The Elderly Population’s Changing Spatial Distribution

Patterns of Change since 1960

Kevin F. McCarthy
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September 1983

Prepared under a grant from the National Institute on Aging, U.S. Department of Health and Human Services
This report was prepared under a grant from the National Institute on Aging, U.S. Department of Health and Human Services. It is the second of two reports dealing with the elderly population's changing spatial distribution. The first report, The Changing Geographic Distribution of the Elderly: Estimating Net Migration Rates with Social Security Data by Kevin F. McCarthy, Alan Abrahamse and Charles Hubay, R-2895-NIA, March 1982, described a procedure designed to estimate a county's elderly net migration rate using administrative data from the Social Security Administration. This report documents the patterns of change in the elderly's spatial distribution and the demographic processes that have produced them. It also introduces a model to explain these new patterns. Finally, it discusses the implications of these changes for public policy concerned with service delivery to the elderly.
SUMMARY

National patterns of migration and locational choice have changed markedly since the 1960s. The "interior redecorating" that these changes entail has altered the age composition of local areas in ways that could influence the delivery of services to America's elderly. This report examines the shape, dimensions, dynamics, and implications of those changes. Its specific objectives are to document the geographic patterns of age recomposition that have occurred since 1960, to analyze the demographic processes that have generated those changes, to identify the characteristics of areas that are experiencing specific patterns of age recomposition, to explore the dynamic behind these changes, and to suggest their implications for service delivery to the elderly.

Several important changes have taken place among the nation's elderly since 1960 that have altered the traditional view of their service needs. First and foremost, the elderly are becoming more numerous, having increased nearly three times faster than the total population. Concurrently, the spread of private pension coverage and the indexing of Social Security benefits have provided older Americans with an income alternative to earnings that has enabled many to retire earlier and with less worry about meeting their income requirements after their working years. Third, the elderly are living longer and experiencing better health in later life and thus are assured a more active period of retirement than their predecessors. Finally, until very recently the elderly have experienced a marked increase in incomes relative to the nonelderly. These changes have expanded the locational freedom of the nation's over-65 population concurrent with their becoming more politically important.

These changes have occurred while nonelderly migration patterns have also been changing and fertility has declined, making migration more important in determining which areas will grow and which will decline. Included are the well-publicized population shift from the snowbelt to the sunbelt and a shift from larger to smaller communities in all regions.

The policy significance of these new migration patterns assumes special importance because of the way migration affects the age structure of local populations. Changes in fertility tend to restructure the age composition of local areas in a more or less uniform way, while changes in migration can dramatically change the character of local areas. Such effects are not as straightforward as is often assumed. For
example, migration flows can generate aging of a local population in three analytically distinct ways. Elderly residents may be left behind in an area that more mobile residents are leaving and thus constitute an increasing share of local population—a process called accumulation. Alternatively, the elderly may be drawn to areas that other residents are leaving and thus concentrate in a local area through a process labeled recomposition. Finally, even if migrants of all ages are drawn to an area, older people may be drawn in relatively greater numbers than younger ones and as a result be concentrated through a process identified as congregation.

Each of these configurations of migration rates will generate an increasing concentration of elderly residents, even though each may have very different consequences for service delivery for the elderly. For example, the service needs generated in areas where the elderly are being left behind by the departure of younger residents are likely to be those of disadvantaged elderly who are left to fend for themselves in an economically distressed region. By contrast, areas that have experienced a rapid influx of migrants of all ages may not only be able to satisfy the needs of affluent elderly newcomers but may indeed prosper from an influx of residents who increase aggregate demand without taxing the local labor market.

Together these changes in migration patterns have considerably altered the geographic distribution of the nation's elderly in several important ways since 1960. For example, the elderly have become more geographically concentrated. Whereas nearly three-fifths of the nation's counties experienced elderly concentration before 1970, only slightly over one-third did thereafter. Paradoxically, as the geographic scope of concentration narrowed, the fraction of the nation's elderly living in concentration counties increased from 27 to 50 percent. These shifts reflect the changed profile of the typical concentration county. Elderly concentration has shifted from being a primarily non-metropolitan phenomenon characteristic of thinly settled counties to a predominantly metropolitan occurrence that is especially prevalent in core counties of metropolitan areas.

Coincident with these geographic changes, the migration configurations producing elderly concentration have shifted away from accumulation and recomposition toward congregation. In other words, the demographic process generating elderly concentration has changed from the elderly being left behind in areas that other younger residents are leaving to one in which the elderly are concentrating in areas that they have actively chosen.
These shifts reflect new patterns of locational choice since 1970. Elderly migrants have become more consumption-oriented as they have taken advantage of rising relative incomes and moved to areas with more attractive climates and greater natural amenities. Older Americans have also begun to favor larger towns and cities over small, sparsely settled rural counties. Finally, taking advantage of a more active post-working period occasioned by better health and earlier retirement, they have increasingly favored locations outside the South.

Nonelderly migration patterns have changed as well and often in opposite ways. For example, nonelderly migrants are moving away from larger population centers toward less congested locations. In addition, the nonelderly, notwithstanding popular images of sunbelt migration, appear to be attracted to the South and West not merely by desirable climates but by the rapid expansion of job opportunities and the widespread diffusion of climate control technologies that have effectively neutralized the negative aspects of hot and humid summers that characterize much of the sunbelt region.

Although there is no conclusive evidence as to why these changes have occurred, two distinctive trends apparently have weakened the traditional constraints on migration. First, an increasing proportion of the elderly now seem to enjoy a new locational flexibility: They are assured an adequate income regardless of location and their retirement is longer and more active than that of their predecessors. The migration patterns of the nonelderly, by contrast, probably are best explained in terms of a diminution of the traditional attractive power of population agglomeration and the environmental constraints on economic development.

The implications of these changes for service delivery to the elderly depend heavily on differences in the characteristics of elderly migrants and nonmigrants and of elderly migrants to different destinations. If, as is generally thought to be the case, elderly migrants are more affluent than elderly nonmigrants, or elderly migrants to specific areas differ substantially from migrants to other areas, then areas in which the elderly are concentrating through accumulation will have very different service needs than those in which the elderly are concentrating through recomposition or congregation.

Given our incomplete knowledge of these issues, the direct implications from these findings must necessarily remain tentative. Several important points are nevertheless suggested. The service needs of the elderly in accumulation areas are likely to differ considerably from those congregation areas. In accumulation areas, the elderly are likely to be those who have been left behind in economically depressed areas
because they lack the means or motivation to change residence. In congregation areas, the elderly are presumably more affluent and thus better able to fend for themselves. Furthermore, given the apparent diversity in the migration patterns of the elderly, targeting assistance to areas experiencing an increase in the number of its elderly residents is far too simplistic an approach. A more sophisticated targeting strategy, based on more detailed measures, will be required. Finally, given the volatility of migration patterns over the last two decades, it is clear that all levels of government, and local governments in particular, will need to be sensitive to the pace and nature of migration change in the future if they are to respond to the service needs of their residents.
ACKNOWLEDGMENTS

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CONTENTS

PREFACE ........................................ iii
SUMMARY ....................................... v
ACKNOWLEDGMENTS ............................. ix
FIGURES AND TABLES ........................... xiii

Section
I. INTRODUCTION ............................. 1
   Rationale for Study ....................... 1
   Migration and Population Concentration 3
   Organization of the Report ............. 4
II. DATA SOURCES .............................. 6
   County Units of Analysis ............... 6
   Data Sources ................................ 7
III. THE CHANGING DYNAMICS AND PATTERNS OF ELDERLY CONCENTRATION .......... 9
    The Changing Dynamics of Elderly Concentration 10
    The Convergence of Net Migration Rates 10
    Alternative Configurations of Migration 12
    Changing Patterns of Elderly Concentration 13
    Metro-Nonmetro Comparisons ............ 15
    Regional Comparisons .................. 18
    Economic Dimensions ................... 20
    Summary .................................. 22

IV. THE CHANGING PROFILE OF CONCENTRATION COUNTIES ............................. 23
    Metro-Nonmetro Comparisons ........... 23
    Regional Patterns ....................... 25
    An Economic Profile of Concentration Counties 27
    Summary .................................. 31

V. THE CHANGING DETERMINANTS OF MIGRATION .................................... 32
   Opportunity vs. Consumption-Oriented Migration 32
A Model of Net Migration .................................................. 33
Empirical Results ............................................................ 38
Summary ................................................................. 46

VI. SUMMARY AND CONCLUSIONS ........................................ 48

BIBLIOGRAPHY .......................................................... 53
FIGURES


TABLES

2. Analytical Typology of Migration Configurations .................. 12
8. Summary Statistics of Variables Used in Net Migration Models ................................................................. 37
I. INTRODUCTION

RATIONALE FOR STUDY

During the 1970s, the nation's elderly population experienced several interrelated demographic and social changes whose effects will be felt throughout the coming years. First and most apparent, the elderly are becoming more numerous, having increased nearly three times faster than the under-65 age group (U.S. Bureau of the Census, 1982). This relative increase is projected to continue, and before the middle of the next century the over-65 population (which now numbers some 26 million) will more than double; and their share of the total population will have increased from 11 percent to between 18 and 20 percent (U.S. Bureau of the Census, 1977). Furthermore, provided greater access to income alternatives to earnings, today's older Americans are retiring earlier (Bednarzik and Klein, 1977; Boskins, 1977; Quinn, 1978). People are living longer and experiencing better health in later life than their predecessors and so can look forward to a longer and healthier retirement period (Crimmins, 1981; Fries, 1980; Siegel, 1980). Finally, the expansion of private pension plans and indexing of Social Security benefits for cost-of-living increases have provided older people with rising real incomes (Clark et al., 1978; Pampel, 1979).

Higher real incomes and a longer and healthier period of retirement have expanded the locational choices available to older Americans. Compared with their predecessors, today's prospective retirees can look forward to longer intervals of financial security without being tied to a specific area by a job (Boskins, 1977; Quinn, 1978). Apparent increases in the rate at which the elderly are moving (Flynn, 1978; Heltman, 1975) suggest that a rising fraction are taking advantage of this opportunity and basing their migration decisions on "consumption-oriented" amenity considerations.

America's elderly are not evenly spread across the nation's landscape. Although fully one of every six Florida residents is over 65, less than one in 13 of Utah's residents is that age. Because the elderly are one of the two service-intensive age groups within the population (the other being school-age children), their increasing numbers and changing locational propensities will profoundly influence the future delivery of services to them. These service effects will be most directly
felt in those areas of the country that are emerging as points of present and future elderly concentration.

The inevitable "graying" of the U.S. population will place greater prominence on their service needs, and their location will become increasingly important as all levels of government attempt to deal with a changing population's needs. What are the elderly's probable future needs? How is entitlement to be defined? What levels of government should be involved in meeting these needs, and how?

These emergent issues translate into several specific needs for information. Federal officials will require forecasts of where older Americans are concentrating—for example, to site such major facilities as Veteran's hospitals. Will the nation's retired veterans generally follow the same migratory paths as the nation's population as a whole, or will they be left behind when the younger population moves on?

State governments, whose responsibilities for financing social service programs are increasing, also must track the locations of the elderly. Such information will be needed in choosing which social service programs to support and how to target that assistance. For example, the decision to appropriate additional funds for education rather than health services must be justified on the basis of the changing distribution of the clientele population.

Finally, local governments (often the service providers of last resort) need to foresee and monitor changes at the community and neighborhood level if they are to accommodate the service demands of their residents. Communities faced with pressures to sell rather than convert an empty school into a senior citizens' center, for example, would benefit from knowing where their elderly residents are living.

This study examines the changing patterns of elderly concentration since 1960: what has changed, why the changes are happening, and what they portend for the future.

Its objectives are:

1. To document county-level patterns of elderly concentration;
2. To analyze the demographic processes that generate local concentrations of elderly persons and how those processes are changing;
3. To identify the distinctive characteristics of counties experiencing one or another form of elderly concentration;
4. To consider the implications of these changes for meeting the elderly's future service needs.
This report is the second of two companion studies resulting from Rand's inquiry into the elderly population's changing geographic distribution.¹

MIGRATION AND POPULATION CONCENTRATION

How do localities acquire a disproportionate share of elderly residents? Conceptually, the fraction of an area’s residents who are elderly increases through a change in either the denominator or the numerator of that fraction. The denominator will decrease if, for example, the number of births declines and reduces the size of young cohorts entering the population, or if migration selectively withdraws nonelderly residents. The numerator will increase if migration selectively adds elderly newcomers to the resident population or if the number of residents surviving past 65 increases.

The effects of changing fertility and mortality, which largely account for the aging of the population as a whole, tend to be felt more or less uniformly across the country. Migration’s effects, however, tend to be sharply focused geographically and can often have a direct and immediate effect on the number of elderly in an area. This study examines elderly concentration, defined as a disproportionate rise in the fraction of an area’s population that is elderly,² as it arises from migration.

Elderly concentration is typically generated by migration, although not always as suggested by the image of Tampa, Tucson, or the other destinations popular with elderly migrants. Concentrations of the elderly are generated by other configurations of migration as well; indeed, an influx of elderly by itself is neither necessary nor sufficient to bring about a concentration of elderly in an area. Migration flows can generate elderly concentration in three analytically distinct ways, each differing according to the configuration of elderly and nonelderly migration flows (Graff and Weisman, 1978):

1. Accumulation: Elderly residents may be left behind in an area that other, younger residents are leaving. In this case, elderly concentration results from the migration of the nonelderly—as witnessed in Appalachia during the 1960s and in the declining

¹The first study (McCarthy et al., 1982) presents a procedure designed to estimate a county’s elderly net migration rate using administrative data from the Social Security Administration. This procedure is intended for use by state and local planning agencies.

²For example, if the proportion of elderly in an area increases by 20 percent over a decade, while the percentage of nonelderly increases by only 10 percent, we can say that community experienced a disproportionate concentration of elderly.
central cities of many older metropolitan areas during the 1970s.

2. **Recomposition**: Elderly persons may be drawn to an area that nonelderly residents are leaving. Here, it is the opposite direction of elderly and nonelderly migration flows that, by recomposing an area’s population, generates elderly concentration. This process has occurred in many of the nation’s nonmetropolitan counties where economic opportunities have been insufficient to retain working-age residents but small-town amenities and low living costs have attracted elderly migrants—for example, in the Upper Midwest and West Virginia.

3. **Congregation**: Finally, migrants of all ages may be attracted to an area but elderly migrants may move in more rapidly than the nonelderly. Such magnet areas as Arizona and Florida exemplify this process.

Each of these migration configurations will generate elderly concentration but with distinctly different local circumstances and distinctly different implications for service demands and delivery. These distinctions arise because elderly migrants are generally much more affluent than nonmigrants (Biggar, 1980; Longino and Biggar, 1981). Thus, the service needs generated in areas undergoing congregation are typically those of well-to-do retirees (as in Arizona); such needs will differ substantially in areas undergoing accumulation (as in the Mississippi Delta) where disadvantaged elderly residents have been left behind to fend for themselves in a chronically distressed region that younger, more mobile residents have abandoned. Moreover, areas into which elderly migrants are flowing are generally better able to accommodate the service demands of those migrants (Lee, 1980).

**ORGANIZATION OF THE REPORT**

Section II describes the data on which this inquiry is based, including the procedure developed for measuring (and, in the future, continuing to monitor) the migration of elderly Americans. Section III examines post-1960 changes in the degree of elderly concentration and the relative importance of the separate migration configurations that produce concentration. It also compares the characteristics of concentration with deconcentration counties. Section IV examines differences among the three types of concentration counties and shows that the changing characteristics of elderly concentration counties reflect basic
changes in the pattern of elderly and nonelderly migration. Section V introduces a model identifying many of the factors that help explain these new patterns of migration during the 1970s. Section VI summarizes the major findings and discusses their implications.
II. DATA SOURCES

The objectives of this analysis—to identify and analyze patterns of elderly concentration and contemporary changes in them—dictate the types of data used and the geographic and time scales to which these data refer. This section discusses the rationale for using counties as the unit of analysis, the constraints on the analysis introduced by the availability of data, and the procedure used to estimate elderly net migration rates for the post-1970 period.

COUNTY UNITS OF ANALYSIS

The nation's approximately 3100 counties are the units of analysis in this study for several reasons. First, they emphasize how migration has reshaped the spatial distribution of America's elderly, and migration (as distinct from local residential mobility) is defined conventionally with reference to entire local labor and housing markets. At a minimum, migration implies moving across county lines. Recent evidence suggests that the elderly may now be moving at triple the rate they did several decades ago (Flynn, 1978), mostly because of higher rates of migration rather than local mobility (Heltman, 1975). Second, counties are the smallest geographic unit that have most of the requisite variables with which to analyze the population's changing geographic distribution. Finally, county boundaries (unlike those of smaller jurisdictions) are constant over time.

Certain counties had to be excluded from our analysis. Altogether these exclusions totaled some 70 counties or county equivalents—

1. Intercounty moves typically entail moving from one market area to another, but not always. Certain metropolitan areas, for example, contain multiple counties. Thus, some intercounty moves may be intrametropolitan. Conversely, some moves within a county, for example in New England where towns are the more meaningful unit, could reasonably be regarded as moves between separate market areas.

2. In Alaska, for example, counties as such do not exist. Boroughs and census divisions constitute the equivalent units, but definitions of these units have changed, posing problems of comparability over time whose solutions were infeasible. Accordingly, we excluded Alaska from our analysis. (However, with less than 3 percent of its population over 65, Alaska is not a glaring omission.) Virginia presented similar problems of geographic comparability, because data for independent cities are reported separately from counties. It was not always possible to link data for independent cities to the counties in which they were located, so certain independent cities were dropped from the analysis. Elsewhere, sporadic comparability problems or missing data on one or another independent variable forced another three dozen counties to be dropped from the analysis.
slightly more than 2 percent of the nation's approximately 3100 counties. These exclusions are sufficiently few to keep intact the scientific validity of the results.

DATA SOURCES

To identify the spatial patterns of elderly concentration and analyze their determinants, we needed county-level data on patterns of elderly and nonelderly migration and on the variety of county characteristics that selectively attract or repel prospective migrants. The potential range of such characteristics is substantial, including social, economic, demographic, service, climate, and structural factors. Because no single data source contained the variety of information needed, many sources were used:

2. 1977 Consolidated City-County Data Book Computer File, for historical data on municipal services, revenues, and expenditures.
3. Area Resource File, for data on county health facilities, climate, and natural amenities.

Data from the first three sources were used to identify the characteristics of counties that might explain their migration configuration. The age-specific net migration data were used to classify counties according to their migration configuration during the 1960s. The Current Population Reports data provided the needed estimates of a county's total net migration rate for the 1970–1977 period (the latest available data when this study was initiated). Administrative data on Social Security beneficiaries furnished a symptomatic indicator of elderly migration for this same period, which were used in conjunction with the Current Population Reports data to identify migration configurations for the post-1970 period.
By far the most difficult of the study's data requirements was the need for county-level elderly net migration estimates for the post-1970 period. When this research was initiated, no such data existed, so they had to be estimated for this study. This approach to estimating elderly migration rates combined elements of the residual method of estimating net migration (see Shryock and Siegel, 1973; and Tordella, 1980) with the use of a symptomatic measure (counts of Social Security beneficiaries) to estimate elderly population change. Certain assumptions underlay the approach. First, net migration can be estimated as the difference between the population in a county at the end of the migration interval minus the population at the beginning of the interval plus natural increase (births minus deaths or in the case of the elderly population “aging-in-place” minus deaths) during the interval. Second, after I adjusted for changes in coverage (the proportion of elderly in an area who receive Social Security), changes in the number of recipients reflect changes in the size of the elderly population. Third, the parameters of the estimation model when estimated for the 1960–1970 period will not change significantly for the post-1970 interval.

Although these assumptions may have introduced some error into the estimates, the model as a whole appears to have performed very well (see McCarthy et al., 1982). However, the decision to examine patterns of elderly migration since 1960 introduced two constraints on the estimation approach. First, the symptomatic indicator of elderly population change was needed for the entire study period (from 1960 through the 1970s). This constraint ruled out use of Medicare data, which are often used as an indicator of elderly population size, because the Medicare program did not begin until the mid-1960s. Second, the study could be no more recent than 1977, the last year for which Social Security information was available when the study began.

Briefly, then, the analysis has been constrained by several practical considerations that predefine the period being studied and limit the precision with which at least one important variable could be measured. Clearly, the results can benefit from subsequent replication when more timely data become available.

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3The details of this procedure and an illustration of its use are contained in McCarthy et al. (1982). Briefly, the estimation procedure entailed (1) measuring year-to-year changes in counts of Social Security beneficiaries (the symptomatic measure of elderly population change), (2) specifying a model relating these changes to elderly net migration rates, (3) estimating the model for a benchmark period (when both Social Security counts and elderly net migration rates were available), (4) using the coefficients of the model in conjunction with Social Security recipient counts for the post-1970 period to estimate elderly net migration.
III. THE CHANGING DYNAMICS AND PATTERNS OF ELDERLY CONCENTRATION

National patterns of migration and locational choice have changed markedly over the past two decades. The "interior redecorating" that these changes have produced is most frequently characterized as a shift from the "snowbelt" to the "sunbelt"—from the Northeast and North Central regions to the South and the West. Fully 90 percent of the nation's population growth during the 1970s occurred in these latter two regions. Migrants were, however, also drawn to smaller communities in all regions of the country. This latter shift assumed several forms (Morrison and McCarthy, 1982). First, migration to larger metropolitan areas (those over a million residents) slowed and in many of the very largest even halted. By contrast, migration to smaller metropolitan areas accelerated, particularly in areas smaller than a half-million population. Second, increasing numbers of migrants moved beyond the metropolitan fringe, creating widening zones of growth in nonmetropolitan areas within commuting distance of major metropolitan centers (Beale and Fuguit, 1980). Third, a small but significant number of migrants moved farther away from metropolitan centers, settling in nonmetropolitan areas beyond commuting distance from metropolitan areas (McCarthy and Morrison, 1977). Although this shift toward smaller communities has been multifaceted, its end product has been a reversal of the century-long pattern of migration from nonmetropolitan to metropolitan areas—a reversal referred to in the literature as the "turnaround phenomenon."

Migration affects regions and localities unequally—adding residents to one area and subtracting population from another. Within the current national context of lower natural increase, the net effect of these new migration patterns has been to increase spatial diversity. In other words, migration has become increasingly important in determining which areas will grow and which will lose residents. Many localities long accustomed to growth now find it has stopped, and areas that have traditionally lost residents now find local growth accelerating. Increasingly, the difference turns on where migrants choose to settle.
THE CHANGING DYNAMICS OF ELDERLY CONCENTRATION

The spatial concentration of elderly persons has also changed as a result of three basic transformations: First, the process of concentration has become more sharply focused geographically; second, the dynamic behind concentration has shifted away from accumulation and toward congregation; third, the characteristics of counties undergoing concentration have changed.

During the decade of the 1960s, the elderly’s share of the nation’s population rose only modestly (from 9.2 to 9.8 percent); however, nearly six of every ten counties experienced elderly concentration, typically through “accumulation.” The following decade saw a far more pronounced increase in the elderly fraction—from 9.8 to 11.3 percent—but, paradoxically, a much smaller fraction (only 1 in 3) of the nation’s counties experienced elderly concentration.

In addition, as fewer counties were undergoing concentration, the processes producing concentration were changing. Whereas the decade of the 1960s was marked by the elderly being left behind by younger outmigrants, in the 1970s the elderly were actively choosing the areas where they wished to settle. In short, the process of elderly concentration had shifted from accumulation to congregation.

The kinds of counties typically undergoing elderly concentration also have changed over these two decades. During the 1960s, concentration was confined almost exclusively to nonmetropolitan areas, usually thinly settled counties where average incomes and employment growth lagged and employment was concentrated in the primary sector. During the 1970s, concentration no longer was disproportionately a nonmetropolitan phenomenon and was actually underrepresented in the most rural counties. Indeed, elderly concentration counties were not readily distinguishable from other counties on most indexes.

THE CONVERGENCE OF NET MIGRATION RATES

Historically, a small fraction of the nation’s counties have attracted a disproportionate share of the nation’s migrants. The dynamic behind this pattern rested in the shift out of agriculture and the expansion of manufacturing and service employment in the nation’s urban centers that spurred the metropolitanization of America throughout most of the twentieth century.

The remnants of this pattern are still evident for the total population during the 1960–1970 period. Table 1 shows the distribution of
counties by their total and elderly net migration rates for the 1960 and 1970 decades. During the 1960s, over three-fifths of the nation's counties registered outmigration at an annual rate of 0.25 percent or more, whereas fewer than one-quarter registered immigration of 0.25 percent or greater. By contrast, roughly equal fractions of counties attracted and lost elderly migrants during the 1960s. An important difference in migration patterns before 1970 was that elderly migration patterns were much less focused geographically than nonelderly patterns, with many more places receiving elderly than nonelderly immigrants and, conversely, many fewer losing elderly than nonelderly outmigrants.

After 1970, the distribution of elderly and total net migration rates converged, largely because nonelderly migration patterns became more geographically balanced as the elderly migration patterns had been before. Over half the nation's counties in the 1970s were gaining and only one-quarter were losing nonelderly migrants. This reflects the changing pattern of locational choice that emerged after 1970, the regional shift to the South and the West, the resurgence of growth in

Table 1


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*Number of outmigrants (-) or inmigrants (+) per hundred county residents.
nonmetropolitan areas, and the shift from larger to smaller metropolitan areas.

ALTERNATIVE CONFIGURATIONS OF MIGRATION

Earlier I distinguished three distinct migration configurations that produce elderly concentration. These are identified with reference to an analytical typology shown in Table 2, which classifies counties along two dimensions: (1) the net migration rate for the total (all ages) population, and (2) the difference between the rates of elderly and total net migration. The sign in each cell of the table indicates, for the given configuration of rates, how the relative share of elderly persons in the population would change.

The configuration labeled accumulation refers to elderly concentration that occurs when nonelderly persons on balance depart from a county in which elderly persons tend on balance to remain. As the total population of such a county declines, the percentage of remaining residents who are elderly rises. Operationally, accumulation occurs when a county's total net migration rate is negative (-0.25 percent per year or lower) and at least 0.5 percentage points below the elderly net migration rate.

Table 2
ANALYTICAL TYPOLOGY OF MIGRATION CONFIGURATIONS

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<sup>a</sup>Number of outmigrants (-) or immigrants (+) per hundred county residents.
The configuration labeled *recomposition* describes a situation in which an influx of elderly migrants replaces an outflow of nonelderly migrants and thus raises the elderly's share of the total population. Operationally, recomposition occurs when the elderly net migration rate again exceeds the total net migration rate by at least 0.5 percentage points and the total net migration rate lies between $-0.25$ and $+0.25$ percent per year.

The third configuration, labeled *congregation*, occurs when a county is gaining migrants at all or most ages but the elderly are moving in at a higher rate than the nonelderly. Operationally, congregation counties are those in which the total net migration rate exceeds 0.25 percent and the elderly migration rate is at least 0.5 percentage points higher than the total net migration rate.

**CHANGING PATTERNS OF ELDERLY CONCENTRATION**

**The National Perspective**

During the 1960s, elderly concentration occurred in fully 57 percent of the nation's counties (Fig. 1); in contrast, only 15 percent registered a declining share of elderly residents—elderly deconcentration. The 1960s, of course, were a decade of pervasive population loss for many counties. Accordingly, the predominant configurations producing concentration were accumulation and recomposition, which together accounted for 92 percent of the counties registering concentration. This pattern underscores an important aspect of the changing geographic distribution of the elderly during the 1960s: Elderly concentration, although occurring in well over half the nation's counties, was not a straightforward matter of older Americans migrating, but rather the byproduct of very different patterns of elderly and nonelderly migration. These differentials elevated the percentage of elderly residents in the many areas across the country that were losing working-age migrants.

In contrast, elderly deconcentration tended to be associated more with the rapid influx of younger migrants than with elderly outmigration. Over 70 percent of the counties with a declining share of elderly residents also registered a sharp influx of nonelderly migrants. Indeed, as a general rule, the elderly's share of local population tended to rise in counties that were losing migrants and to decline (or at least remain stable) in counties that were gaining migrants.
Fig. 1—The changing patterns of elderly concentration: 1960–1970 and 1970–1977

There has been a clear-cut change in these patterns since 1970. A consistently lower fraction of counties underwent elderly concentration after 1970 than before (36 percent vs. 57 percent) and a consistently higher fraction recorded elderly deconcentration (28 percent vs. 15 percent). Together, these shifts reflect the nationwide evening out of
migration whereby fully 55 percent of the nation's counties registered net immigration during the 1970s.

This resurgence of migratory growth in many counties that formerly lost residents has also changed the balance among the migration configurations that produce elderly concentration. Accumulation, the dominant process before 1970, was the least important thereafter. Decomposition, which currently accounts for the largest share of concentration, also declined in frequency. Indeed, congregation is the only one of the three processes found more frequently in the 1970s than in the 1960s, and its frequency has more than doubled. In effect, the phenomenon of elderly concentration has changed from nonelderly migrants leaving elderly migrants behind to one of elderly persons migrating to target destinations.

Although an increasing proportion of elderly concentration counties is experiencing net immigration, the same is also true of deconcentration counties—over 80 percent (vs. 70 percent during the 1960s) experienced total net immigration during the 1970s. These findings suggest that although elderly concentration may no longer be as closely linked with population decline, elderly and nonelderly migrants may be choosing dissimilar types of destinations. This last point directs attention away from the factors that may have been keeping the elderly in places that other migrants were leaving and toward those destinations that are now attracting elderly newcomers.

METRO-NONMETRO COMPARISONS

Equally noteworthy are changes in the types of counties where elderly concentration and deconcentration are typically underway. One change is shown in Table 3, which compares concentration and deconcentration counties according to their urbanization status. Metropolitan counties are classified here by size and, for the most populous, by whether they contain a metropolitan central city; nonmetropolitan counties are classified on a scale of urban influence that ranges from urbanized counties adjacent to a Standard Metropolitan Statistical Area (SMSA) to rural counties not adjacent to an SMSA.¹

¹Counties are classified here in terms of the degree of urbanization within the county and their susceptibility to external urban influence (proximity to a metropolitan area) using a scheme devised by the U.S. Department of Agriculture's Economic Research Service (USDA, 1974). The six nonmetropolitan county types distinguished in this classification describe a scale of urban influence in which each succeeding group is affected to a lesser degree by the social and economic condition of urban areas. For further detail on this classification, see McCarthy and Morrison, 1977.
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<td>Concentration</td>
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<td>Deconcentration</td>
<td>Concentration</td>
<td>No Change</td>
<td>Deconcentration</td>
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<td>40.8</td>
<td>38.0</td>
<td>33.4</td>
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<td>59.2</td>
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<td>4.1</td>
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<td>Fringe</td>
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<td>21.3</td>
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<td>39.5</td>
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<td>27.8</td>
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<tr>
<td>Small</td>
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<td>51.1</td>
<td>17.8</td>
<td>44.3</td>
<td>33.9</td>
<td>21.8</td>
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<tr>
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<tr>
<td>Urbanized</td>
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<tr>
<td>Adjacent</td>
<td>33.5</td>
<td>42.4</td>
<td>24.1</td>
<td>52.4</td>
<td>39.8</td>
<td>7.8</td>
</tr>
<tr>
<td>Remote</td>
<td>45.9</td>
<td>39.3</td>
<td>14.8</td>
<td>44.0</td>
<td>40.0</td>
<td>15.6</td>
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<tr>
<td>Less Urban</td>
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<tr>
<td>Adjacent</td>
<td>59.3</td>
<td>33.8</td>
<td>6.9</td>
<td>37.7</td>
<td>42.0</td>
<td>20.3</td>
</tr>
<tr>
<td>Remote</td>
<td>72.9</td>
<td>20.8</td>
<td>6.3</td>
<td>42.1</td>
<td>36.1</td>
<td>21.8</td>
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<td>19.6</td>
<td>11.4</td>
<td>16.3</td>
<td>36.7</td>
<td>46.9</td>
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<tr>
<td>Remote</td>
<td>78.7</td>
<td>14.1</td>
<td>7.2</td>
<td>27.9</td>
<td>29.4</td>
<td>42.7</td>
</tr>
<tr>
<td>Percent of All Counties</td>
<td>57.3</td>
<td>27.4</td>
<td>15.3</td>
<td>36.3</td>
<td>35.8</td>
<td>27.9</td>
</tr>
</tbody>
</table>
Elderly concentration was primarily a nonmetropolitan phenomenon during the 1960s, occurring in fully two-thirds of nonmetropolitan counties but only about one-fifth of metropolitan counties. Elderly deconcentration, conversely, was most typical in metropolitan areas. Furthermore, the prevalence of elderly concentration was clearly associated with the level of urbanization during the 1960s: The least urbanized counties were the likeliest to register concentration. This pattern is consistent with our earlier observation that elderly concentration during the 1960s occurred largely through the process of accumulation in the wake of a long-standing migratory exodus from rural areas.

Since 1970, concentration and deconcentration have ceased to be distinctively metropolitan or nonmetropolitan phenomena: Both are now found in roughly the same proportions in metropolitan and nonmetropolitan areas alike. Their frequency in the different types of metropolitan and nonmetropolitan counties, however, has changed dramatically. Concentration, which was most characteristic of rural remote counties, became a decidedly more urban phenomenon after 1970, occurring most frequently in the most urbanized category (core counties of large metropolitan areas). Elderly deconcentration, by contrast, is now occurring with much greater frequency in nonmetropolitan counties, especially the more rural ones.

Corresponding to the reversal of the traditional rural to urban migration flow, the geographic pattern of age recomposition has also changed since 1970. Rural counties in which elderly residents formerly had accumulated as a by-product of the outmigration of younger residents to urban centers have recently witnessed the reverse: An influx of younger migrants has lowered the proportion of elderly in those areas. In contrast, a far higher proportion of the core counties in the nation’s largest metropolitan areas has, since 1970, begun experiencing the elderly accumulation formerly confined to nonmetropolitan areas.

As elderly concentration has shifted away from nonmetropolitan and toward metropolitan areas, the proportion of elderly living in concentration counties almost doubled from 27 to 50 percent (Table 4). By contrast, fewer than one in eight elderly Americans resided in deconcentration counties during the 1970s (vs. two in five during the 1960s). Moreover, the increase in the proportion of older Americans residing in concentration areas has occurred largely in counties experiencing positive net migration (congregation counties) rather than counties with negative migration (accumulation counties). Thus, an increasing share
Table 4

<table>
<thead>
<tr>
<th></th>
<th>Total Population</th>
<th>Elderly Population</th>
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<tbody>
<tr>
<td><strong>Elderly Concentration (total)</strong></td>
<td>26.4</td>
<td>46.6</td>
</tr>
<tr>
<td>Positive Migration</td>
<td>4.9</td>
<td>18.2</td>
</tr>
<tr>
<td>Nominal Migration</td>
<td>9.1</td>
<td>18.1</td>
</tr>
<tr>
<td>Negative Migration</td>
<td>12.4</td>
<td>10.3</td>
</tr>
<tr>
<td><strong>No Change (Total)</strong></td>
<td>30.9</td>
<td>38.1</td>
</tr>
<tr>
<td>Positive Migration</td>
<td>7.3</td>
<td>15.8</td>
</tr>
<tr>
<td>Nominal Migration</td>
<td>10.8</td>
<td>6.3</td>
</tr>
<tr>
<td>Negative Migration</td>
<td>12.8</td>
<td>16.0</td>
</tr>
<tr>
<td><strong>Elderly Deconcentration (total)</strong></td>
<td>42.7</td>
<td>15.3</td>
</tr>
<tr>
<td>Positive Migration</td>
<td>23.5</td>
<td>11.4</td>
</tr>
<tr>
<td>Nominal Migration</td>
<td>4.8</td>
<td>1.4</td>
</tr>
<tr>
<td>Negative Migration</td>
<td>14.4</td>
<td>2.5</td>
</tr>
</tbody>
</table>

of the elderly may be availing themselves of the locational flexibility made possible by increasing incomes and moving to target destinations.

REGIONAL COMPARISONS

Given historical and cultural differences across the nation, the trends examined thus far might well be expected to express themselves diversely within the four Census regions. This section examines regional variations in the changing patterns of elderly concentration and deconcentration to determine how the new patterns of migration have affected the pattern of age recomposition at the regional scale. Elderly concentration was more pervasive in some regions than in others during the 1960s (Fig. 2). The historic exodus of working-age migrants out of the rural areas of the South and toward metropolitan areas in other regions was still evident during the 1960s, as over two-thirds of all counties in that region experienced elderly concentration. The substantial migration to the South during the 1970s, however, changed that pattern, sharply reducing the prevalence of elderly concentration there from two-thirds before 1970 to less than one-third thereafter.
Post-1970 migration changes in the West have altered the pattern of age recomposition there as well. Although the West experienced substantial immigration before 1970, that migration was concentrated in California, Arizona, and Nevada. As a result, despite considerable migration to the region as a whole, more than 50 percent of the counties in the West experienced elderly concentration—which as we have already shown, was primarily due to accumulation. Since 1970,
however, migration to the West has been far more widespread. Correspondingly, the prevalence of elderly concentration in that region has declined from over half to less than one-quarter of all counties.

In contrast to the patterns of age recomposition occurring in the South and West, the prevalence of elderly concentration increased sharply in the Northeast during the 1970s, as the fraction of elderly concentration counties increased from 10 to 30 percent. Many of the nation’s older and larger central cities are located in this region, and the declining population in those places provided many of the migrants that fueled the rapid growth of the South and West.

The prevalence of elderly concentration changed the least in the North Central region. Over half of all counties experienced concentration during both the 1960s and 1970s. Although counties in this region, like those in the Northeast, have on balance lost population since 1970, many more North Central counties, particularly the many rural counties, also lost migrants during the 1960s.

Although there is no direct evidence of the link between the changing patterns of migration by region and level of urbanization, these changes have undoubtedly altered the spatial pattern of age recomposition at both of these geographic scales. Moreover, the nature of these changes, particularly at the regional level, is somewhat surprising. Despite popular images of widespread retirement migration to the South and West, the net effect of recent migration flows to these regions has been to decrease rather than increase the frequency of elderly concentration in these regions.

ECONOMIC DIMENSIONS

There is evidence of clear-cut change also in the economic profiles of concentration and deconcentration counties (Table 5). Before 1970, elderly concentration counties had considerably lower levels of median family income and lagging employment growth relative to other counties. Both differences indicate the economic distress that induced nonelderly outmigration from these areas. The lower housing costs and property tax levels in concentration counties, at the same time, indicate their considerably lower living costs, an economic “plus” likely to be especially attractive to low-income retirees. One plausible

2These income and employment patterns no doubt reflect the predominance of primary sector employment in concentration counties during the 1960s. On average, 30 percent of the labor force in concentration counties (vs. 18 percent in counties with no change in the percent elderly and 15 percent in deconcentration counties) were employed in primary sector industries (principally agriculture and mining).
Table 5
ECONOMIC CHARACTERISTICS OF COUNTIES BY PATTERN OF CONCENTRATION:

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<tbody>
<tr>
<td></td>
<td>Concentration</td>
<td>No Change</td>
<td>Deconcentration</td>
<td>Concentration</td>
</tr>
<tr>
<td>Median Family Income ($)</td>
<td>3672</td>
<td>4539</td>
<td>5261</td>
<td>7551</td>
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<tr>
<td>Prior Decade Income Change (%)</td>
<td>88.0</td>
<td>90.4</td>
<td>94.3</td>
<td>82.9</td>
</tr>
<tr>
<td>Prior Decade Employment Change (%)</td>
<td>-1.7</td>
<td>7.6</td>
<td>21.0</td>
<td>7.8</td>
</tr>
<tr>
<td>Property Tax Per Capita ($)</td>
<td>78</td>
<td>80</td>
<td>100</td>
<td>169</td>
</tr>
<tr>
<td>Median House Value ($)</td>
<td>7559</td>
<td>8698</td>
<td>10,741</td>
<td>11,559</td>
</tr>
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</table>
explanation for the geographic distribution of the elderly during the 1960s, then, is that it came about principally as a process of accumulation, mirroring the economically induced exodus of nonelderly residents from distressed nonmetropolitan areas. Younger migrants, driven away by the low wages and meager job prospects prevailing in these areas, left behind elderly residents who were content to stay put in areas that offered low living costs.

Since 1970, changed patterns of migration largely erased these economic distinctions between concentration and deconcentration counties. Employment growth still trailed in concentration counties, although less than during the 1960s. However, the previous differentials in family income, property taxes, and housing values essentially disappeared after 1970—no doubt reflecting the more frequent appearance of elderly concentration in large metropolitan areas, where prices and incomes are traditionally high.3

SUMMARY

This section has indicated three important transformations in elderly concentration since 1960. First, the process itself has become more spatially focused: Although a larger fraction of elderly are living in concentration counties, concentration occurs in fewer counties. Second, its occurrence derives from a changed configuration of migration flows that is marked increasingly by the attractions that induce migrants—especially the elderly—to congregate in certain places, rather than by the failure of other places to retain all but the elderly. Third, the previously distinctive structural and economic profiles of concentration counties have come to resemble those of deconcentration counties in most respects.

3An additional indication of the shifting geographic focus of the elderly concentration process is the declining importance of primary sector employment in concentration counties. Between the 1960s and the 1970s the average level of primary sector employment in concentration counties was cut almost in half and is now somewhat lower than in deconcentration counties.
IV. THE CHANGING PROFILE OF CONCENTRATION COUNTIES

The changing profile of concentration counties described in the preceding section reflects the shifts that have occurred in concentration counties as a group. Such group changes could result from the shifting prevalence of accumulation, recomposition, and congregation in the nation's counties. Alternatively, they could arise from actual changes in the characteristics of the areas undergoing these processes.

METRO-NONMETRO COMPARISONS

To ascertain the dynamic behind the shift from elderly concentration as a predominantly nonmetropolitan phenomenon before 1970 but not thereafter, Fig. 3 compares the prevalence of accumulation, recomposition, and congregation across county types by decade. The profile of concentration counties in the 1960s shows the most accumulation and recomposition in rural nonmetropolitan counties. Indeed, the prevalence of these processes rises more or less uniformly as the degree of urban influence in a county declines. Elderly congregation, by contrast, was underway in about the same small fraction of all types of counties with one exception—core counties of large metropolitan areas. All of these large core counties were located in the sunbelt and included such rapidly growing areas as Orange, San Diego, Riverside, and San Bernardino counties in California and Dade (Miami) and Pinellas (Tampa-St. Petersburg) in Florida—which suggests that retirees heading for the sunbelt were not necessarily opting for thinly populated retirement centers.

Since 1970, both the prevalence and the settings of these three forms of concentration have changed. Accumulation, for example, is occurring less frequently and is no longer closely correlated with the degree of urban influence in the county. Accumulation has become most prevalent in large metropolitan core counties, one-third of which experienced accumulation during the 1970s. That includes several of the nation's oldest and largest metropolitan centers—Atlanta, Baltimore, Boston, Cincinnati, Cleveland, New York, and Philadelphia. This finding reflects the declining ability of large metropolitan areas and especially their central cities to retain existing and attract new
working-age residents.\textsuperscript{1} The older residents of these areas, whether by choice or necessity, have on balance been less inclined to leave.

Although the prevalence of recomposition has declined more gradually than accumulation, its correlation with degree of urban influence also diminished. After 1970 the occurrence of recomposition was considerably more uniform across the various county types. Finally, although congregation has become far more prevalent after 1970 than before, this increase was distributed fairly evenly across county types, except for nonmetropolitan rural counties. Because congregation is produced by differences between elderly and nonelderly net migration rates, the underrepresentation of congregation in entirely rural counties suggests that the so-called population turnaround in nonmetropolitan areas has been driven far more by the increased attraction of younger migrants to rural counties than to a sudden influx of older migrants.

These comparisons indicate that the more balanced geographic occurrence of elderly concentration since 1970 has arisen more from the increasingly diverse settings in which the three processes are appearing than from their changing prevalence. Indeed, the importance of urbanization levels per se in explaining the appearance of elderly concentration has greatly diminished.

\textbf{REGIONAL PATTERNS}

Regional differences in the prevalence of the three concentration processes have also diminished (Fig. 4). During the 1960s, the exodus of younger residents from the rural South in conjunction with an influx of older migrants into Florida made all three forms of elderly concentration more prevalent in the South than elsewhere. In the heavily metropolitan Northeast, by contrast, no counties experienced recomposition and only 6 percent underwent accumulation. Finally, congregation was far less likely in the Northeast and North Central states, perhaps because their harsher climates were not conducive to a rapid influx of elderly migrants.

These patterns changed in several noteworthy respects after 1970. First, accumulation became less frequent nationwide and more uniform across regions. Second, recomposition diminished in frequency in the South and West but increased in the Northeast and North Central states. (Indeed, nearly 60 percent of all recomposition counties were in

\textsuperscript{1}Each of the central cities listed in the text lost more than 10 percent of its 1970 residents by 1980 and four of the seven metropolitan areas (central cities and suburbs together) lost residents (U.S. Bureau of Census, 1981a).
the North Central region, especially in the dairy and corn belts of the Upper Midwest.) Finally, the prevalence of congregation has risen in all regions, reflecting the growing number and geographic dispersion of retirement areas in such places as the Upper Midwest, along the Atlantic Coast, and in northern New England.

Since 1970, then, all three processes generating elderly concentration have become more evenly distributed regionally. This more balanced regional pattern (paralleling the more balanced pattern across metropolitan and nonmetropolitan areas) reflects far more the diversification of the types of areas undergoing elderly concentration than the changing prevalence of those processes. In particular, since 1970, neither its metropolitan status nor its region was a reliable predictor of a county’s configuration of elderly and nonelderly migration.
AN ECONOMIC PROFILE OF CONCENTRATION COUNTIES

Before 1970, elderly concentration was typically generated by the exodus of nonelderly migrants from economically distressed areas. This pattern helps explain the close correlation between elderly concentration and degree of urban influence, because the nation’s economic growth has historically been centered in metropolitan areas. Since 1970 the relationship between degree of urban influence and elderly concentration has changed, raising the possibility that the economic correlates of elderly concentration also may have changed. To explore this possibility Table 6 examines the economic characteristics of concentration counties and how these characteristics have changed over time. To place the differences among the three types of concentration counties in a broader national context, Table 6 shows the arithmetic difference for selected economic characteristics between the average value in each type of concentration county and the corresponding national average for all counties.

Before 1970, elderly concentration counties as a group had lagging family income levels, negative employment growth, and low living costs. As seen in Table 6, this pre-1970 characterization fits accumulation and recomposition counties but not congregation counties, which were decidedly more prosperous than the former two types before 1970.

Since 1970, all three county types exhibit clear-cut signs of economic improvement relative to the national values. In each group of counties, family incomes, property taxes per capita and home values all increased in relative terms. However, on one important dimension—employment growth—the relative position of accumulation and recomposition counties was virtually unchanged, and it actually declined somewhat in congregation counties. Employment growth is perhaps the key measure of a local area’s economic vitality. Thus, the improvements on the other indicators registered by accumulation and recomposition counties may simply reflect the shifting geographic locations of accumulation and recomposition counties out of low-wage nonmetropolitan areas in the South and into higher wage (and higher cost) metropolitan areas in the Northeast and North Central regions.

This shifting regional focus of accumulation and recomposition may well reflect structural changes in the national economy that have reduced the comparative economic advantages of large metropolitan areas in the industrial Northeastern and North Central regions and concentrated recent economic growth in smaller metropolitan and nonmetropolitan areas in the South and West. Despite apparent improvements on selected economic indicators, then, the prospect of continued
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</thead>
<tbody>
<tr>
<td></td>
<td>Accumulation</td>
<td>Recomposition</td>
<td>Congregation</td>
<td>Accumulation</td>
<td>Recomposition</td>
<td>Congregation</td>
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<td>-466</td>
<td>-250</td>
<td>-127</td>
<td>+34</td>
<td>+358</td>
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<td>MD Income Change in Previous Decade (%)</td>
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<td>+12.4</td>
<td>-4.3</td>
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<td>-4.7</td>
</tr>
<tr>
<td>Employment Change in Previous Decade (%)</td>
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<td>-5.9</td>
<td>+19.5</td>
<td>-10.6</td>
<td>-5.9</td>
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</tr>
<tr>
<td>Property Taxes per Capita ($)</td>
<td>-4</td>
<td>-5</td>
<td>-4</td>
<td>+18</td>
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<td>-931</td>
<td>+498</td>
<td>-486</td>
<td>-303</td>
<td>+1699</td>
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</tbody>
</table>

*(Average value for counties of type 1) - (Average for all counties)*.
slow employment growth in accumulation and recomposition counties may well foreshadow continued economic distress. The continued rapid employment growth in congregation counties, by contrast, could foreshadow continued prosperity.

Economic differences among the three types of concentration counties are, in turn, apt to reflect underlying differences in industrial structures and comparative economic advantage. For example, the outmigration of the working-age population from nonmetropolitan areas, which induced accumulation and recomposition during the 1960s, was closely tied to the secular shift away from primary-sector employment (Beale and Fuguit, 1980). Similarly, McCarthy and Morrison (1977) demonstrated that patterns of population growth among nonmetropolitan counties during both the 1960s and 1970s were linked to their economic specialization.

Table 7 shows how the employment profiles and natural amenities of the three types of elderly concentration counties have changed since 1960. The entries in this table show the average deviation for each county type from the corresponding national value, but they are expressed here as percentages. For example, for the 1960s, the average employment in farming and mining was 35.8 percent higher in accumulation counties than in all counties. The specific industries shown in Table 7 have been found to be closely associated with an area's attractiveness to migrants (McCarthy and Morrison, 1977).

During the 1960s, the industrial composition of employment in all three types of concentration counties differed markedly not only from the corresponding national averages, but also among themselves. Employment in accumulation and recomposition counties was heavily concentrated in primary industries, reflecting their specialization in agriculture and mining. In congregation counties, by contrast, employment was concentrated in public administration and recreation—both major growth industries during the 1960s. Indeed, counties specializing in recreation were the one type of nonmetropolitan county that experienced substantial inmigration during the 1960s (McCarthy and Morrison, 1977).

The natural amenity comparisons shed further light on the characterization of congregation counties in the 1960s as magnet areas for affluent retirees. During the 1960s, such counties enjoyed the benefits of either warm and sunny winters (e.g., in Arizona and California) or ready access to water sports (e.g., the New Jersey coast, northern Michigan, and Cape Cod) or both (e.g., Florida).

Since 1970, the industrial patterns of employment in all three types of concentration counties have converged toward the national average.
Table 7

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<tbody>
<tr>
<td></td>
<td>Accumulation</td>
<td>Recomposition</td>
<td>Congregation</td>
<td>Accumulation</td>
<td>Recomposition</td>
<td>Congregation</td>
</tr>
<tr>
<td><strong>Employment by Industry (%)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Farming and mining</td>
<td>+35.8</td>
<td>+16.7</td>
<td>-23.4</td>
<td>+26.6</td>
<td>+9.1</td>
<td>-26.4</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>-26.8</td>
<td>-15.0</td>
<td>-14.4</td>
<td>-15.6</td>
<td>-6.4</td>
<td>-9.2</td>
</tr>
<tr>
<td>Recreation</td>
<td>-18.5</td>
<td>-8.8</td>
<td>+50.9</td>
<td>-5.3</td>
<td>-5.3</td>
<td>+31.5</td>
</tr>
<tr>
<td>Public administration</td>
<td>-7.8</td>
<td>-7.4</td>
<td>+17.7</td>
<td>+5.3</td>
<td>-10.6</td>
<td>+4.4</td>
</tr>
<tr>
<td><strong>Natural Amenities Indexes</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean Temperature, January</td>
<td>0</td>
<td>+2.4</td>
<td>+29.0</td>
<td>+1.4</td>
<td>-10.1</td>
<td>+9.5</td>
</tr>
<tr>
<td>Mean sunlight hrs, January</td>
<td>+2.7</td>
<td>+4.1</td>
<td>+10.6</td>
<td>+4.0</td>
<td>+2.1</td>
<td>+6.6</td>
</tr>
<tr>
<td>Water area (%)</td>
<td>-35.1</td>
<td>-8.8</td>
<td>+106.1</td>
<td>-11.8</td>
<td>-34.2</td>
<td>+53.5</td>
</tr>
</tbody>
</table>

*Index = (Average for counties of type i/Average for all counties) 100.
Such convergence is clearest in recomposition counties where in only one industry—public administration—does average employment deviate by as much as 10 percent from the nationwide average. The industrial specialization of accumulation and congregation counties also has diminished, although their specializations in primary and recreation industries have not disappeared. The natural amenity profiles of concentration counties also changed somewhat after 1970 as, most notably, congregation counties lost some of their relative advantages on each of the three indexes.

These changes in the employment profiles of concentration counties, as well as the reduced amenity advantages of congregation counties, probably reflect the increasingly diverse setting where elderly concentration is now underway, notably the increasing prevalence of concentration in metropolitan areas and in the Northeast and North Central regions. These changes also suggest that the previously strong link between certain types of economic specialization and elderly concentration may be diminishing.

SUMMARY

Elderly concentration became less widespread after 1970, but the settings where it occurred were structurally and economically more diverse than formerly. The structural diversity resulted largely from the changing prevalence of the three concentration processes, most notably a sharp decline in accumulation. The diversification of settings where concentration occurred, however, reflects basic transformations in migration patterns because all three types of concentration counties evidence those transformations.
V. THE CHANGING DETERMINANTS OF MIGRATION

Elderly concentration is a migration-induced process, so changes in its prevalence, location, and structural characteristics depend upon changes in migration behavior. Migration patterns did shift in several notable ways after 1970. First, the distribution of elderly and nonelderly net migration rates converged, largely because the migration pattern of the nonelderly became more geographically diffuse, resembling that of the elderly. Second, the target of migration shifted from the Northeast and North Central regions to the South and West. Finally, migrants began to favor smaller communities in every region. Each of these shifts represents a notable departure from a long-standing trend and raises the possibility that the criteria migrants use to decide where they will live may also have changed.

To examine this possibility and the extent to which it is reflected among the elderly as well as the nonelderly, this section analyzes the factors that have attracted migrants to individual counties and how their influences have changed since 1960.

OPPORTUNITY VS. CONSUMPTION-ORIENTED MIGRATION

Migration research has traditionally emphasized the pursuit of economic opportunity as the major underlying determinant of migration. The most fully articulated models in that tradition regard labor migration as an investment in human capital: Migrants move in anticipation of the employment and earnings benefits to be reaped at their destinations (DaVanzo, 1977; Greenwood, 1975). When applied to the migration decisions of the elderly, however, the human capital model (or more generally, any model stressing the role of job opportunities) makes little sense. Elderly migrants have most, if not all, of their working years behind them; they are the least likely to regard their moves as human capital “investments,” or to incur the disruptions and costs of moving in exchange for some long-run return. Elderly migrants are more likely to seek pleasant living environments and greater purchasing power than earnings and employment opportunities.

Because the factors that govern behavior of the elderly and nonelderly as consumers differ so markedly, distinctly different factors
should also influence their migration behavior. Elderly migrants, for example, should place a premium on climate and natural amenities in deciding where to move (Graves, 1979a and 1980); and because they are intensive consumers of health services (Special Committee on Aging, 1981), the elderly may be more concerned with the availability of medical care at a potential destination. The elderly also have, on average, incomes that still fall below those of the nonelderly despite recent relative increases (Pampel, 1979; Uhlenberg, 1977), and might be expected to weigh various locational attributes differently—for example, stressing the cost of housing rather than the quality of schools. Finally, living costs in different communities may well differ for the elderly and the nonelderly.¹

According to this interpretive framework, observed changes in migration patterns could result from changes in: (1) what migrants seek or can afford in prospective destinations—for example, particular types of jobs, distinctive amenities, services; or (2) what destinations offer—for example, living costs, degree of congestion, type of housing, and employment. The trend toward earlier retirement (which affords older adults a longer and more active period in life when they are no longer tied to a location by a job) may have heightened the demand for amenity-rich locations with ample opportunities for leisure-time activities. With higher relative incomes, the elderly may also be better able to afford preferred locational attributes. Alternatively, structural shifts in the national economy, which are redistributing employment growth, could change nonelderly migration flows, just as increases in local taxes to finance school construction or to provide other public services could increase local living costs without compensating benefits for those who do not use those services.

In short, several distinctive factors impinge on elderly migrants when they are regarded as consumption-oriented decisionmakers. The model set forth below for explaining elderly and nonelderly migration derives from the consumption-oriented perspective on migration.

A MODEL OF NET MIGRATION

The model assumes that when migrants decide on a destination, they consider the specific attributes of alternative locations and evaluate how well those attributes measure up against their preferences.

¹Prices in this context can be thought of in terms of both direct costs (e.g., differences in the costs of living) and indirect costs (e.g., crime, congestion, or forgone employment opportunities).
Subject to income and information constraints, migrants select the destination they believe offers the best combination of attributes, much as households choose homes based on the combination of attributes (e.g., size, location, layout, neighborhood) they offer. Four classes of variables categorize counties' locational attributes: (1) measures of economic opportunity, (2) indexes of climate and natural amenities, (3) local service and tax levels, and (4) structural and locational characteristics.

Measures of Economic Opportunity

In labor migration models, local employment opportunities and wage rates are the prime factors thought to attract working-age migrants. These factors usually are measured in terms of prevailing wage and unemployment rates or the growth of local employment and income (Alperovich et al., 1977; Cebula, 1980b; Cebula and Vedder, 1973; Graves, 1979a and b, 1980; Greenwood, 1975; and Renas and Kumar, 1978 and 1981). The model includes measures of both levels and changes in a county's employment and income patterns.

The way local employment and income are measured poses complex methodological problems (Greenwood, 1975). First, models that include income or employment levels measured at the end of the migration interval or changes during the interval cannot disentangle how economic conditions affect migration versus the reverse because migration within the interval can influence local economic conditions. To avoid this simultaneity problem, the model uses measures of employment and earnings levels at the beginning of the interval (e.g., 1960 measures for the 1960–1970 interval and 1970 measures for the 1970–1977 interval) and measures of employment and income change for the decade preceding the interval (e.g., 1950 to 1960 measures for the 1960–1970 interval and 1960 to 1970 measures for the 1970–1977 interval). Second, earnings should be measured in terms of real rather than nominal wages (Renas and Kumar, 1978). Because that was infeasible, the model used median family income as a proxy for wages. Additionally, an attempt was made to control for cost-of-living differentials by including a variable to measure differences in per capita property tax levels. That variable was not altogether satisfactory, however, and the coefficients of the income variables in the model may, as

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2Earnings could not be measured in real terms because (1) there are no consistent earnings measures for all counties for the period 1950 to 1977, and (2) the cost-of-living measures needed to transform nominal into real wages exist for only a few large metropolitan areas.
a result, have an unknown downward bias. Finally, the measures of employment and earnings are defined for counties of residence, although workers do not always live and work in the same county. To control for this commuting effect, the model includes a measure of the proportion of employed working outside their county of residence.

**Measures of Climate and Amenities**

Climate and natural amenities have received increasing attention in recent migration studies (Cebula, 1974; Gibson, 1969; Graves, 1979b and 1980; Liu, 1975; Rens and Kumar, 1978 and 1981; and Svart, 1976). They are included in the model for three reasons: (1) Differences in climate and natural amenities may partially account for nominal wage differences among counties, because a pleasant climate may compensate for lower wages; (2) rising incomes should increase the demand for leisure activities and residence in temperate or amenity-rich areas; and (3) elderly migrants, in particular, are predisposed toward temperate and amenity-rich areas (Barsby and Cox, 1975; Graves, 1979a). Consistent with these expectations, recent studies have found that amenity-rich recreation areas rank among the most rapidly growing (Beale and Fugitt, 1980; Heaton et al., 1981; McCarthy and Morrison, 1977).

The model includes three indexes of climate and one of amenities. The climate variables (January mean temperature, January mean sunlight hours, and July mean precipitation) were selected on the basis of a principal components analysis showing them to be the most important dimensions of intercounty variation in climate. The indicator of amenities is the percentage of a county’s area that is covered by water (which gauges the presence of lakes, bays, and rivers, hence the opportunities for water-related recreation).

**Measures of Local Services and Tax Levels**

Local service and tax levels are especially important to an explanation of elderly and nonelderly migration differentials at the local scale because these two groups differ substantially in their patterns of service usage (Goldstein, 1966). The elderly, for example, spend three times as much as the nonelderly on health care (Special Committee on Aging, 1981) and have quite distinctive housing and transportation needs (Sears, 1974; Struyk, 1977 and 1980). Indeed, federal data show government expenditures for services to the elderly to be three times higher than those for services to youths, the next most intensive
consumers of public services (Clark et al., 1978). Services that the elderly use infrequently (e.g., schools), moreover, may be especially important to the nonelderly. Furthermore, although the mix and level of public service in an area may attract the elderly and nonelderly differentially, the taxes necessary to pay for those services should have a countervailing effect—especially as differences in local tax levies are a major contributor to cost-of-living differentials across areas (Cebula, 1980a).

The model includes two measures of local service levels: (1) the number of medical doctors per 1000 population and (2) direct local government general expenditures per capita. The former affects net migration of the elderly and the total population (Cebula, 1974; Cebula and Vedder, 1973); the latter identifies how local government service levels affect migration.

The model also includes a measure of local taxes: the average property tax per capita. Although property taxes are not the sole source of local tax and cost-of-living differentials, they have several useful features for explaining migration. Although some states lack income or sales taxes, every state has a property tax; and it generally constitutes the largest portion of local government revenues. Furthermore, property taxes vary within states because local governments collect and administer them.

**Structural and Locational Characteristics**

The model includes three measures of a county's structural characteristics and a set of dummy variables designating the region in which the county lies. The structural measures are population density, population size (expressed in logarithmic form), and the proportion of resident workers who commute to jobs in another county. As noted earlier, the structural characteristics of counties figured prominently in their attractiveness to both elderly and nonelderly migrants before 1970 but less so thereafter. Including measures of those characteristics in the model permits gauging the extent to which those original effects, as well as changes in them, derive from the structure variables per se rather than from their economic and service correlates. The structure variables also may capture the effects of unmeasured locational attributes such as degree of congestion.

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3The dummy variables are coded 1 if the county is located in the region, otherwise 0. Only three of the four region variables can be included in the model for statistical reasons; the South dummy is omitted.
Finally, although the main interest in this study lies in the differences between elderly and nonelderly net migration rates, the regression results are necessarily restricted to comparisons of elderly and total net migration rates, because net migration rates (as well as the information to calculate those rates) are lacking for the nonelderly for 1970–1977. A comparison of 1960–1970 regression results for the total and nonelderly populations’ net migration rates showed only slight differences—no doubt because the elderly constituted only a small fraction of total migrants (Heaton et al., 1981).

Table 8 lists the variables used in the model, along with their means and standard deviations. These summary statistics reveal several points about the pattern of migration and economic change at the

Table 8

<table>
<thead>
<tr>
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<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>S.D.</td>
<td>Mean</td>
<td>S.D.</td>
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<tr>
<td><strong>Dependent</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Average annual total net migration rate/10,000</td>
<td>-64.7</td>
<td>155.0</td>
<td>57.6</td>
<td>140.2</td>
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<tr>
<td>Average annual elderly net migration rate/10,000</td>
<td>9.7</td>
<td>112.3</td>
<td>57.7</td>
<td>151.5</td>
</tr>
<tr>
<td><strong>Independent</strong></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Median family income ($)</td>
<td>4152</td>
<td>1326</td>
<td>7456</td>
<td>1852</td>
</tr>
<tr>
<td>Unemployment rate (%)</td>
<td>5.21</td>
<td>2.53</td>
<td>4.55</td>
<td>2.29</td>
</tr>
<tr>
<td>Prior decade change in median income (%)</td>
<td>89.6</td>
<td>60.0</td>
<td>86.7</td>
<td>28.3</td>
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<tr>
<td>Prior decade change in employment (%)</td>
<td>4.28</td>
<td>27.05</td>
<td>9.62</td>
<td>21.62</td>
</tr>
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<td>Mean daily temperature, January (°F)⁸</td>
<td>32.8</td>
<td>121.1</td>
<td>32.8</td>
<td>121.1</td>
</tr>
<tr>
<td>Mean sunlight hours, January (hrs/day)⁸</td>
<td>151.5</td>
<td>33.2</td>
<td>151.5</td>
<td>33.2</td>
</tr>
<tr>
<td>Mean precipitation, July (in/mo)⁸</td>
<td>3.67</td>
<td>1.68</td>
<td>3.67</td>
<td>1.68</td>
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<tr>
<td>Water area as % of total area</td>
<td>2.28</td>
<td>5.11</td>
<td>2.28</td>
<td>5.11</td>
</tr>
<tr>
<td>N.Ds per 1,000 population</td>
<td>.65</td>
<td>.51</td>
<td>.64</td>
<td>.63</td>
</tr>
<tr>
<td>Local government direct general expenditures/capita (1962)</td>
<td>183.9</td>
<td>82.2</td>
<td>404.3</td>
<td>198.5</td>
</tr>
<tr>
<td>Local government property taxes/capita (1972)</td>
<td>81.7</td>
<td>54.2</td>
<td>157.9</td>
<td>106.2</td>
</tr>
<tr>
<td>In total population</td>
<td>9.93</td>
<td>1.23</td>
<td>9.97</td>
<td>1.30</td>
</tr>
<tr>
<td>Population/square mile</td>
<td>180.0</td>
<td>1809.4</td>
<td>190.0</td>
<td>1722.0</td>
</tr>
<tr>
<td>Working outside county (%)</td>
<td>13.0</td>
<td>11.1</td>
<td>18.2</td>
<td>13.6</td>
</tr>
<tr>
<td>Northeast (0,1)</td>
<td>.071</td>
<td>.247</td>
<td>.071</td>
<td>.257</td>
</tr>
<tr>
<td>North Central (0,1)</td>
<td>.345</td>
<td>.476</td>
<td>.345</td>
<td>.476</td>
</tr>
<tr>
<td>West (0,1)</td>
<td>.134</td>
<td>.341</td>
<td>.134</td>
<td>.341</td>
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</table>

⁸Averages based on data from 1941 to 1970.
county level since 1960. First, substantial variation remains in migration patterns nationwide, even though many more counties have experienced a net inflow of both elderly and nonelderly migrants since 1970 (reflected by the increasing means of the two dependent variables). In both decades, the standard deviations of both migration rates, for example, are considerably larger than their means. Indeed, for elderly migration rates, the standard deviation has increased since 1970, indicating that there is actually more variation in elderly net migration at the county level than before. This finding suggests that elderly migrants may have become more selective in their choice of destinations since 1970. Second, before 1970, the nation had experienced two decades of sustained economic growth. Median family incomes, for example, increased, on average, 90 percent during the 1950s and 85 percent during the 1960s, while unemployment rates were declining from 5.2 to 4.6 percent.4 Since 1970, by contrast, economic growth has been far less even. For example, although 1980 county averages for these measures are not yet available, median family income nationally rose only 7 percent in constant dollars during the entire 1970s, and the unemployment rate climbed from 4.9 to 7.1 percent (U.S. Bureau of the Census, 1981c). Finally, throughout the 1960s and at least the mid-1970s, local government expenditures per capita rose sharply—for example, from $184 to $404 between 1960 and 1970—and local property taxes per capita climbed from $82 to $158.

**EMPIRICAL RESULTS**

**Total Migration**

The results of the total population net migration rate equation are reported in Table 9. The coefficients for each variable are unstandardized coefficients and as such indicate the relative importance of that variable in each of the two time periods, with the other variables controlled. It is thus possible to judge each factor’s comparative influence, net of the influence of other variables, and how its role has changed since 1970. Consistent with the previous tabular data, these multivariate results highlight the important shifts that have occurred in the migration patterns of the nonelderly since 1970. These changes include a decided shift in the dominant economic factors attracting

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4Nationwide, median family incomes increased 69 percent during the 1950s and 76 percent during the 1960s in current dollars and 38 and 39 percent in constant dollars (U.S. Bureau of the Census, 1961b).
Table 9

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<tr>
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<tr>
<td></td>
<td>Coefficient</td>
<td>t</td>
</tr>
<tr>
<td><strong>Economic</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Median family income</td>
<td>.30</td>
<td>.83</td>
</tr>
<tr>
<td>Percent income change</td>
<td>.09</td>
<td>2.29^a</td>
</tr>
<tr>
<td>Unemployment rate</td>
<td>-4.59</td>
<td>4.50^a</td>
</tr>
<tr>
<td>Percent employment growth</td>
<td>1.74</td>
<td>14.28^a</td>
</tr>
<tr>
<td><strong>Climate</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean daily temperature, January</td>
<td>1.98</td>
<td>6.18^a</td>
</tr>
<tr>
<td>Mean sunlight hours, January</td>
<td>- .57</td>
<td>4.44^a</td>
</tr>
<tr>
<td>Mean precipitation, July</td>
<td>-  .50</td>
<td>.26</td>
</tr>
<tr>
<td>Square root percent water</td>
<td>15.43</td>
<td>7.39^a</td>
</tr>
<tr>
<td><strong>Services</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MDs per 1000 population</td>
<td>47.49</td>
<td>8.45^a</td>
</tr>
<tr>
<td>Government expenditures/capita</td>
<td>.27</td>
<td>5.28^a</td>
</tr>
<tr>
<td>Property taxes/capita</td>
<td>-.53</td>
<td>5.96^a</td>
</tr>
<tr>
<td><strong>Structure</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ln total population</td>
<td>6.49</td>
<td>2.13^a</td>
</tr>
<tr>
<td>Density</td>
<td>-.02</td>
<td>8.26^a</td>
</tr>
<tr>
<td>Percent commuting</td>
<td>3.68</td>
<td>15.15^a</td>
</tr>
<tr>
<td>Northeast</td>
<td>62.92</td>
<td>5.31^a</td>
</tr>
<tr>
<td>North Central</td>
<td>58.57</td>
<td>6.82^a</td>
</tr>
<tr>
<td>West</td>
<td>36.49</td>
<td>3.27^a</td>
</tr>
<tr>
<td><strong>Constant</strong></td>
<td>269.4</td>
<td>8.00^a</td>
</tr>
</tbody>
</table>

| R^2                   | .363       | .329 |
| F                     | 99.5       | 88.2 |

^aSignificant at .05 level.

nonelderly migrants, the reduced importance of climate in migrants' location choices, and the changing attractiveness of specific structural factors for nonelderly migrants.

Perhaps the most important of these is the decided change in the particular economic characteristics that attract nonelderly migrants. Before 1970, nonelderly migrants were drawn to county labor markets with low unemployment rates and rapid rates of income and employment growth—a pattern consistent with the traditional models of labor
force migration. Since 1970, however, the role of economic factors in attracting nonelderly migrants has become more complex. Although rapidly growing labor markets have continued to attract migrants, neither high income levels nor above-average income growth have been able to sustain their attraction for nonelderly migrants. This shift may reflect a basic transformation in the process of nonelderly migration or the fact that above-average income growth no longer guarantees increased economic well-being in a period of rapid price inflation.\(^5\)

Whatever their source, these results suggest why nonelderly migrants may no longer be attracted to large metropolitan centers in the Northeastern industrial belt: Although those counties have always been high-wage areas, their employment growth has more recently lagged behind areas in the rest of the country (Sternlieb and Hughes, 1975).

The attractive power of pleasant climates and natural amenities also appears to have diminished since 1970. Before 1970, for example, counties that enjoyed temperate winter climates (e.g., Florida and California) attracted nonelderly migrants, and counties experiencing warm but dry winter weather (e.g., much of the Southwest) were not particularly successful in attracting them. Since 1970, however, the importance of these climate measures seems to have diminished. Similarly, although nonelderly migrants were clearly drawn to counties with a ready access to water (and presumably access to waterfront living and recreation) before 1970, such counties were decidedly less successful in attracting them thereafter. For example, the January temperature measure is not significant in the 1970–1977 equation, and the coefficients of both the sunlight and water variables are decidedly smaller in the latter period.

One obvious factor contributing to these changes has been the increased availability and use of air conditioning, which has weakened the influence of climate as a factor limiting economic development.\(^6\) Another factor that may have contributed to this finding is the slow rate of real income growth during the 1970s. Insofar as the demand for such location-specific attributes as a pleasant climate and natural amenities increases with income, that demand will stabilize or decline in a period of stable or declining incomes. Graves (1979a), for

\(^5\)The consumer price index increased 110 percent during the 1970s, three times more than during the 1960s and almost five times faster than during the 1950s (U.S. Bureau of the Census, 1980). Such rapid inflation may have more than offset rising nominal incomes, especially if the rate of price inflation was directly related to income levels at the beginning of the decade.

\(^6\)Between 1970 and 1980, for example, the proportion of housing units with air conditioning increased from 36 to 55 percent nationwide (Young and Devaney, 1982).
example, attributes the apparent increasing attraction of nonelderly migrants to pleasant climates between 1960 and 1970 to the rapid rise in real incomes during that period.  

Although the importance of economic and climate measures shifted during the 1970s, the influence of local service levels changed very little over that period. During both the 1960s and the 1970s, nonelderly migrants were attracted to areas with better medical facilities and more generous local governments. However, the higher local property tax payments that are often associated with higher service levels appeared not to discourage nonelderly migrants during the 1960s (the property tax measure was positively related to nonelderly migration rates before 1970) but had a more mixed effect thereafter.

The property tax measures were included in the model to capture the effect of cost-of-living differentials on migration patterns, so nonelderly migrants may have become less sensitive to price differentials in deciding where to live after 1970. However, there may well be another explanation. Specifically, the property tax measure may no longer be an accurate indicator of cost-of-living differences after 1970. For example, local government expenditures per capita rose considerably faster than property taxes between the 1960s and the 1970s. This shift, produced by the rapid rise in intergovernmental transfers accompanying the introduction of revenue sharing programs, resulted in a sharp decline in the share of local government revenues derived from local property taxes (Sullivan et al., 1981) and may well have reduced the correlation between local tax levels and living costs. Indeed, the strong negative effect of the two income variables on net migration subsequent to 1970 may in part be because they are now capturing part of this cost-of-living effect.

After allowing for differences in the economic conditions, climate, and local service levels among counties, structural factors still influenced how attractive a county is for nonelderly migrants, although the nature of those effects has shifted sharply. Before 1970, counties attracting nonelderly migrants were distinguished by at least one of the following characteristics: a substantial but thinly settled population, easy commuting access to major employment centers, and a non-South location. Since 1970, the attractive power of two of these factors has changed markedly. Currently, nonelderly migrants are leaving large population centers and moving to smaller places. In addition,

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7 The real incomes of American families increased at an average annual rate of three percent during the 1960s (U.S. Bureau of the Census, 1981b). During the entire 1970-1977 period, however, median family income increased less than 4 percent in real terms.
Southern counties are no longer at a disadvantage in competing for nonelderly migrants with North Central counties and only at a slight disadvantage with Northeastern counties. The differential between Southern and Western counties, however, remains unchanged.

These shifts in the desirability of structural factors for working-age migrants suggest fundamental changes in the traditional attractiveness of population agglomeration along with newly emergent locational preferences by nonelderly migrants—changes consistent with recent developments in American society. One such development has been the improvements in transportation and communication that have diminished the importance of location and population size in determining a county's access to national economic, social, and cultural opportunities. With distance a weakening constraint on locational choices, migrants are now free to settle in places separated but not isolated from the economic and social advantages of large urban centers. A second development has been the increasing concern among working-age migrants with amenity-rich locations, which has intensified the demand for types of environments that smaller communities can offer. The negative coefficient of the density variable, for example, suggests the disamenities commonly associated with large, densely settled urban centers—congestion, high crime rates, pollution, etc. Third, structural shifts in the national economy have produced an expansion of the service sector and a contraction in the growth of manufacturing and primary employment and have reduced the traditional importance of scale economies that dictated the agglomeration of population and industry in large metropolitan centers. Finally, as noted above, the introduction and diffusion of new technologies such as air conditioning have reduced the importance of environmental constraints on economic development.

To the extent these various factors have reduced the traditional constraints on working-age migrants' locational choices and altered the costs and benefits of living in particular areas, they will also have reshaped the factors that have traditionally attracted nonelderly migrants to large metropolitan centers. Overall, they have resulted in a more complex pattern of migration in which some traditionally important locational attributes no longer retain their attractive power for nonelderly migrants.
Elderly Migration

Table 10 shows the results of the regression analysis for elderly net migration rates. The societal changes that occurred during the 1970s apparently had very different effects on the locational choices of the elderly and the nonelderly. These differences are most pronounced in the attraction structural factors exerted on migration choices but are also evident in the changing role of climate and economic factors in migration decisions. Together these changes have reshaped the

Table 10

<table>
<thead>
<tr>
<th>Independent Variables</th>
<th>1960-1970</th>
<th>Coefficient</th>
<th>t</th>
<th>1970-1977</th>
<th>Coefficient</th>
<th>t</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Economic</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Median family income</td>
<td>-3.76</td>
<td>13.95</td>
<td>18.47</td>
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</tr>
<tr>
<td>Percent income change</td>
<td>.01</td>
<td>.25</td>
<td>.26</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unemployment rate</td>
<td>-2.85</td>
<td>3.71</td>
<td>4.60</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Percent employment growth</td>
<td>1.75</td>
<td>19.02</td>
<td>22.49</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Climate</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean daily temperature, January</td>
<td>1.80</td>
<td>7.58</td>
<td>7.22</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean sunlight hours, January</td>
<td>.04</td>
<td>.18</td>
<td>2.13</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean precipitation, July</td>
<td>-.71</td>
<td>4.82</td>
<td>3.87</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Square root percent water</td>
<td>15.02</td>
<td>9.56</td>
<td>9.00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Services</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MDs per 1000 population</td>
<td>23.16</td>
<td>5.45</td>
<td>4.41</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Government expenditures/capita</td>
<td>.30</td>
<td>.63</td>
<td>3.14</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Property taxes/capita</td>
<td>-.18</td>
<td>2.78</td>
<td>1.65</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Structure</strong></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Ln total population</td>
<td>3.44</td>
<td>1.54</td>
<td>10.30</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Density</td>
<td>-.02</td>
<td>10.74</td>
<td>7.08</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Percent commuting</td>
<td>.90</td>
<td>5.04</td>
<td>3.78</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Northeast</td>
<td>19.52</td>
<td>2.20</td>
<td>8.22</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>North Central</td>
<td>41.32</td>
<td>6.60</td>
<td>15.04</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>West</td>
<td>4.27</td>
<td>.51</td>
<td>6.26</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Constant</strong></td>
<td>6.64</td>
<td>.26</td>
<td>-74.30</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>( \text{R}^2 )</td>
<td>.262</td>
<td></td>
<td>.297</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>( \text{F} )</td>
<td>63.4</td>
<td></td>
<td>74.8</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

\(^a\)Significant at .05 level.
traditional geography of elderly concentration and, in the process, reversed long-standing patterns that attracted younger migrants to major population centers while leaving large numbers of elderly behind in more thinly settled areas.

The differing responses of the elderly and nonelderly to county structural features are evidenced by nonelderly migrants moving from larger to smaller areas, while elderly migrants were moving in the reverse direction. Before 1970, for example, a county’s size had very little effect on its elderly net migration rate. Although elderly migrants tended to move toward larger counties, many sparsely settled counties were apparently able to retain their elderly residents. Since 1970, however, elderly migrants have moved with much greater frequency to larger communities.

The reduced attractiveness of smaller counties was not the only change that occurred in the structural correlates of elderly migration after 1970. When elderly migrants did move during the 1960s, they tended to settle in counties within commuting range of employment centers; after 1970 they no longer did. Thus, the level of commuting in a county is now negatively related to its elderly net migration rate. Finally, regional differences in elderly migration patterns have become far more pronounced since 1970 as the South’s attraction as a potential destination for elderly migrants has greatly declined. This shift, also evident in the earlier comparison of congregation counties, suggests that retirees who once would have migrated to the South are now increasingly favoring other regions.

These shifts probably reflect the new locational flexibility that older Americans now enjoy as a result of earlier retirement and rising incomes. As more elderly persons find themselves assured of an adequate income regardless of where they live, many are now leaving the rural counties in which their predecessors accumulated during the 1960s and moving to larger communities. This shift is not directed so much toward large metropolitan areas—indeed, the rapid increase in elderly concentration in the largest metropolitan centers is more a product of younger residents leaving than elderly migrants moving in—as it is toward larger nonmetropolitan and smaller metropolitan places. Moreover, with the trend toward earlier retirement, older adults can expect a longer and more active period after their full-time working years are over. As a result, they can afford to consider a wider range of alternative destinations, including amenity-rich areas in the North, East, and West, as well as the traditional retirement areas of the South.
The trends toward earlier retirement and rising relative incomes may also have contributed to the tendency of elderly migrants to avoid high-income (and presumably high-priced) counties in both decades. Indeed, this effect intensified after 1970, as is reflected by the larger negative coefficient on the family income variable and the significant negative coefficient on the income change variable.

Although elderly migrants have clearly shunned high-income areas, they have not been flocking to areas that can be described as distressed. Rather, the areas attracting elderly migrants are notable in both decades for their low levels of unemployment and rapid employment growth. This finding is less likely to reflect the attraction employment opportunities hold for the elderly than the selective character of their migration. As Biggar (1980) and Longino and Biggar (1982) have pointed out, elderly migrants are considerably more affluent than elderly nonmigrants. Thus, those elderly who have the means to move away from distressed areas do so. Moreover, being more affluent than nonmigrants, elderly migrants provide an added economic stimulus to the localities where they settle because they increase the demand for local retail, housing, and recreational services without competing for jobs.

That each of these economic effects appears stronger after 1970 could well reflect the fact that the trends toward higher incomes and earlier retirement also intensified after 1970. Together, then, these two trends have expanded the number of older Americans who possess both the opportunity and the financial means to migrate wherever they choose. Moreover, rapid price inflation during the 1970s may also have increased their sensitivity to geographic differences in living costs when deciding where they will settle.

The growing influence of climate and natural amenities on elderly migrants' locational choices may also reflect the increased geographic flexibility they enjoy by virtue of their changing work and income patterns. In contrast to the 1960s, for example, all four of these variables now significantly affect the elderly's destination choices, and three of the coefficients are substantially larger. As one might expect, as the income of the elderly has risen, so has their ability to purchase a more pleasant living environment. Similarly, earlier retirements reduce the opportunity costs (in the form of lower wages), which otherwise might have operated against such consumption-oriented migration. If these opportunity costs have changed differently for the elderly and the nonelderly, such differences would help to explain why the importance of climate appears to have increased for elderly migrants but diminished for nonelderly migrants.
Differences in incomes and opportunity costs, however, cannot fully explain why climate plays a different role in the migration of the elderly and the nonelderly, since the preferred climates of the two age groups appear to differ. For example, both are attracted to areas where winters are mild, but only the elderly are drawn to drier climates in both summer and winter. This difference could, of course, reflect the much greater importance the elderly attach to health considerations in choosing where to live. In any case, elderly and nonelderly migrants do not necessarily choose the same types of destinations when moving to what they consider to be more pleasant climates.

In contrast to the differences between elderly and nonelderly migrants on structural, climate, and economic dimensions, these two age groups respond in very similar ways to local public sector measures. For example, both groups were drawn to counties with better medical facilities and higher public service levels both before and after 1970. They also shunned those counties with higher property taxes in the 1960s, although the property tax effect was insignificant for both during the 1970s. Given these similarities, it is unlikely that local service levels per se could explain the changes in either elderly or nonelderly migration since 1970.

SUMMARY

These regression results provide insights into the possible factors underlying recent changes in elderly and nonelderly migration. However, they do not offer a complete explanation, because the model explains only about one-third of the variation in county net migration rates. The model’s performance could no doubt be improved if some of the constraints imposed on this analysis were relaxed. For example, because this study was interested in analyzing how elderly and nonelderly migrants responded to the same locational attributes over time, the model included only those variables that were available for both time periods; some potentially relevant factors (e.g., crime statistics, air pollution indexes, hospital beds per capita, welfare recipiency rates) unavailable for the earlier period were therefore ruled out. Similarly,

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6The insignificance of the property tax variable probably reflects the fact that this variable may not be a good measure of cost-of-living differentials during the 1970s.

7The R² for these regressions are similar to those of other recent models of migration at the county level (Graves, 1979a and 1979b; Heaton et al., 1981), although they are not as high as in models analyzing migration for metropolitan areas (Cebula and Vedder, 1973; Graves, 1980; Renas and Kumar, 1978). Such differences reflect the greater availability of detailed data for metropolitan areas as well as the different samples and measurement techniques used in various models.
because up-to-date information on income and employment was lacking, income and employment were measured over the previous decade, rather than concurrently with migration using a simultaneous equation approach as suggested by Greenwood (1972). Finally, with counties as the unit of analysis, it was not possible to use the better measures of locational attributes (e.g., cost-of-living indicators, generalized access to employment) that are available at higher geographic scales.

Although such modifications could well improve the model's fit, a more basic reason for the model's performance may well be the changing determinants of both elderly and nonelderly migration, in particular the increasing importance of quality of life factors. Recent studies indicate, for example, that when applied to comparative cross-sections the explanatory power of similar migration models declines for the most recent interval (Burns, 1982; Heaton et al., 1981). A major reason for this finding appears to be the declining importance of the traditional economic correlates of migration and the growing importance of quality-of-life considerations that are difficult to measure (Beale, 1977; Porell, 1982; Williams and Sofranko, 1979).
VI. SUMMARY AND CONCLUSIONS

Changes in the migration patterns of both America’s elderly and nonelderly have altered the geographic distribution of the elderly in several noteworthy ways:

- The concentration of elderly persons has become more geographically focused. Whereas nearly three-fifths of the nation’s counties experienced elderly concentration before 1970, only slightly over one-third did thereafter.
- Paradoxically, more of the nation’s elderly are concentrating in fewer places. The fraction of the nation’s over-65 population living in concentration counties has increased from 27 to 50 percent.
- Underlying these shifts are changes in the types of counties where elderly concentration is underway. Elderly concentration has changed from being a predominantly nonmetropolitan phenomenon, most often typical of thinly settled rural counties, to a metropolitan one that is especially prevalent in core counties of large metropolitan areas.

Coincident with these geographic changes, the migration dynamics underlying elderly concentration have shifted:

- Accumulation and recomposition have become less prevalent forms of elderly concentration since 1970. Far less often are the elderly being left behind in counties that younger working-age migrants are leaving.
- Congregation, however, in which the elderly predominate because their migration swamps that of the nonelderly, has become far more frequent since 1970.
- Thus, concentration has changed from a process in which the elderly are being passively left behind in an area to a process driven by the elderly actively seeking a desired destination.

These shifts in the patterns and processes of elderly concentration reflect new patterns of locational choice on the part of the elderly and the nonelderly alike that have emerged since 1970. Elderly migration patterns have changed in several noteworthy ways. First, they have become more consumption oriented as elderly migrants supported by higher incomes and a longer, more active period of retirement have
responded in greater numbers to the attractions of climate and natural amenities. Second, elderly migrants have begun to favor larger towns and cities over small, sparsely settled counties. Finally, offered the prospect of a longer, more active period of retirement and a more substantial and secure income regardless of where they live, they have become more concentrated outside the South.

Nonelderly migration patterns have changed as well, often in just the opposite way. For example, the nonelderly are moving out of the larger population centers (which the elderly are favoring) and to Southern locations (to which elderly migrants are no longer disproportionately drawn). Finally, pleasant climates per se no longer guarantee the rapid immigration of working-age migrants, notwithstanding popular images of sunbelt migration. The movement of the nonelderly to the sunbelt appears, rather, to be tied to the rapid expansion of job opportunities there, coupled with widespread use of air conditioning.

Although conclusive evidence is lacking as to why these contrasting migration shifts have occurred, two distinct trends have weakened the traditional constraints on elderly and nonelderly locational choices. First, an increasing fraction of the elderly appear to be enjoying the locational flexibility offered by higher incomes and earlier retirement. In combination, these two factors provide the elderly with an adequate income regardless of where they choose to live and guarantee them a longer and more active period of retirement than their predecessors. Second, the migration patterns of the nonelderly, by contrast, are best explained in terms of the reduced importance of population agglomeration and environmental constraints on economic development and employment.

Although these general trends have increased the flexibility of migration decisions for all ages, they also obscure some important features of the changing geographic distribution of the elderly. For example, although accumulation and recomposition have become less prevalent forms of concentration since 1970, the proportion of the nation's elderly living in such areas has risen from 21 to 30 percent, as elderly concentration has shifted from nonmetropolitan to smaller metropolitan areas. However, the traditional losers of nonelderly residents, accumulation and recomposition counties, have registered no

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1The recent decline of the largest metropolitan areas together with the resurgence of nonmetropolitan growth have created a similar paradox for the total population: A declining number of the nation's counties are now losing population, but an increasing share of the total population is now living in areas that are losing residents (Long and DeAre, 1982).
improvement in a key dimension of economic vitality—total employment growth.

The implications of these transformations for the delivery of service to the elderly depend heavily on the selectivity of elderly migration—that is, on the difference between elderly migrants and nonmigrants and between the characteristics of immigrants to one or another type of destination. Among the elderly as a whole, migrants tend to be younger and better educated and are more likely to be married and to enjoy higher incomes than nonmigrants (Biggar, 1980; Biggar et al., 1980; Longino and Biggar, 1981). Much less is known about how or to what degree particular types of migrants select particular types of destinations, although there is some evidence of such selectivity (Longino and Biggar, 1982). For example, immigrants to Florida were more likely to be married, to own their homes, and to be living independently than immigrants to California (Longino and Biggar, 1982). In contrast, elderly migrants from both of these amenity-rich states tend to be older, poorer, and more residentially dependent than immigrants (Longino, 1979)—perhaps because amenity-oriented migration to these areas is followed by dependency-dominated return migration in old age. These and other aspects of selectivity have an important bearing on the service needs of the elderly residents and newcomers to an area, but the research evidence on this point is sparse.

Given incomplete knowledge of these issues, the implications that can be drawn must remain necessarily tentative. One point is clear: The service needs of the elderly and the modes of delivery suited to those needs will differ markedly between accumulation and congregation counties. The contrasting characteristics of the types of elderly residing in these two different types of counties have different implications for the service delivery process.

- First, as elderly concentration shifts from small, sparsely settled rural communities toward urban centers, the delivery systems will have to shift from those targeted toward the isolated and impoverished rural elderly to systems aimed at the elderly urban poor.
- Second, with the increasing concentration of elderly in large metropolitan areas, the needy elderly in such areas will increasingly be in competition with a broad array of other needy groups for governmental assistance. If current circumstances are a reasonable guide, these other needy groups are likely to be more aggressive in their pursuit of assistance.
- Third, with the advent of reduced federal aid and local fiscal constraints, those areas in which the elderly have been left
behind will face shrinking resources with which to meet both the elderly and the nonelderly poor's needs.

Congregation counties, by contrast, tend to be areas of rapid employment growth, and the elderly migrants to such areas are typically more affluent than the elderly residents they join. As a result, their arrival perpetuates growth and reduces rather than increases the need for special assistance. Because the needs of the elderly in such areas are more often than not paid for by the elderly themselves, their presence is by itself not a sufficient sign of distress. Indeed, given the economic boost that elderly migrants provide to such counties, it is reasonable to assume that their contribution to the local economies will provide sufficient incentive to adapt and to satisfy the elderly's service needs without any special assistance from either state or federal governments. This finding corroborates those of Lee (1980), that the elderly's health care needs are best served in areas with a rapid increase in elderly migrants.

A broader question raised by the findings—and one with direct relevance to government policy—is how permanent these results will prove to be. For example, if the greater locational flexibility enjoyed by the elderly since 1970 reflects their higher relative incomes and earlier retirements, a major uncertainty looming on the horizon is whether and how contemporary patterns of elderly concentration might change in the future. For example, how would prospective future cutbacks in Social Security benefits, a major source of the elderly's locational freedom, affect the patterns of elderly concentration? Is the trend toward earlier retirement likely to continue given developing financial strains on the Social Security system and the prospect of labor shortages by the 1990s (Butz et al., 1982)?

Finally, what appears to be a substantial general improvement in the elderly's economic position may obscure the problems of those who have not shared in that trend. Not all elderly, for example, have participated in the benefits of indexed Social Security payments and the widespread expansion of private pension coverage. Moreover, as the size of the elderly population swells, it does so unevenly. Specifically, the growth among the elderly population has been and will continue to be most rapid among those over 75. This group is predominantly female and poor (U.S. Bureau of the Census, 1982) and thus least likely to have shared in the improvements that have benefited the elderly as a whole. Even if the financial status of the very old improves, will they be interested in amenity migration?

In light of these uncertainties, it would be premature to draw specific conclusions from these results about policies or programs for
local and federal governments. Nonetheless, some general guidelines seem appropriate. First, social service programs for the elderly should not be targeted simplistically on the basis of how rapidly the elderly population in an area is increasing. A more sophisticated approach, based on more detailed measures, will be required. The process of elderly concentration occurs in different ways in different places, and the characteristics of the elderly living in a specific locality are likely to reflect such differences. Second, although elderly migration rates may well have increased during the 1970s, a major reason for the changing spatial pattern of the elderly has been the changing patterns of nonelderly migration. If nonelderly migration patterns, which changed so dramatically during the 1970s, should change again, then so could the patterns of elderly concentration.

Finally, local population change has always been a highly volatile process. As a result, state and local agencies are continually confronted with a changing environment. To the extent that such changes can be accurately monitored—including the migration dynamics that give rise to such changes, then the task of local and state agencies may become more rational. As recent reductions in federal aid and intervention in local affairs begin to be felt at the local level, communities will begin to feel both the advantages and the added responsibilities that such changes entail. Correspondingly, state and local agencies responsible for the elderly will need to depend more heavily on their own resources to determine how their limited resources will be spent. Central to this process will be the ability to make timely and accurate determination of where and how the elderly are concentrating.
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