.31
Mean for income decile								
1st	1055.85	1165.81	1267.14	1482.66	1027.52	1149.15	1201.45	1360.66
2nd	1064.39	1279.70	1300.72	1505.49	1027.47	1122.61	1143.52	1247.29
3rd	923.62	1070.93	1252.86	1325.55	868.29	969.07	1064.15	1249.27
4th	1053.98	1004.44	1260.74	1358.78	786.25	834.17	952.48	1100.25
5th	895.93	1159.41	1159.54	1454.52	861.90	868.49	1017.83	1186.58
6th	910.22	983.96	1109.32	1304.97	803.36	880.37	943.43	1104.71
7th	844.21	942.72	1096.97	1220.70	757.80	818.02	934.38	1067.18
8th	863.72	952.36	1117.03	1231.52	757.80	802.83	949.66	1088.94
9th	906.80	918.85	1091.72	1177.76	763.63	802.83	949.66	1088.94
10th	1112.51	1188.22	1342.19	1517.89	897.45	963.38	1079.74	1241.14
Mean for district type								
Below median ADM	1214.09	1388.34	1611.76	1770.94	925.27	1018.16	1115.56	1263.85
Above median ADM	900.45	988.98	1115.44	1251.33	798.26	840.61	953.56	1104.12
Below median % urban	1049.86	1172.69	1318.87	1478.77	917.89	1006.72	1091.13	1232.48
Above median % urban	876.39	960.59	1080.78	1237.19	792.40	835.46	956.13	1114.51
Below median % white	976.14	1044.33	1175.53	1300.24	874.05	927.56	1008.24	1148.97
Above median % white	950.10	1088.95	1224.12	1415.73	836.25	914.63	1039.02	1198.02
Below median % poverty	913.29	971.63	1114.13	1244.02	803.60	849.49	973.00	1120.41
Above median % poverty	1012.95	1161.65	1285.52	1471.95	906.69	992.70	1074.26	1226.58
Correlation with								
ADM	-0.250	-0.226	-0.270	-0.279	-0.451	-0.455	-0.335	-0.359
Adj. wealth	0.410	0.308	0.314	0.192	0.282	0.252	0.372	0.215
Income	-0.126	-0.192	-0.099	-0.165	-0.441	-0.492	-0.367	-0.341
% Urban	-0.444	-0.447	-0.479	-0.446	-0.570	-0.608	-0.567	-0.451
% White	-0.587	-0.262	-0.148	-0.071	-0.695	-0.490	-0.302	-0.173
% Poverty	0.344	0.343	0.275	0.411	0.561	0.602	0.497	0.535
Adj. tax rate	-0.304	-0.189	0.323	0.000	-0.109	0.121	0.038	0.000
Gini by adj. wealth distribution	0.368	0.392	0.412	0.443	0.296	0.306	0.329	0.351
Gini by income distribution	0.256	0.275	0.265	0.268	0.200	0.213	0.195	0.192

Table A.62  
DISTRIBUTION OF INSTRUCTIONAL EXPENDITURES PER PUPIL  
IN NEW MEXICO

Measure	Unweighted				Weighted			
	1971-72	1973-74	1974-75	1975-76	1972-73	1973-74	1974-75	1975-76
Percentile								
100th	952.42	1014.75	1222.59	1114.62	952.42	1014.75	1222.59	1114.62
95th	806.82	897.86	994.49	1064.09	603.67	614.68	676.85	781.89
75th	621.53	684.68	745.68	867.38	521.85	550.28	616.07	722.81
50th (median)	539.85	573.04	634.01	728.00	491.62	528.01	613.13	709.36
25th	498.45	537.57	598.51	687.98	485.99	528.01	589.27	664.01
5th	465.15	504.31	549.75	639.67	466.74	499.26	551.54	629.36
1st	416.56	457.52	522.25	618.50	416.56	457.52	522.25	618.50
Range	535.86	557.22	700.35	496.12	535.86	557.22	700.35	496.12
Restricted range	340.68	393.54	444.74	424.43	136.94	115.43	125.32	152.53
Restricted range ratio	0.732	0.780	0.809	0.664	0.293	0.231	0.227	0.242
Mean deviation from median	80.35	88.59	98.05	97.38	31.42	29.19	28.42	36.25
Relative deviation from median	0.149	0.155	0.155	0.134	0.064	0.055	0.046	0.051
Mean	574.58	623.41	690.48	783.16	512.19	550.55	614.17	708.89
Standard deviation	112.000	125.253	139.494	129.960	58.246	60.982	58.313	65.799
Coefficient of variation	0.195	0.201	0.202	0.166	0.114	0.111	0.095	0.093
Mean deviation from mean	86.24	99.18	108.41	107.52	36.87	34.99	28.92	36.36
Relative deviation from mean	0.150	0.159	0.157	0.137	0.072	0.064	0.047	0.051
Gini coefficient	0.101	0.103	0.103	0.089	0.048	0.043	0.038	0.041
Regression results								
Adj. wealth: Linear F	29.321	25.437	11.471	8.899	16.093	13.378	11.174	10.969
Elasticity	0.109	0.104	0.068	0.048	0.059	0.052	0.035	0.032
Quadratic F	19.137	17.745	13.324	7.061	7.955	6.685	5.967	5.934
Elasticity	0.177	0.181	0.171	0.101	0.058	0.046	0.047	0.045
Income: Linear F	9.959	7.497	5.750	10.339	0.912	0.266	3.336	6.620
Elasticity	0.109	0.094	0.070	0.100	0.043	0.022	0.060	0.085
Quadratic F	13.969	22.289	8.422	9.506	8.227	15.431	22.366	16.648
Elasticity	0.111	0.079	0.069	0.099	0.180	0.177	0.198	0.209
Adj. tax rate: Linear F	16.013	14.102	6.098	0.000	3.839	2.372	0.018	0.000
Elasticity	-0.201	-0.198	0.582	0.000	-0.081	-0.059	0.014	0.000
Quadratic F	12.198	10.593	6.098	0.000	5.528	2.979	0.018	0.000
Elasticity	-0.323	-0.320	0.582	0.000	-0.187	-0.143	0.014	0.000
Mean for adj. wealth decile								
1st	502.27	543.99	613.23	710.62	502.87	544.00	606.29	699.53
2nd	501.25	561.09	595.38	678.88	526.17	570.75	597.70	660.25
3rd	537.73	571.21	591.83	697.52	503.64	533.61	579.29	668.93
4th	510.31	532.69	628.66	775.96	532.08	585.18	635.36	694.15
5th	600.68	656.56	732.65	854.82	490.93	508.83	583.51	738.35
6th	519.37	591.44	684.24	815.22	485.99	528.01	613.13	709.36
7th	564.32	603.14	682.18	747.60	485.99	528.01	613.13	709.36
8th	647.14	707.23	807.65	901.94	495.29	540.75	617.53	719.89
9th	683.31	701.47	801.75	791.37	521.69	553.07	627.60	728.00
10th	679.38	765.28	767.21	857.64	577.19	613.28	668.17	760.07
Mean for income decile								
1st	509.95	575.00	621.62	680.49	502.73	559.88	621.48	705.83
2nd	510.26	568.59	638.97	737.97	530.36	562.25	594.09	675.93
3rd	511.77	542.59	598.31	708.58	511.42	546.76	594.23	686.58
4th	538.36	541.88	622.13	692.02	500.40	538.99	594.93	680.81
5th	527.48	628.12	643.45	768.29	526.78	548.44	615.83	730.62
6th	529.70	532.06	593.56	699.77	502.97	531.16	597.05	684.58
7th	514.73	561.05	630.79	726.70	485.99	531.36	597.18	699.10
8th	536.60	558.03	641.86	728.86	485.99	528.01	613.13	709.36
9th	518.04	562.62	628.51	744.85	483.05	528.01	613.13	709.36
10th	635.51	685.75	704.95	838.33	567.18	602.61	668.64	775.36
Mean for district type								
Below median ADM	634.91	695.16	770.89	859.75	529.57	567.19	625.43	722.17
Above median ADM	514.24	551.66	610.07	706.56	494.80	533.91	602.92	695.61
Below median % urban	540.32	584.21	638.62	736.76	514.67	553.98	606.97	695.27
Above median % urban	526.17	566.93	626.21	728.41	504.71	541.51	614.97	716.24
Below median % white	528.11	576.20	620.17	712.54	509.14	547.90	603.13	695.76
Above median % white	538.37	574.94	644.66	752.64	510.23	547.60	618.81	715.75
Below median % poverty	538.24	574.30	632.23	739.73	512.53	548.80	621.91	721.51
Above median % poverty	528.24	576.84	632.60	725.44	506.85	546.69	600.03	689.99
Correlation with								
ADM	-0.188	-0.198	-0.188	-0.198	-0.316	-0.267	-0.046	-0.035
Adj. wealth	0.504	0.478	0.343	0.306	0.397	0.367	0.339	0.336
Income	0.362	0.319	0.283	0.368	0.117	0.063	0.219	0.302
% Urban	-0.083	-0.103	-0.107	-0.069	-0.116	-0.134	0.042	0.118
% White	-0.204	-0.300	0.077	0.243	-0.278	-0.343	0.019	0.185
% Poverty	-0.236	-0.069	-0.126	-0.209	-0.071	0.050	-0.091	-0.169
Adj. tax rate	-0.396	-0.375	0.257	0.000	-0.207	-0.164	0.000	0.000
Gini by adj. wealth distribution	0.365	0.377	0.412	0.434	0.286	0.294	0.329	0.335
Gini by income distribution	0.209	0.216	0.217	0.215	0.154	0.157	0.149	0.147

Table A.63  
DISTRIBUTION OF LOCAL ADJUSTED TAX RATES  
IN NEW MEXICO

Measure	Unweighted			Weighted		
	1972-73	1973-74	1974-75	1972-73	1973-74	1974-75
Percentile						
100th	9.78	10.15	3.72	9.78	10.15	3.72
95th	5.85	6.10	3.72	5.78	6.10	3.72
75th	4.15	4.14	3.72	3.96	3.83	3.72
50th (median)	3.25	3.32	3.72	3.96	3.70	3.72
25th	2.69	2.79	3.72	3.19	3.09	2.98
5th	2.07	2.22	2.98	2.66	2.69	2.98
1st	1.40	1.67	2.98	1.40	1.67	2.98
Range	8.38	8.47	0.74	8.38	8.47	0.74
Restricted range	3.78	3.89	0.74	3.12	3.42	0.74
Restricted range ratio	1.831	1.751	0.249	1.171	1.271	0.249
Mean deviation from median	0.98	0.97	0.18	0.70	0.68	0.23
Relative deviation from median	0.302	0.292	0.048	0.176	0.184	0.062
Mean	3.63	3.65	3.54	3.93	3.83	3.49
Standard deviation	1.394	1.388	0.316	1.133	1.171	0.343
Coefficient of variation	0.384	0.380	0.089	0.288	0.306	0.099
Mean deviation from mean	1.02	1.02	0.27	0.70	0.74	0.32
Relative deviation from mean	0.280	0.278	0.076	0.178	0.194	0.091
Gini coefficient	0.197	0.193	0.038	0.138	0.142	0.046
Regression results						
Adj. wealth: Linear F	33.384	25.757	1.631	15.999	9.531	0.094
Elasticity	-0.225	-0.197	0.012	-0.150	-0.124	0.003
Quadratic F	34.608	27.364	0.876	11.151	7.008	0.084
Elasticity	-0.456	-0.424	0.017	-0.252	-0.223	-0.001
Income: Linear F	2.801	2.680	1.372	1.395	1.421	1.426
Elasticity	-0.207	-0.197	0.035	-0.149	-0.154	0.049
Quadratic F	1.422	1.484	0.806	0.817	0.706	0.728
Elasticity	-0.208	-0.191	0.035	-0.094	-0.142	0.057
Mean for adj. wealth decile						
1st	6.17	6.17	3.56	5.56	5.35	3.39
2nd	4.20	3.90	3.31	3.98	3.89	3.42
3rd	3.76	3.87	3.48	3.36	3.51	3.19
4th	4.14	4.23	3.50	4.04	4.24	3.50
5th	3.74	3.38	3.46	3.84	3.34	3.40
6th	3.55	3.59	3.72	3.96	3.70	3.72
7th	3.21	3.72	3.63	3.96	3.70	3.72
8th	2.78	2.61	3.63	3.83	3.66	3.58
9th	2.46	2.74	3.46	4.10	4.15	3.56
10th	2.31	2.33	3.63	2.66	2.79	3.38
Mean for income decile						
1st	3.72	3.85	3.52	4.57	4.35	3.36
2nd	5.22	5.07	3.26	4.56	4.53	3.59
3rd	4.70	4.51	3.50	3.45	3.58	3.40
4th	3.30	3.49	3.48	3.32	3.37	3.15
5th	3.11	3.14	3.52	3.46	3.52	3.50
6th	4.03	3.82	3.41	3.76	3.36	3.17
7th	3.63	3.95	3.59	3.96	3.60	3.63
8th	3.55	3.93	3.50	3.96	3.70	3.72
9th	4.01	3.30	3.50	3.85	3.70	3.72
10th	3.28	3.61	3.61	4.55	4.73	3.59
Mean for district type						
Below median ADM	3.24	3.32	3.63	4.07	4.11	3.43
Above median ADM	4.03	3.98	3.45	3.78	3.55	3.54
Below median % urban	3.98	3.93	3.54	4.01	4.00	3.43
Above median % urban	3.73	3.81	3.43	3.88	3.69	3.53
Below median % white	4.15	4.15	3.48	4.26	4.17	3.55
Above median % white	3.56	3.58	3.50	3.63	3.52	3.41
Below median % poverty	3.63	3.66	3.48	3.92	3.80	3.56
Above median % poverty	4.07	4.07	3.50	3.97	3.89	3.40
Correlation with						
ADM	0.072	0.044	-0.058	0.008	-0.088	0.414
Adj. wealth	-0.529	-0.480	0.136	-0.396	-0.316	0.033
Income	-0.202	-0.198	0.143	-0.144	-0.145	0.145
% Urban	-0.081	-0.055	-0.190	-0.159	-0.163	0.047
% White	0.016	0.080	0.049	-0.002	0.046	-0.014
% Poverty	0.247	0.228	-0.044	0.164	0.148	-0.066
Gini by adj. wealth distribution	0.544	0.544	0.443	0.360	0.365	0.339
Gini by income distribution	0.317	0.322	0.225	0.202	0.217	0.156



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