New and Returning Teachers in Indiana

The Role of the Beginning Teacher Internship Program

Lisa Hudson, David W. Grissmer, Sheila Nataraj Kirby
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PREFACE

This report is one of a series of studies of teacher supply and demand in Indiana. The objectives of the studies are to assess the current status of teacher supply and demand in Indiana, to determine and recommend policies to ensure an adequate supply of certified teachers, and to provide the capability to monitor and perform future assessments of teacher supply and demand. The analyses were undertaken as part of a larger study of teacher supply and demand in Indiana funded by Lilly Endowment Inc.

The reports use both historical personnel data and a survey of teachers hired in 1988–89 that was fielded during May–June 1989. The present report analyzes Indiana's Beginning Teacher Internship Program and its effects on new hires' satisfaction with teaching and plans to remain in teaching, using data from the new teacher survey. Other reports in this series address the attrition rates of teachers (Grissmer and Kirby, 1991) and the sources of teacher supply (Kirby, Grissmer, and Hudson, 1991). The results presented here should be of interest to educators and educational policymakers concerned with issues of teacher supply and demand in general and with the development and implementation of teacher induction programs.
SUMMARY

Two objectives of recent educational reforms are to improve the quality and skills of entering teachers and to reduce the attrition of quality teachers in their early years. Teacher induction programs attempt to address both goals. They seek to promote the skill development and proficiency of beginning teachers, increase the retention of qualified teachers, and screen new teachers for full licensing and entry into the profession. In this report, we evaluate one newly developed teacher induction program—Indiana’s Beginning Teacher Internship Program.

THE ROLE OF TEACHER INDUCTION PROGRAMS

Attrition rates for teachers are highest in the early years of teaching. Data for Indiana indicate that approximately 40 percent of beginning teachers will not be teaching in Indiana after five years. Teachers in their first and second year of teaching have the highest attrition rates; in recent years, first-year attrition rates have been between 10 and 16 percent. Although some exiting teachers will teach in other states, others will simply leave teaching.

One factor contributing to early attrition is that new teachers are not formally inducted into professional practice. The transition from student of teaching to independent, fully functioning practitioner is neither simple nor straightforward; many important teaching skills can be acquired only through actual practice. However, the structure of teaching does not support teachers in their efforts to learn their profession during the initial year; beginning teachers are typically left to sink or swim. Teacher induction programs were designed to address these problems by providing the novice practitioner with the opportunity to develop and practice teaching skills under the supervision and guidance of an experienced colleague.

Teacher induction programs can take many forms, ranging from special teacher induction schools that use selected experienced teachers and special facilities to supervise and assist beginning teachers to pairing new teachers with experienced supervising teachers, assigning each pair to a single classroom. The most common model, however, is the mentor program. In this model, both new and supervising (mentor) teachers have full and separate classroom responsibilities, but the mentor teacher is given the additional responsibility to periodically observe the novice and to provide teaching guidance and sup-
port. This provides less formal or intensive induction than that provided by other induction models; however, a mentor program is much less expensive because classrooms do not have to be double-staffed. This report analyzes one such program—a mentor program in Indiana.

STUDY OBJECTIVES

This study has as its primary focus the mentor program implemented in Indiana in the 1988–89 school year. Its primary objectives are to determine the effects of the program on the teaching experiences of new teachers and their plans to remain in teaching. This study was carried out in the context of a more comprehensive study of teacher supply and demand and the potential for teacher shortages in Indiana. The mentor program evaluation was an important part of this study because it had the potential to affect the attrition rates of teachers during their early careers.

Since our primary focus was on the program’s impact on attrition, this evaluation is not intended to be a complete program evaluation. A complete evaluation would involve collecting data from other major program participants (mentor teachers and school principals) and assessing the degree to which teaching skills were improved and actual retention affected by the program.

THE INDIANA BEGINNING TEACHER INTERNSHIP PROGRAM

The Indiana Beginning Teacher Internship Program was established as part of a larger educational reform package passed by the state legislature in 1987. The 1988–89 school year, the year of our study, was the first year the internship program was implemented. The program requires that all new teachers serve a one-year internship if they received their state teaching certificate after March 31, 1988, unless they have at least two years of teaching experience in an accredited out-of-state school. During the internship, both the novice and mentor teachers work as regular teachers with full classroom responsibilities. The mentor teacher receives a $600 stipend for providing the novice with assistance and support. The school principal also observes and evaluates the beginning teacher using a state-developed instrument that assesses minimal teaching competency. The specific procedures for providing assistance and assessment are developed by each school district, using general program regulations established by the state.
The internship program is fairly inexpensive, costing only about $1.2 million per year in an annual state education budget of over $3 billion. The major program costs are mentor training and stipends. Beginning in 1989–90, the state also provides funds for five release days per beginning teacher, which are used for mentor observation of the beginning teacher, or for beginning teacher observation of the mentor or other teachers.

The internship program goals focus on the following three areas: (1) providing a psychological and social support structure for beginning teachers, (2) providing the knowledge and assistance beginning teachers need to become effective teachers, and (3) increasing the likelihood that the beginning teacher will remain in teaching. In this study we were able to obtain measures from survey self-reports for each goal. These include measures of the time spent with mentors, measures of the compatibility of mentor and beginning teacher, the efficacy of the mentor’s advice as well as overall job satisfaction, and program evaluation measures. In addition we learned teachers’ plans for teaching next year and over the next five years.

Since this was a program in its first year of implementation, we also obtained measures of the degree to which the program was fully implemented. We felt it important to distinguish between those cases where lags in full implementation may have caused poor responses and cases where the program itself failed to produce positive results.

ANALYSIS DESIGN

Data were collected on the internship program as part of a survey of newly hired teachers in Indiana public schools in 1988–89. The survey was administered in May 1989 to the approximately 3,000 Indiana teachers who had taught full-time in 1988–89 but who had not taught full-time in Indiana in the previous year. The survey provided data from 1,660 new, transferring, or returning teachers. Of those surveyed, 515 newly hired teachers were participants in the internship program. This constitutes one of the largest samples of internship program participants ever subjected to research.

To measure the effects of the program we constructed a control group from inexperienced teachers who were not in the program. These nonparticipants differed from the participant sample in having obtained their certification before March 1988. We controlled for this difference statistically to determine if program participants had more positive attitudes toward their first year in teaching and if the program affected their plans to teach in the next year and in five years.
PROGRAM IMPLEMENTATION AND RATINGS

The first year of the internship program went quite well. Most mentor teachers and school principals fulfilled their program roles as expected, and the beginning teachers expressed a high degree of satisfaction with almost all aspects of the program, including the amount of time they spent with their mentors, the appropriateness of their assigned mentor, and the amount of time devoted to various program activities.

Beginning teachers were also satisfied with aspects of both the mentors' and principals' roles, including the evaluation process—a program component that has caused serious problems with many other reform initiatives. For instance, 87 percent of beginning teachers were observed at least once by mentors, and 50 percent were observed three or more times. Ninety-seven percent of beginning teachers were observed by their principal at least once, and 60 percent were observed three or more times. Approximately 90 percent of beginning teachers were satisfied with the choice of their mentor, over 84 percent were satisfied with the availability of the mentor, and over 70 percent were satisfied with the amount of time mentors spent with them. Over 85 percent of beginning teachers also found the assistance provided by mentors useful. This included help with instructional problems, classroom management, and acclimatization to the school environment. Finally, about 80 percent of beginning teachers were satisfied with the various roles of the principal, including the evaluative role.

However, we did find that beginning teachers rated the overall program lower than they rated individual program components. Although two-thirds of beginning teachers rated the program as "good" or "excellent," even higher proportions rated specific program features as useful or valuable. Although these ratings are not strictly comparable, they do suggest either that our survey may have failed to uncover certain program features that were problematic or that beginning teachers were sometimes dissatisfied with more than one aspect of the program, causing them to rate the program lower than they rated individual program components.

PROGRAM EFFECTS ON TEACHING SATISFACTION
AND FUTURE PLANS

The important evaluation questions that can be addressed with our survey data are the extent to which participation in the program increased new teachers' satisfaction with their first-year teaching experience and affected their stated intentions to teach next year and in
five years. We measured these program effects through statistical methods that compared the survey responses of inexperienced program participants and inexperienced nonparticipants while controlling for demographic differences between the two groups.

Participants were more satisfied with their first-year experience than nonparticipants and this effect was statistically significant. An estimated 54 percent of typical new teachers participating in the program stated that they were very satisfied with their first-year teaching experience, compared with 44 percent of nonparticipants. This suggests a rather substantial increase in satisfaction levels, which may in turn reflect a more effective job performance and may lead to improved retention rates.

Although we could not assess job performance or actual retention, our data show that the program appears successful at influencing new teachers’ plans for teaching in the following year. Participants were more likely to state that they would definitely teach next year, and this effect was statistically significant. A logistic regression analysis that controls for teacher characteristics shows that a typical teacher who was a program participant had an estimated 84 percent probability of stating that he or she would definitely teach next year, as opposed to 74 percent for nonparticipants. This also represents a substantial improvement in teachers’ plans to remain in teaching, which may translate into an increase in retention.

The results for the probability of teaching in five years show weak positive, although statistically insignificant, program effects, suggesting that other factors may be more important in determining five-year plans.

PROGRAM IMPROVEMENTS

Our data suggest ways in which this new program might be made even more useful and effective. Two major issues need to be addressed: the dissatisfaction expressed with specific aspects of the program by 10–20 percent of participants and a somewhat less effective implementation of the principals’ program duties at the secondary level.

Participants’ dissatisfaction arises from several sources. Some want more time from their mentors. A few feel that the principal or mentor puts in too little time, especially at the high school level.

About one in ten new teachers felt that their assigned mentors were inappropriate. Since the appropriateness of the mentor greatly affects the value of the program for the new teacher, ensuring that the selected mentor is an appropriate choice could improve program
quality and effectiveness. However, although the current high degree of success in matching teachers and mentors may be difficult to improve, it might be improved by adding a system of checks and balances. An informal review by the principal of new teacher/mentor pairings seems warranted. Consultation could be held with the new teacher and the mentor early in the year. Giving the new teacher some control of the process, either at the time of the initial choice or later when selecting a replacement mentor might also be considered.

Currently, mentors appear to be spending an amount of time with their beginning teachers appropriate for most beginning teachers' needs. Also, they are fairly compensated for the time they spend mentoring, receiving an hourly wage of about $15, although some beginning teachers want a greater degree of mentor support. Raising mentor pay across the board to increase mentor time for these few teachers seems unwarranted in light of the widespread satisfaction expressed with the time currently spent. On the other hand, implementing an equitable system of differentiated mentor stipends would probably be difficult, as demonstrated by unsuccessful attempts at other differentiated pay programs within teaching.

The problem may partially be addressed by giving mentors and new teachers more release time from classes. Indiana's new funding program, providing up to five release days per beginning teacher, may be enough to provide the extra time that some beginning teachers currently feel they need. If it is not, allowing additional release time in cases of greatest need may be a feasible means of improving the program's ability to meet these beginning teachers' needs, without engendering the controversy of a differentiated pay plan.

Principals' participation appears to be somewhat more of a problem at the secondary level, where the administrative burden of a larger staff and student body can make it especially difficult to find time for "extra" responsibilities such as evaluating and providing feedback to new teachers. The only solution to this problem appears to be restructuring principals' job duties; the possibility of delegating some of the principals' program responsibilities to other school personnel might be considered.

FUTURE RESEARCH

The results of our study deal only with new teachers' intentions to teach in the future. It would be useful and fairly straightforward to test whether attrition is lower over the next five years among those in the internship program.
The success of this program raises the possibility that more structured and focused induction programs should be tested. The current program appears to provide an improved learning environment for new teachers and shows promise of reducing their attrition rates. However, attrition rates for new teachers are still high, and movement to full induction programs might be cost-effective if they reduce attrition rates even more. Such programs would allow closer working relationships between mentors and new teachers, more time for observation and evaluation, and more sharing of responsibility for classroom teaching. They could also involve the concept of induction schools where expert, highly experienced teachers work closely with inexperienced teachers. Since these programs would be more expensive, small-scale pilot programs would be warranted before full implementation.
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I. INTRODUCTION

As educational reforms evolve in the wake of *A Nation at Risk*, there has been a growing recognition that improving the quality of our nation's educational system must also entail improving the quality of the teaching force (Carnegie Forum on Education and the Economy, 1986; National Governors' Association, 1986). Improving the teaching force in turn requires an understanding of the teacher labor market and the forces that determine the current supply and quality of entering teachers. The supply of qualified applicants itself depends on numerous policies and practices that make teaching a more attractive or rewarding career alternative. Thus, a wide range of teacher-related policies, particularly those addressing teacher preparation, recruitment, and retention, have been implemented in recent years in an effort to improve both the supply and quality of the precollegiate teaching force.

The most obvious and most prevalent of these recent initiatives is increased teacher salaries. Other pay initiatives, such as merit pay and shortage-related bonus pay, have also become more prevalent. Yet other initiatives address teachers' working conditions. For example, career ladder programs attempt to increase the attractions and rewards of teaching by combining pay increases with increased work responsibilities. Many school restructuring programs also include some degree of teacher “empowerment” as part of their educational improvement efforts. At the same time, reforms are occurring in teacher education and certification, with “alternative routes” broadening opportunities to enter teaching; other requirements and programs seek to impose higher standards that improve the quality of entering teachers.

Many of the new teacher reform policies can be classified as part of a growing effort to improve education by “professionalizing” teaching. This effort attempts to increase the degree to which teachers are granted the authority to use their skills and knowledge to affect both policy and practice within schools, in exchange for increased regulation of the process of teacher preparation and entry (Darling-Hammond, 1989). Teacher induction programs, derived from induction models in other professions, are an example of one such effort.

We define an induction program as a formal postschooling process that seeks to develop and monitor the professional skills necessary for competent practice and to certify that these skills have been acquired before entry into the profession. Perhaps the most common model for
an induction program is the medical internship served by prospective doctors. Another model is found in architecture, where novice practitioners serve a period of apprenticeship before becoming fully licensed (see Darling-Hammond, Gendler, and Wise, 1990). The induction program thus serves as a bridge between formal schooling and practice, providing novice practitioners the opportunity to expand and perfect their clinical skills under the direction of experts. It typically has three primary objectives: to assist in professional skill development, to screen for minimum competency standards, and to increase the likelihood that those qualified will enter and remain in their chosen profession. To the extent that participation in a teacher induction program screens out those judged unqualified or influences those qualified to stay in teaching, they need to be studied in the context of teacher supply and demand.

The concept of teacher induction is fairly new and has not been well studied. To date, most of the information we have on induction programs is anecdotal. Among the few published studies that have examined teacher induction, most focus on the mentoring role. These studies consistently find that new teachers strongly value working with a mentor teacher (Hoffman et al., 1986; Huffman and Leak, 1986; Varah, Theune, and Parker, 1986). One study that compared a small sample of new teachers who had a mentor with those who did not found that the assistance of a mentor made novice teachers' first year less problematic, and increased their desire to remain in teaching (Varah, Theune, and Parker, 1986).

These studies have also provided some insight on implementation issues. First, they have shown that it is important for mentors to volunteer, rather than be appointed to the role, i.e., having a willingness to work with a novice colleague is an important criterion for an effective mentor. Second, they have found that mentors should provide instruction in the same subjects and grades and with the same teaching philosophy as the novice teacher with whom they are to work. Finally, a common implementation problem in mentor programs appears to be that mentors often have too little free time to devote to the mentoring role.

THE CURRENT STUDY

Given the potential role of teacher induction programs in improving the supply and retention of qualified teachers, as well as improving their skills and proficiency, teacher induction programs deserve close attention. The study described in this report examines in detail Indiana's teacher internship program. The specific objective of this
study is to examine the effects of the internship program at the completion of its first year of implementation. Because program effectiveness largely depends on how well a program is implemented, we also examine this issue. The implementation factors we focus on are the frequency and quality of the interactions that occur between beginning teachers and their mentors and principals. Program effects examined are the extent to which the program increases participants' satisfaction with their first year in teaching and motivates them to remain in teaching. It should be noted that this analysis is not intended to be a complete evaluation of the internship program; rather, it provides an initial assessment of program implementation and potential effects based on the attitudes and perceptions of new teachers.

Data were collected on the internship program as part of a survey of newly hired teachers in Indiana public schools in 1988–89. The survey provided data from 1,660 new, transferring, or returning teachers. Of those surveyed, 515 newly hired teachers were internship program participants. These program participants were asked a series of questions about the frequency with which they were observed and evaluated, the usefulness of mentor input, the appropriateness of the mentor selected to work with them, and their opinions of the various roles and responsibilities assigned to those involved in the program, as well as their overall opinion of the internship program. To measure the effects of the program, we compared inexperienced teachers who were participating in the program with those who were not in the program in terms of their attitudes toward their first year in teaching and their intentions to teach in the next year and in the next five years.

The Indiana program is a fairly standard internship model, and this study analyzes it in depth, using a markedly larger sample than has been used in past studies. The results of this study should thus be useful not only to policymakers and practitioners in Indiana but also to those in other states that have implemented, or are considering implementing, a teacher induction program.

THE LARGER STUDY

This report is part of a larger study that assesses the current state of teacher supply and demand in Indiana, to determine and recommend policies to ensure an adequate supply of qualified teachers, and to provide the Indiana State Department of Education with the capability to monitor and perform future assessments of teacher supply and demand. One part of this study uses longitudinal data provided by the Indiana State Department of Education on student enroll-
ments, teacher salaries, and teacher workforce participation to model teacher supply and demand. Since the quality of the teaching force is directly affected by who chooses to enter (and remain in) teaching, the second part of the study, of which this report is one part, supplements these data with information from a survey of newly hired teachers.

Specific questions addressed by the survey are:

1. What are the sources of teacher supply and the paths into teaching taken by newly hired teachers? How have these paths changed over time?
2. How does the teacher labor market work? What is involved in searching for and accepting a teaching job? What alternative occupations do teachers consider and apply for?
3. How satisfied are teachers with their entering or reentering teaching experience? What are the primary sources of dissatisfaction?
4. What are their short-term and long-term career plans? What factors are important in these decisions?
5. What are new teachers' experiences in and opinions of the Indiana Beginning Teacher Internship Program? Does an internship program affect their reported career plans and satisfaction with their initial teaching experience?

The fifth topic—experiences in and opinions of the Beginning Teacher Internship Program—is the focus of this report. The other survey topics will be addressed in future reports.

In addition to these reports presenting data from the survey of new hires, an additional report (Grissmer and Kirby, 1991) analyzes attrition patterns of full-time teachers over a 23-year period, from 1965 to 1987, using Indiana's computerized database. A final report will present the results from an integrated model of teacher supply and demand that will address questions of possible teacher shortages. Although the specific findings in this study are most relevant to educators and policymakers in Indiana, the methods and implications of our findings should be of more general and widespread interest.

**ORGANIZATION OF THE REPORT**

In the remainder of this report, we review the survey data obtained on the Indiana Beginning Teacher Internship Program. Section II provides background on teacher internships in general and on the scope and purpose of the Indiana internship program. Section III reviews the purpose, development, and administration of the Indiana
teacher survey. Section IV uses survey data to describe the program participants and describes the creation of a comparison group of non-participants. Section V discusses aspects of program implementation and teachers' reactions to the program, both overall and for different types of teachers. Section VI compares the satisfaction levels and plans to remain in teaching of program participants and nonparticipants. Finally, Sec. VII summarizes the major findings from Secs. III through VI and provides recommendations for program improvement.
II. THE INDIANA BEGINNING TEACHER INTERNSHIP PROGRAM

THE ROLE OF TEACHER INDUCTION PROGRAMS

The first year of teaching is necessarily the most difficult, as teachers make the transition from students of teaching to independent, fully functioning practitioners. This transition is neither simple nor straightforward; many important teaching skills can be acquired only through actual practice. The complexities of knowledge application, skill development, and decisionmaking inherent in effective teaching cannot be taught through “book learning,” but only through clinical experience (Darling-Hammond, Gendler, and Wise, 1990). The first year of teaching thus serves, more than other years, as a learning experience as well as a teaching experience.

However, the structure of teaching does not support teachers in their efforts to learn their practice during the initial year. After only a brief, unevenly structured student-teaching experience, beginning teachers are typically left to sink or swim (Darling-Hammond, Gendler, and Wise, 1990). The stresses inherent in this transition process undoubtedly contribute to the fact that many new teachers leave teaching within their first five years (Grissmer and Kirby, 1987).

Research supports the value of providing increased support and assistance to beginning teachers, both to increase their success in teaching (Ryan, 1980; Tisher, 1978; McDonald, 1980) and to influence them to remain in teaching (Wise, Darling-Hammond, and Berry, 1987). A formal induction period for beginning teachers can also allow others to closely observe their skill development and to screen those who fail to master the necessary professional skills. Although teacher induction programs were virtually nonexistent in the past, recent efforts to professionalize teaching have contributed to their implementation in a number of states. By 1988, ten states, including Indiana, had mandated a teacher induction program, and 17 had initiated pilot test programs (American Association of Colleges for Teacher Education, 1988). Thus, over half the states have taken at least the first steps toward strengthening the role of the first year as a transitional experience by providing supervised training and collegial support.
TYPES OF TEACHER INDUCTION PROGRAMS

Several types of teacher induction programs have either been suggested or implemented. These range from models based on medical internships to fairly minimal programs based on current student teaching practice.

Induction Schools

This model would emulate the medical school model of induction and would create special induction schools similar to “teaching” hospitals (Wise, Darling-Hammond, Berry, et al., 1987; Darling-Hammond, Gendler, and Wise, 1990). These schools would provide a learning environment in which new teachers would work closely under the supervision of skilled, experienced teachers. New teachers would be required to spend a year in such schools; over the year, they would gradually assume increasing responsibility for instructional practice. These schools would be equipped with facilities that enhance the observation and feedback of teaching skills as well as with libraries containing instructional resource materials. Special curricula and teaching schedules would enable new teachers to experiment with a wide variety of teaching skills and classroom management situations.

Induction schools—if properly designed—would provide the most comprehensive induction program. However, they would also be the most costly—both in terms of the cost of facilities and also in the time required of skilled teachers and special staffs. This concept has not been implemented to date, although it is under consideration in Minnesota.

School-Based Full Induction Programs

In a full school-based induction program, the novice teacher would share responsibility for a classroom with a highly skilled, experienced teacher who has been trained to supervise beginning teachers. The novice would have primary responsibility for instruction but would not function autonomously; the supervising teacher would assist and advise the novice as needed. During the year, the supervising teacher would transfer increasing authority and autonomy to the novice until by the end of the year the novice had achieved an acceptable level of teaching performance and could assume complete, independent responsibility for classroom instruction. An end-of-the-year evaluation
would determine whether the novice teacher had passed the internship and could become a fully functioning practitioner.

An important feature of this program is the continuous monitoring of the novice's skills and activities, rather than the infrequent classroom observations characteristic of more limited programs. With continuous supervision, the beginning teacher is observed in a wide variety of teaching situations rather than in the more formal and "superprepped" classroom observation. This assures that the new teacher acquires a full range of teaching skills, enables the supervising teacher to offer more informed assistance for improving the novice's skills, and helps the beginning teacher adopt professional standards similar to those of expert teachers.

A school-based induction program, like that in an induction school, would also expose novice teachers to the full range of students and subjects that they will be certified to teach. This may mean that some beginning teachers fulfill their internship in more than one school or classroom (with more than one supervising teacher).

The cost of this program would be less than that of the induction school, but more than that of the mentor programs described below. The primary costs would be the salary of the additional teacher who would work with each novice teacher in each class. Such full school-based induction programs have also not been implemented.

**Mentor Programs**

Currently, most teacher induction programs are some form of mentor program. In these programs, each new teacher is assigned a mentor teacher who helps the beginning teacher adjust to the school and develop skills, but who also has full responsibility for his or her own class. These programs typically offer the beginning teacher a full year of assistance and often include an evaluative component (Darling-Hammond and Berry, 1988). However, they differ from more structured internship programs in important ways.

In a mentor program, the novice teacher has full responsibility for a classroom from the very beginning of the school year, and classroom observations are infrequent and highly structured. Skill development and proficiency depend mainly on the novice's own initiative in attending informal sessions outside the classroom. In some programs, mentor teachers receive very little or no training in carrying out their mentor responsibilities. These features minimize both the amount and quality of assistance the supervising or mentor teacher can provide. Finally, mentor programs typically do not expose novice teachers to students or classes other than their own; this also limits the
novice's opportunities to learn from other teachers or to broaden their repertoire of skills.

Although mentor programs provide limited assistance and evaluation, a number of design features can increase their effectiveness. First, the mentor should not serve concurrently as an official evaluator of the beginning teacher, as this role tends to undermine the trust and confidence that are essential to a successful mentoring relationship. Mentors should also have the personal and professional skills required of an effective mentor. They should be skilled, highly experienced teachers willing to share their knowledge and flexible and caring in their collegial relations. Mentors and their beginning teachers should also have compatible teaching styles and philosophies and should be provided ample opportunity for collegial exchange and observation (see Million, 1990; Galvez-Hjornevik, 1986; Huffman and Leak, 1986).

Mentor programs are the least expensive of the formal induction programs, since the new teacher takes full responsibility for a separate classroom. Their main costs are in mentor training, direct salary increments given to the mentors, the cost of substitute teachers needed for any release time for the mentor or new teacher, and central administrative costs.

**Student Teaching**

Traditionally, prospective teachers receive their initial clinical experience by student teaching at the end of their college training. However, the inadequacy of student teaching (at least as typically implemented) as a form of teacher induction is apparent from the stresses and frustrations so commonly found among new teachers (e.g., Ryan, 1980). This experience tends to be an inadequate form of induction for a number of reasons. First, the experienced teachers with whom prospective teachers work are usually not selected or trained to provide professional support and assistance. Also, the student-teaching experience itself tends to be unstructured and therefore widely variable in the degree to which it provides teacher candidates with either an effective mentor or useful opportunities for practicing their craft. Some student teachers may spend most of their time observing; others may spend most of their time providing instruction, some with assistance, some with little if any.

Another limitation is that student teaching lasts only a few weeks or months. This does not provide enough time for the prospective teacher to observe and develop the broad repertoire of skills required for autonomous practice. For example, one recent study found that
teacher candidates strongly desire longer, more varied, and more closely supervised student-teaching experiences (Darling-Hammond, Hudson, and Kirby, 1989). Prospective teachers need more opportunities both to observe experienced colleagues and to develop, with expert guidance and support, their own teaching skills. Finally, student teachers are typically spared some of the most demanding tasks involved in teaching, since they usually work with classes that have been "broken in," that is, in which the rules and routines of the school day have been established, as have procedures for dealing with students' problems. This limits student teachers' opportunities for developing skills in important pedagogical areas.

One problem with implementing a more standardized and effective student teaching experience is that each college's teacher education program must develop its own program and coordinate its program with each school district in which its students are placed. Teacher mentor programs, which are typically state- or district-run, are more easily standardized in design. For these programs to improve student teaching, however, they must also be better implemented than typical student teaching programs.

A critical issue underlying all of the teacher induction programs discussed above is the tradeoff between induction costs and benefits. In medicine, for example, the high costs of an extended, intensive internship are viewed as necessary for ensuring that doctors begin independent practice with the practical knowledge and skills the internship provides. These costs are balanced against the consequences of allowing less-prepared doctors to practice. These consequences include potential liability for malpractice, reduced quality of medical care to patients, and perhaps inefficient medical expenditure. If lower-quality induction results in higher attrition, then the training cost of those leaving also must be included. Finally, loss of status as a profession can also be a consequence of low-quality preparation.

In teaching, the assumption has traditionally been that the benefits of more expensive induction models are not worth the increased costs. However, continued high rates of early teacher attrition, a growing recognition of teachers' central role in determining educational outcomes, and the societal costs of inadequate outcomes have led to a reassessment of this minimal commitment to teacher induction. Newly developed mentor teacher programs reflect the growing view that a greater investment in teacher induction will result in a commensurate payoff through increased teacher retention and reduced societal costs stemming from inadequate educational outcomes.

It is difficult to evaluate this cost-benefit tradeoff for any type of teacher induction program, as these programs are new and infrequently evaluated and their benefits cannot be easily quantified.
However, a good beginning is to measure the effect of induction programs on retention rates.

**THE INDIANA BEGINNING TEACHER INTERNSHIP PROGRAM**

The Indiana Beginning Teacher Internship Program was established as part of a larger educational reform package, the "A+ Program for Educational Excellence," passed by the state legislature in 1987. Although called an internship program, the Indiana program is based on the mentor program model outlined above. The program requires that all beginning teachers serve a one-year internship, during which a mentor teacher provides assistance and support, and the school principal observes and evaluates the beginning teacher to ensure that he or she achieves a minimal level of teaching competence. The internship program thus strives to ease the stress and problems faced by new teachers while also ensuring that they reach an acceptable level of performance. The procedures for providing assistance and assessment are to be developed by each district in a "local plan," based on general program regulations established by the state.

**Program Roles and Responsibilities**

The state regulations establish certain roles and responsibilities for the internship program. First, each school district is required to offer an orientation program for beginning teachers, in which an initial conference is held with the new teacher, school principal, and assigned mentor teacher. The nature of the internship program, as laid out in the local plan, must be explained to the beginning teacher at this initial conference. Second, the roles of the various program participants are specified as follows:

- The superintendent is responsible for developing and implementing the local plan, for assigning mentor teachers, and for giving the mentor teacher the necessary time to assist and observe the beginning teacher.
- The school principal observes and evaluates the beginning teacher and holds conferences afterward to discuss the results of the evaluation. The principal must decide by May if the teacher has successfully completed the internship. Although the superintendent is theoretically responsible for assigning mentors, in practice the principal makes about 80 percent of
all mentor assignments and has considerable input into most of the remaining assignments.

• The mentor teacher participates in a mentor training program and meets periodically with the beginning teacher to provide guidance and to discuss the beginning teacher's progress. At the beginning teacher's request, the mentor may also attend the postobservation conferences.

• At the request of the beginning teacher, his or her college advisor may serve as an internship advisor. In this role, the advisor may attend the initial conference as well as postobservation conferences with the principal.

The local plan specifies other responsibilities that these individuals may have, as well as the details of the responsibilities outlined above, such as the minimum number of times the principal should observe the beginning teacher. (The state initially recommended at least three evaluations per year.)\(^1\) The principal is also required to evaluate the beginning teacher using the state-developed "Beginning Teacher Assessment Inventory." The inventory provides a checklist of teacher behaviors that determine whether the beginning teacher: manages instructional time effectively, manages student behavior effectively, uses effective instructional strategies and activities; actively monitors student performance, provides effective instructional feedback, facilitates instruction, exhibits effective human relations skills within the classroom, and performs noninstructional activities adequately.

The legislation also specifies that beginning teachers who do not pass the assessment in the first year may be given a second year in which to do so. Although the decision on whether to renew a teacher's contract is separate from the decision on whether the beginning teacher has passed the internship evaluation, achieving the minimal level of competency laid out in the assessment is required for continued employment after the second year.

An important feature of the Indiana program is the separation of the assistance (mentor) and evaluative (principal) roles. This allows for a nontreating, fully supportive relationship between mentor and beginning teacher, rather than one in which concerns about performance assessment undermine the trust and confidence that are essential to an effective mentor-novice relationship. Another feature necessary for ensuring effective mentoring is the provision of sufficient time for carrying out these responsibilities. In the program's

\(^1\)Since our data were collected, the state has changed its recommendation to at least four observations, spaced about six weeks apart.
first year (when our data were collected), superintendents had the authority to grant release time for mentors, but this release time was by no means guaranteed. In the following year (1989–90), however, the state provided additional funds to allow for five release days per beginning teacher. These days can be used for mentor observation of the beginning teacher or for beginning teacher observation of the mentor or other experienced teachers.

**Program Eligibility**

The law establishing the internship program requires that all teachers who receive an Indiana teaching certificate (a standard or reciprocal certificate) after March 31, 1988, serve in the program, unless they have at least two years of teaching experience in an accredited out-of-state school.² Those certified before March 31, 1988, do not serve internships, nor do those on conditional or emergency certificates. The latter exemption was made on the premise that those who are not fully certified by definition cannot be judged as minimally competent.

**Program Costs**

An important component of any educational improvement initiative is its cost, as costs must be balanced against effects to determine the overall value of the initiative.

The internship program is a relatively inexpensive program compared with total state funding for education (currently over $3 billion). The state’s budget for beginning teacher programs annually totals about $1.8 million. About $1.2 million of this covers internship program costs. These costs include: a $600 a year stipend for each mentor teacher, reimbursement of college advisors on a per diem basis, about $100,000 for mentor and principal training, and, beginning in 1989–90, pay for release time for mentors and beginning teachers (an additional $200 per beginning teacher). The remaining funds are used for other beginning teacher efforts (e.g., a new program of beginning teacher training modules).

²This typically includes out-of-state public schools but not out-of-state private schools.
Program Goals

Knowledge of the goals of the internship program is essential to an assessment of program effects. The state's information manual for beginning teachers lists six program goals that focus on the following three areas: (1) providing a psychological and social support system to help the beginning teacher adjust to the school environment, (2) providing the knowledge and assistance needed for successful teaching, and (3) increasing the likelihood that the beginning teacher will remain in teaching.

These goals provide one framework for assessing the success of the program. Our survey allows us to address two program goals: the extent to which the program makes the first year more satisfying for beginning teachers and the extent to which participation encourages teachers to remain in teaching. In the next section we describe the survey that provides the data for this examination of the Indiana internship program.
III. SURVEY OF NEWLY HIRED TEACHERS IN INDIANA PUBLIC SCHOOLS

The survey instrument (see Appendix A) was designed to provide detailed information on the work history, teaching experiences, and future plans of beginning and returning teachers. One section of the survey was devoted to the subject of the internship program. The survey instrument, sample, administration, and response rate are described in the following sections. (For more detail on the survey and its administration, see Kirby, Grissmer, and Hudson, 1991.)

SURVEY QUESTIONNAIRE

The survey questionnaire focused on five separate topics: (1) teachers' current assignment and work conditions, (2) future plans, (3) work history, (4) teacher labor market experience, and (5) the teacher internship program. Specific questions addressed in the survey included the following:

- Current assignment: whether the teacher taught self-contained or departmentalized classes; the number and type of students taught (in terms of ability); primary teaching assignment; average course load; and hours spent per week in school-related activities during and after school hours.
- Satisfaction with current assignment and working conditions along a number of dimensions.
- Experience with the Beginning Teacher Internship Program and overall impressions of the program.
- Future plans: likelihood of teaching next year and reasons for considering leaving; likelihood of remaining in teaching given improvements in teaching conditions or salary; importance of various factors in the decision to leave teaching; likelihood of transferring to another school district the following year and the reasons for considering such a transfer; longer-term career plans.
- Previous work history: main activity during the prior school year; comparison of prior occupation to the current teaching assignment; reasons for reentering teaching or transferring from another state or private school.
- Labor market experience: process of job search; importance of various factors in the decision to apply to specific school dis-
districts; timing of applications and offers; alternative occupations considered.

- Background: educational and demographic profile; marital status; number of children under and over five years of age; salary from various sources, including teaching and summer employment; and total family income.

The section of the survey examining the Indiana Beginning Teacher Internship Program includes an assessment of participants' experiences in and perceptions of the program. However, these data should not be viewed as a complete evaluation of the internship program.¹ For example, we collected data only from beginning teachers, not from mentors or principals. Also, we are only able to evaluate retention effects through teachers' current assessment of whether they will be teaching in one year and in five years. A better assessment would follow individuals over the next five years to determine if actual retention is higher for program participants. In short, this study provides an initial assessment of program implementation based on the attitudes and perceptions of new teachers and of the extent to which new teachers' initial teaching experience and short-term and long-term career plans are affected by program participation.

SURVEY SAMPLE

The survey was administered to all Indiana public school teachers employed in a full-time teaching position in school year 1988–89 who were not so employed in 1987–88. We used the educational personnel tapes provided by the Indiana State Department of Education to obtain a list of all full-time teachers in 1988–89 who were not listed (as full-time teachers) in 1987–88. This population of new hires thus includes not only those hired for teaching positions for the first time but also those returning to their former teaching position, or a new position, after a leave of absence from teaching, those transferring from an out-of-state or private school teaching position, and those starting full-time positions after a period of substitute or part-time teaching. Not included in this population are those teachers who have moved from one Indiana public school to another between 1987 and 1988. This means that our analysis looks at newly hired teachers from the point of view of the state (rather than the local school dis-

¹The Indiana Department of Education is currently conducting its own evaluation of the internship program.
The initial population of new hires consisted of 3,066 teachers in grades K through 12, all of whom were included in the survey sample.

**SURVEY ADMINISTRATION AND RESPONSE RATE**

The survey was mailed to teachers at their schools. Survey administration was conducted from April to May 1989; this was the end of the first school year in which the internship program was implemented. Two survey follow-ups in the form of a reminder postcard and a new survey packet were mailed in May.

We received 1,953 completed surveys from the 3,066 mailouts, for an unadjusted response rate of 64 percent. Initial analyses of the responses revealed that 288 respondents were ineligible, either because their responses to an initial screening question revealed that they were not full-time teachers or because their survey responses indicated that they had taught in Indiana in the previous year. Eliminating these cases, we have a final sample of 1,660.\(^2\)

Normally, one attempts to correct for nonresponse bias in survey data. However, the evidence available indicates little if any response bias in our sample.\(^3\) Thus, the analyses presented in this and other reports are based on unweighted data. The following section describes the sample of program participants.

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\(^2\)A true response rate could not be calculated because we cannot identify the true universe of teachers who are new hires in 1988-89. This is because we cannot determine how many of the nonrespondents are actually ineligible—i.e., they did not respond because they had self-selected themselves out of the sample, knowing themselves to be ineligible. If we make the highly conservative assumption that none of these are ineligible, we obtain an adjusted response rate of 60 percent (1,665/2,778, eliminating the 288 ineligibles from both the numerator and denominator). However, if we make the less conservative assumption that the proportion of ineligibles in the universe of 3,066 teachers is the same as among the respondents (14.7 percent), we obtain an adjusted response rate of 64 percent (1,665/2,614).

\(^3\)The question of nonresponse bias in our analytical results from the survey data is moot. Given that we do not have a precise picture of the population of newly hired teachers, we could not compensate for nonresponse bias through some form of weighting. However, we did compare the respondent sample with the overall population along demographic categories and found that, with the exception of gender, the differences between the two were not statistically significant.
IV. PROGRAM PARTICIPANTS

THE SAMPLE OF PARTICIPANTS

Our sample of 1,660 newly hired teachers included the following types of teachers:

- New, inexperienced teachers.
- Experienced teachers:
  - Teachers migrating from other states;
  - Teachers migrating from private schools;
  - Returning Indiana teachers.

From this group of new hires, 515, or 31 percent, participated in the internship program in 1988–89. The remaining teachers were ineligible for program participation because they received a standard Indiana teaching certificate before the March 31st cutoff, or because they had at least two years of experience in an accredited out-of-state school. As a result of the former criterion, only 59 percent of all inexperienced new hires were in the program. Seven percent of all experienced new hires also participated in the program; these are presumably newly certified teachers with less than two years of experience, or with only private school experience.

Table 4.1 shows that 88 percent of program participants were inexperienced new hires. Of the remaining 12 percent, 6 percent were teachers migrating from other states’ public schools, 3 percent were transfers from private schools, and 3 percent were returning Indiana public school teachers. The latter group presumably includes Indiana teachers who previously taught with emergency credentials.

<table>
<thead>
<tr>
<th>Teaching Background</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inexperienced</td>
<td>88</td>
</tr>
<tr>
<td>Migrating public school teachers</td>
<td>6</td>
</tr>
<tr>
<td>Returning Indiana public school teachers</td>
<td>3</td>
</tr>
<tr>
<td>Transfers from in-state private school</td>
<td>2</td>
</tr>
<tr>
<td>Transfers from out-of-state private school</td>
<td>1</td>
</tr>
</tbody>
</table>
CREATING A COMPARISON GROUP

To assess the effects of the internship program on beginning teachers' satisfaction and retention, it is necessary to compare program participants' reactions and expectations to those of a similar group of teachers who are not in the program. Unfortunately, the internship program, like most educational programs, was not implemented in a manner that fully supports an experimental evaluation of its effects. If it had been implemented to support evaluation, it would not have been fully implemented immediately in all Indiana school districts but delayed for a year in some districts that could serve as a comparison group for evaluating program effects. Since the program was implemented in all Indiana districts, a pure experimental control group is absent.

However, it is possible to construct a quasi-experimental comparison group. One candidate for this comparison group is the full sample of nonparticipating new hires. However, 73 percent of the nonparticipating new hires are experienced teachers, compared with only 12 percent of program participants. Since years of experience in teaching affects both teacher satisfaction and retention (Grissmer and Kirby, 1987; National Education Association, 1987), we decided to create comparable groups of participants and nonparticipants by selecting only those in each group without prior teaching experience. This resulted in a sample of 441 inexperienced program participants and 313 inexperienced nonparticipants.

Table 4.2 compares these two groups on a number of background characteristics. As this table shows, there are some notable differences between these two groups, one being that program participants are more likely than nonparticipants to be teaching at the secondary level. The other differences appear to be a direct result of the program's eligibility requirements. Since only newly certified teachers are required to participate in the program, all new entrants who received their certification in earlier years are in the nonparticipants group. As a result, this group tends to be older and more highly educated than the participant group. However, when assessing program effects, these differences can be statistically controlled for using a multivariate analysis.

Before examining program effects, it is important to measure the extent and quality of program implementation, since the effectiveness of the program will depend on how well it was implemented. It is important to note that we evaluated the program in its first year of operation. As with most programs, both the degree to which it is successfully implemented and its effectiveness in meeting its goals will probably improve over time. The effects we measure here can thus be
considered lower limits to long-term effectiveness. The extent and quality of implementation and participants' experiences in the program are the topic of Sec. V.

Table 4.2
PERCENTAGE DISTRIBUTION OF CHARACTERISTICS OF INEXPERIENCED PROGRAM PARTICIPANTS AND NONPARTICIPANTS

<table>
<thead>
<tr>
<th>Background Characteristic</th>
<th>Percentage</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Participants</td>
<td>Nonparticipants</td>
<td></td>
</tr>
<tr>
<td>Sex</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>74</td>
<td>79</td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>26</td>
<td>21</td>
<td></td>
</tr>
<tr>
<td>Teaching level</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Elementary or special education</td>
<td>57</td>
<td>63</td>
<td></td>
</tr>
<tr>
<td>Secondary or vocational education</td>
<td>43</td>
<td>36</td>
<td></td>
</tr>
<tr>
<td>Degree level</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bachelor's degree</td>
<td>96</td>
<td>89</td>
<td></td>
</tr>
<tr>
<td>Degree above bachelor's</td>
<td>3</td>
<td>11</td>
<td></td>
</tr>
<tr>
<td>Year of bachelor's degree</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1988 or 1989</td>
<td>78</td>
<td>16</td>
<td></td>
</tr>
<tr>
<td>Before 1988</td>
<td>22</td>
<td>84</td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Under 26</td>
<td>66</td>
<td>38</td>
<td></td>
</tr>
<tr>
<td>26–30</td>
<td>14</td>
<td>28</td>
<td></td>
</tr>
<tr>
<td>31–35</td>
<td>6</td>
<td>11</td>
<td></td>
</tr>
<tr>
<td>Over 35</td>
<td>15</td>
<td>24</td>
<td></td>
</tr>
</tbody>
</table>
V. PROGRAM IMPLEMENTATION AND PARTICIPANTS' EVALUATION

In this section, we examine two sets of data on the internship program. The first set relates to program implementation: How often did beginning teachers interact with their mentors and how often were they observed by their principals? How well matched were the beginning teacher and mentor in terms of teaching assignment and teaching style? The second (and related) set of data focuses on how satisfied beginning teachers were with the program as a whole and with specific aspects of the program related to the separate roles played by the mentor (the assistance role) and by the principal (the evaluative role).

PROGRAM IMPLEMENTATION

Data on the reported frequency of observation, listed in Table 5.1, suggest that most mentors and principals appear to be fulfilling their minimum program functions in a satisfactory manner. For example, 87 percent of the beginning teachers were observed at least once by their mentor, and 97 percent were observed at least once by their principal. Sixty-one percent of principals observed at least three times (as recommended by the state).

Although the internship program requires at least one principal observation, in a few cases the assigned evaluator was not the teacher's principal but the assistant principal, superintendent, vocational coordinator, or department chair. These cases most likely account for the 3 percent of beginning teachers who stated that they were never evaluated by their school principals. This leaves 11 percent of all beginning teachers being observed by their principals only once, and 36 percent being observed only twice. It is possible that in some of these cases another school administrator was the assigned evaluator, but the principal sat in on one or two evaluations. In many of these cases, however, principals probably were the assigned evaluators and in these instances, there is room for improvement in principals' program participation.

Other data suggest that about 10–20 percent of beginning teachers are dissatisfied with aspects of the program's evaluative component. For example, Table 5.2 shows that 15 percent of the beginning teachers would like to have more time spent on evaluations, and 21
percent want more time for discussion of their evaluations. Table 5.3 shows that 9–10 percent were dissatisfied with the principal's availability or the principal's program responsibilities. Surprisingly, given anecdotal and other evidence of teachers' concerns about performance evaluation, only 7–12 percent of the beginning teachers were dissatisfied with the evaluation process (including evaluation procedures, objectivity, and accuracy; see Table 5.3). The fact that the evaluation assesses minimal competency and is not directly linked to retention or pay decisions probably contributes to this high level of acceptance and satisfaction.

However, the heart of Indiana's internship program is the mentor teacher, who is directly responsible for providing the beginning teacher with advice, support, and assistance as needed throughout the school year. Our analyses revealed that the perceived appropriateness of the mentor choice, the amount of time the mentor spends with the beginning teacher, and the similarity of the mentor's teaching experience and style to those of the beginning teacher all affect beginning teachers' views of the program as a whole. These mentor-
Table 5.3
PERCENTAGE DISTRIBUTION OF TEACHERS' SATISFACTION WITH PRINCIPAL-RELATED ASPECTS OF THE PROGRAM

<table>
<thead>
<tr>
<th>Program Aspect</th>
<th>Satisfied or Very Satisfied</th>
<th>Neutral</th>
<th>Dissatisfied or Very Dissatisfied</th>
</tr>
</thead>
<tbody>
<tr>
<td>Availability of principal</td>
<td>81</td>
<td>8</td>
<td>10</td>
</tr>
<tr>
<td>Principal's responsibilities</td>
<td>80</td>
<td>11</td>
<td>9</td>
</tr>
<tr>
<td>Evaluation procedures</td>
<td>78</td>
<td>10</td>
<td>12</td>
</tr>
<tr>
<td>Frequency of evaluations</td>
<td>76</td>
<td>12</td>
<td>11</td>
</tr>
<tr>
<td>Objectivity of evaluations</td>
<td>83</td>
<td>10</td>
<td>7</td>
</tr>
<tr>
<td>Accuracy of evaluations</td>
<td>81</td>
<td>10</td>
<td>8</td>
</tr>
</tbody>
</table>

...ing responsibilities are obviously a critical factor influencing the (beginning teachers' perceived) success of the program.

Although it is encouraging that almost 70 percent of all beginning teachers are observed by their mentors at least twice, it is somewhat discouraging that 13 percent of beginning teachers are never observed. In part this may be because some school districts do not require mentor observations; however, a small minority of mentors may also be lax in their duties.\(^1\) The inability to find or obtain time for observations is also a likely factor; these data may change after the newly allocated release-time funds are used.

Table 5.4 shows that 74–86 percent of the beginning teachers are satisfied with the role and responsibilities of the mentor teacher, although only 65 percent are satisfied with the frequency with which they are observed by their mentor. The major source of dissatisfaction appears to be that not enough time is spent on observations: Over 80 percent of those not satisfied with the frequency of observation stated that they would like more, rather than fewer, observations. One way to improve the internship program may thus be to encourage and provide time for more mentor observations, as the new release-time funds are intended to do.

The amount of time that beginning teachers spend with their mentor teacher ranges from less than one hour per week to over four hours per week, with most (88 percent) interacting one hour per week or less. (It should be noted that these data were collected at the end of the school year; the figures might have been higher at the beginning of the school year, when the beginning teachers are in most need

\(^1\)We tested the hypothesis that these are mentors assigned to experienced teachers, who may feel that experienced teachers do not require observation. This hypothesis was not supported—only 16 percent of the “unobserved” teachers had prior teaching experience (compared with 12 percent of the “observed” teachers).
Table 5.4
PERCENTAGE DISTRIBUTION OF TEACHERS' SATISFACTION WITH MENTOR-RELATED ASPECTS OF THE PROGRAM

<table>
<thead>
<tr>
<th>Program Aspect</th>
<th>Satisfied or Very Satisfied</th>
<th>Neutral</th>
<th>Dissatisfied or Very Dissatisfied</th>
</tr>
</thead>
<tbody>
<tr>
<td>Availability of mentor</td>
<td>84</td>
<td>7</td>
<td>10</td>
</tr>
<tr>
<td>Confidentiality of mentor relationship</td>
<td>86</td>
<td>8</td>
<td>6</td>
</tr>
<tr>
<td>Mentor's responsibilities</td>
<td>74</td>
<td>13</td>
<td>13</td>
</tr>
<tr>
<td>Frequency of observations</td>
<td>65</td>
<td>17</td>
<td>18</td>
</tr>
</tbody>
</table>

of assistance.) As Table 5.2 shows, this amount of time, as well as the time mentors spend on classroom observations, is adequate for most beginning teachers; however, about one-quarter would like to spend more time with their mentors.

Interestingly, 6–9 percent of the beginning teachers would like to spend less time with their mentors. Data on the appropriateness of the mentor choice (displayed in Table 5.5) suggest that this desire for less mentor contact may stem not from overzealousness on the part of the mentor but from a mismatch between mentor and beginning teacher that creates professional or personal tension between the two; 12 percent of the beginning teachers felt that their mentor teachers were an inappropriate choice. Table 5.6 shows that, from the beginning teachers' perspective, mentors were least likely to be well matched to beginning teachers in their teaching style or philosophy. This is not surprising, as teaching style is difficult for principals (or whoever assigns mentors) to accurately discern before observing the beginning teacher in the classroom; if and when principals try to match beginning teachers and mentors on this dimension, they probably rely heavily on intuition. Given this, it is actually surprising that the "teaching style" match is at least fairly good in 90 percent of all cases.

A final question asked beginning teachers how useful they found the assistance they received from their mentor teacher. As Table 5.7 shows, mentors' assistance was viewed as quite helpful, especially in easing their adjustment to the school environment. Almost half of all beginning teachers found their mentors' advice for dealing with classroom management and instructional problems to be "extremely" useful, and 60 percent found their mentors' assistance in adjusting to the school to be extremely useful. Moreover, 87–90 percent of the beginning teachers found their mentors' assistance to be at least moder-
Table 5.5
TEACHERS' RATINGS OF APPROPRIATENESS
OF MENTOR CHOICE

<table>
<thead>
<tr>
<th>Rating</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very appropriate</td>
<td>61</td>
</tr>
<tr>
<td>Fairly appropriate</td>
<td>27</td>
</tr>
<tr>
<td>Fairly inappropriate</td>
<td>7</td>
</tr>
<tr>
<td>Very inappropriate</td>
<td>5</td>
</tr>
</tbody>
</table>

Table 5.6
PERCENTAGE DISTRIBUTION OF TEACHERS' RATING OF MENTORS' EXPERIENCE IN VARIOUS INSTRUCTIONAL AREAS RELEVANT TO TEACHERS' ASSIGNMENT

<table>
<thead>
<tr>
<th>Instructional Area</th>
<th>Mentor Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Very Experienced</td>
</tr>
<tr>
<td>Beginning teacher's grade level</td>
<td>69</td>
</tr>
<tr>
<td>Type of students beginning teacher teaches</td>
<td>72</td>
</tr>
<tr>
<td>Subject(s) beginning teacher teaches</td>
<td>63</td>
</tr>
<tr>
<td>Beginning teacher's teaching style/philosophy</td>
<td>47</td>
</tr>
</tbody>
</table>

Table 5.7
PERCENTAGE DISTRIBUTION OF TEACHERS' RATINGS OF USEFULNESS OF MENTORS' ADVICE AND ASSISTANCE

<table>
<thead>
<tr>
<th>Area of Assistance</th>
<th>Mentor Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Extremely Useful</td>
</tr>
<tr>
<td>Dealing with classroom management</td>
<td>47</td>
</tr>
<tr>
<td>Dealing with instructional problems</td>
<td>48</td>
</tr>
<tr>
<td>Adjusting to the school environment</td>
<td>60</td>
</tr>
</tbody>
</table>
ately useful—an overwhelming consensus. Among those who did not find their mentors’ assistance useful, experienced teachers are over-represented (see Table 5.10, below). Overall, these data suggest that the mentors’ advisory role was very successful, especially for teachers with no previous experience but even for the majority of experienced teachers.

OVERALL PROGRAM RATING

Interestingly, ratings of the overall impression of the internship program were lower than one might expect given the positive ratings for specific program components (such as the usefulness of mentor feedback and the accuracy of evaluations). As Table 5.8 shows, 65 percent of the beginning teachers rated the program as “good” or “excellent,” with 10 percent rating it as “poor.” In contrast, we saw in Tables 5.3 and 5.4 that more specific questions about the roles and responsibilities of internship participants typically elicited favorable ratings from 75–85 percent of the beginning teachers. These data are not entirely comparable, since they use different scales. Nonetheless, it does appear that there may be a real discrepancy.

The overall program evaluation might be lower than that given to specific program components for a number of reasons. One hypothesis, supported by our data, is that the program provides “too little” of a good thing. That is, the assistance and guidance provided by the program are highly valued, but the program does not allow for as much structured assistance and feedback as new teachers would like to have. The addition of release time for mentors may help solve this problem. It is also possible that the overall program rating provides a “lowest common denominator” response. That is, the 10 to 20 percent of teachers who are dissatisfied with each particular program component are not necessarily the same group of teachers; some may have helpful but inappropriate mentors, others may have appropriate but

<table>
<thead>
<tr>
<th>Rating</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Excellent</td>
<td>23</td>
</tr>
<tr>
<td>Good</td>
<td>42</td>
</tr>
<tr>
<td>Fair</td>
<td>25</td>
</tr>
<tr>
<td>Poor</td>
<td>10</td>
</tr>
</tbody>
</table>
unhelpful mentors, and still others may have useful mentors but principals who are not very supportive.\footnote{This hypothesis is supported by correlational data on program participants’ ratings of program components. Although participants’ ratings within the mentor- and principal-related program areas (see Tables 5.3 and 5.4) were correlated fairly highly (average correlations of 0.60 and 0.67, respectively), the average correlations of ratings between these two sections was only 0.25.} When the different program aspects are pulled together for an overall program rating, it may be that only one-quarter of the beginning teachers found that they were completely satisfied with all program components, so that only 23 percent rated the program as “excellent.” A more comprehensive program evaluation would be necessary to determine the validity of these hypotheses.

Further analyses revealed that beginning teachers’ ratings of the program are related both to how well the program is implemented and to the beginning teachers’ assignment. We predicted beginning teachers’ program ratings\footnote{Program ratings were converted into a dichotomous variable with “1” representing a rating of “good” or “excellent” and “0” representing a rating of “fair” or “poor.” Logistic regression was then used to predict this dichotomous program rating variable from the independent variables listed above. Appendix B provides a more detailed discussion of this multivariate technique.} from survey items assessing how often they meet with their mentors, how often they were observed by their mentors, how appropriate their mentor choice was, measures of the beginning teachers’ desirability as a teacher candidate,\footnote{This was operationalized in three ways. The first was teachers’ self-reported undergraduate grade point average. The second was teachers’ reports of how tight they perceived the teacher job market to be when they were seeking a teaching position. The third operationalization was the number of teaching job interviews teachers had while in the job market (controlling for the number of applications placed).} grade assignment (elementary or secondary), and whether the teachers were inexperienced or experienced.

Table 5.9 shows that, as one would expect, beginning teachers who are observed more often by their mentors, who spend more time with them, and who have more appropriate mentors also have more positive views of the program. Elementary teachers also have more positive views of the program than do secondary teachers. Further comparisons of these teachers suggest that this difference stems primarily from secondary teachers having more distant relationships with their school principals and more negative views of the evaluation process.\footnote{It is interesting that the frequency of principal observations is not related to teachers’ program ratings within elementary and secondary teaching levels (see Table 5.9, where teaching level is controlled for), but does seem important between levels. This most likely results from the greater variability in principal ratings that occurs when both teaching levels are combined.} Other things equal, experienced and inexperienced teach-
ers and teachers with different qualification levels did not show statistical differences in their impressions of the internship program.

These results imply that the internship program is equally helpful to teachers with a wide range of backgrounds, but that differences in teaching or school structure at the elementary and secondary levels affect the perceived success of the program, which may be due to a less-effective program implementation at the secondary level. We will return to this issue below, where we examine elementary and secondary teachers’ program experiences.

EXPERIENCES OF DIFFERENT TYPES OF TEACHERS

The above findings suggest further questions: Is the internship program implemented equally well for all types of teachers, and do different types of teachers evaluate the program differently? We examined these issues for three teacher comparison groups: (1) experienced compared with inexperienced teachers, (2) teachers self-rated as more or less well prepared for teaching, and (3) elementary and secondary teachers. In this subsection, we used the questions asking about the frequency of observation and evaluation and the time spent with mentors and principals to evaluate program implementation. Participants’ evaluations of the program were assessed by the overall satisfaction and program rating questions.
Experience Level

There were no differences in the way the program was implemented for experienced compared with inexperienced teachers (e.g., the frequency of observations and evaluations and time spent with mentor), or in their overall reactions to the program. There were a few differences in their reactions to the program, however, that reflect the different backgrounds of these groups (see Table 5.10). First, experienced teachers were more likely than inexperienced teachers to want fewer mentor observations (although even among this group, only 21 percent desired fewer observations). Second, experienced teachers were also less likely to find their mentors' advice useful (although the majority—71 to 86 percent—still found this advice useful).

Preparation Level

There were also no differences in how the program was implemented for those who were (self-rated as) more or less well prepared for teaching. However, there were differences in satisfaction among these groups, with the more prepared teachers typically being more satisfied with various components of the program, particularly with program evaluations (see Table 5.11). Those who feel better prepared also rate the program more highly: 27 percent of "very well prepared" teachers rated the program as excellent, compared with 23 percent of those who were "well prepared" and 18 percent of those who were not well prepared.

The relationship between satisfaction with the frequency of observations and preparedness probably reflects mentors' time constraints: Teachers who felt less prepared probably needed more assistance from mentors, but mentors may have only limited time to address the needs of these more poorly prepared teachers. The relationship between satisfaction with evaluations and preparedness most likely results from one of two possible effects. First, being less prepared for teaching may lead to lower internship evaluation ratings, which in turn lead to dissatisfaction with the evaluation itself. Second, low evaluation ratings may lead to both dissatisfaction with the eval-
Table 5.10
PERCENTAGE DISTRIBUTION OF EXPERIENCED AND INEXPERIENCED TEACHERS’ VIEWS OF INTERNSHIP PROGRAM: AREAS OF DIFFERENCE

<table>
<thead>
<tr>
<th>View</th>
<th>Experienced</th>
<th>Inexperienced</th>
<th>$\chi^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less time is desired for mentor</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>observations</td>
<td>21</td>
<td>8</td>
<td>10.6$^a$</td>
</tr>
<tr>
<td>Advice is not useful for:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dealing with classroom management</td>
<td>29</td>
<td>11</td>
<td>18.1$^a$</td>
</tr>
<tr>
<td>Dealing with instructional problems</td>
<td>29</td>
<td>11</td>
<td>14.5$^a$</td>
</tr>
<tr>
<td>Adjusting to the school environment</td>
<td>14</td>
<td>9</td>
<td>7.6$^b$</td>
</tr>
</tbody>
</table>

$^a p < 0.01$.  
$^b p < 0.05$.

Table 5.11
PERCENTAGE DISTRIBUTION OF SATISFIED OR VERY SATISFIED TEACHERS BY PREPARATION LEVEL: AREAS OF DIFFERENCE

<table>
<thead>
<tr>
<th>Program Component</th>
<th>Very Well Prepared</th>
<th>Well Prepared</th>
<th>Not Well Prepared</th>
<th>$\chi^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency of observations</td>
<td>71</td>
<td>63</td>
<td>63</td>
<td>25.4$^a$</td>
</tr>
<tr>
<td>Frequency of evaluations</td>
<td>81</td>
<td>75</td>
<td>70</td>
<td>20.6$^b$</td>
</tr>
<tr>
<td>Objectivity of evaluations</td>
<td>88</td>
<td>84</td>
<td>76</td>
<td>22.3$^a$</td>
</tr>
<tr>
<td>Accuracy of evaluations</td>
<td>87</td>
<td>82</td>
<td>73</td>
<td>35.7$^c$</td>
</tr>
</tbody>
</table>

$^a p < 0.05$.  
$^b p = 0.057$.  
$^c p < 0.01$.

...uation and the perception that one was not well prepared for teaching.  

These data suggest that the program could be made more effective if less well prepared teachers (or those who receive lower evaluation ratings) were given more mentor support than others. Currently, these teachers appear to be receiving, on average, no more attention than better prepared beginning teachers. Providing some limited flexibility in mentor payments or release time for addressing the problems of teachers needing more help could alleviate this problem. Since early observations and interactions could help identify those who are less well prepared, it could be feasible to use the internship program to both identify and (further) assist these special cases.

Because of this two-way effect, we did not include the preparedness variable in the regression model in Table 5.9.
Grade Level

The grade-level analysis showed a difference in program implementation. Secondary-level teachers are observed less often than elementary teachers by their school principals, and also are more likely to want more time spent on evaluations by principals (Table 5.12). The data on satisfaction with program components, although less strong, reinforce these findings; secondary teachers often rate the principal components of the program (evaluations), but not the mentor components, as less satisfactory than do elementary teachers (Table 5.13). Presumably because of this difference in the support they receive from their principals, secondary teachers rated the internship program overall less highly than did elementary teachers: 71 percent of elementary teachers rated the program as good or excellent compared with 58 percent of secondary teachers.

These results suggest another area for program improvement: Principals of secondary schools need to devote more time to the evaluation of beginning teachers and to ensuring the fairness and accuracy of these evaluations. This may be difficult because secondary school principals are notoriously overburdened, even without the added responsibilities of formally observing and evaluating new teachers. In lieu of the principal’s time, it may be necessary to delegate this responsibility to subordinates, provided it is judged to be of lower priority than principals’ other obligations. (In fact, the data in Tables 5.12 and 5.13 suggest that some secondary school principals may have already delegated this task. Some of the 28 percent of secondary school beginning teachers who are not evaluated at least twice by their

Table 5.12

PERCENTAGE DISTRIBUTION OF ELEMENTARY AND SECONDARY TEACHERS' VIEWS OF INTERNSHIP PROGRAM: AREAS OF DIFFERENCE

<table>
<thead>
<tr>
<th>Aspect of Program</th>
<th>Elementary</th>
<th>Secondary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Evaluated at least twice by principal(^a)</td>
<td>91</td>
<td>84</td>
</tr>
<tr>
<td>Desire more time spent on principal evaluations(^b)</td>
<td>10</td>
<td>19</td>
</tr>
</tbody>
</table>

\(^a\)\(\chi^2 = 4.4, p = 0.035\).
\(^b\)\(\chi^2 = 8.7, p = 0.013\).
Table 5.13
PERCENTAGE DISTRIBUTION OF SATISFIED OR VERY SATISFIED ELEMENTARY AND SECONDARY TEACHERS' VIEWS OF INTERNSHIP PROGRAM

<table>
<thead>
<tr>
<th>Program Component</th>
<th>Elementary</th>
<th>Secondary</th>
<th>$\chi^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Availability of mentor</td>
<td>84</td>
<td>84</td>
<td>0.0</td>
</tr>
<tr>
<td>Confidentiality of mentor relationship</td>
<td>86</td>
<td>87</td>
<td>0.0</td>
</tr>
<tr>
<td>Mentor's responsibilities</td>
<td>75</td>
<td>75</td>
<td>0.0</td>
</tr>
<tr>
<td>Frequency of observations</td>
<td>67</td>
<td>64</td>
<td>0.6</td>
</tr>
<tr>
<td>Availability of principal</td>
<td>81</td>
<td>81</td>
<td>0.0</td>
</tr>
<tr>
<td>Principal's responsibilities</td>
<td>82</td>
<td>77</td>
<td>1.8</td>
</tr>
<tr>
<td>Evaluation procedures</td>
<td>81</td>
<td>74</td>
<td>3.3$^a$</td>
</tr>
<tr>
<td>Frequency of observations</td>
<td>78</td>
<td>72</td>
<td>2.3</td>
</tr>
<tr>
<td>Objectivity of evaluations</td>
<td>86</td>
<td>80</td>
<td>3.5$^a$</td>
</tr>
<tr>
<td>Accuracy of evaluations</td>
<td>85</td>
<td>78</td>
<td>8.0$^b$</td>
</tr>
</tbody>
</table>

$^a p = 0.07.$  
$^b p = 0.005.$

principal may be evaluated by someone else. This would also account for the smaller differences in satisfaction ratings observed in Table 5.13.)

MENTOR CHOICE

Finally, our initial analyses of the data suggested that the selection of mentors is related to the success of the program. When we divided program participants into those who found their mentors to be “very appropriate,” “fairly appropriate,” and “fairly or very inappropriate,” we found quite striking differences on every internship question. Those with more appropriate mentors were observed more often (particularly by their mentors but also by their principals), spent more time with their mentors, found their mentors’ assistance to be more useful, and found the internship program to be more worthwhile. Not surprisingly, less-appropriate mentors were also less experienced in the beginning teachers’ grade level, types of students, subject areas, and teaching style. Table 5.14 demonstrates the strength of the differences found throughout this analysis, using the overall program rating data; whereas one-third of those with a very appropriate mentor viewed the program as “excellent,” none of those with an inappropriate mentor rated the program as highly.$^7$

$^7$These extensive differences suggest that the differences in teachers' ratings of their mentors' appropriateness are “real,” rather than that there exists a subgroup of teachers somehow difficult to get along with or to mentor. To test this, we compared
Table 5.14
PERCENTAGE DISTRIBUTION OF TEACHERS' RATINGS OF OVERALL PROGRAM, BY APPROPRIATENESS OF MENTOR CHOICE

<table>
<thead>
<tr>
<th>Program Rating</th>
<th>Very Appropriate</th>
<th>Fairly Appropriate</th>
<th>Fairly or Very Inappropriate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Excellent</td>
<td>34</td>
<td>7</td>
<td>0</td>
</tr>
<tr>
<td>Good</td>
<td>47</td>
<td>42</td>
<td>19</td>
</tr>
<tr>
<td>Fair</td>
<td>15</td>
<td>41</td>
<td>39</td>
</tr>
<tr>
<td>Poor</td>
<td>5</td>
<td>10</td>
<td>42</td>
</tr>
</tbody>
</table>

NOTE: $\chi^2 = 148.4, \ p < 0.001$.

One question these data raise is: To what extent are mentors viewed as inappropriate because they are unwilling to spend time or share information with the beginning teacher, and to what extent are they viewed as inappropriate because of more professional differences that may keep both parties from initiating interaction? That "inappropriate" mentors are less experienced in the beginning teachers' teaching assignment and teaching style suggests that the latter explanation has some validity, as does the finding that inappropriate mentors do not provide useful advice (Table 5.15). Other data, however, support both hypotheses: When these groups were asked how much time they would like to spend on mentor-related activities, those with less-appropriate mentors were more likely to want to spend both more time and less time on mentor observations and interactions than were those who had appropriate mentors (Table 5.16).

This implies that some mentors are judged as "inappropriate" because their input is not judged to be worth the beginning teacher's time—they are "professionally inappropriate," whereas other mentors simply do not spend enough time with their beginning teachers—they could be described as "role inappropriate." This is an important distinction, because it points out that simply requiring mentors to spend more time with their beginning teachers is not a feasible way to increase the program's value to new teachers. Mentors must be

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these beginning teacher groups (those with "very appropriate," "fairly appropriate," or "fairly or very inappropriate" mentors) in terms of their educational backgrounds (grade point averages) and job market experience, to see if those who rated their mentors as less appropriate were also those who may have had a harder time obtaining a teaching job. The three groups did not differ on these measures.

7This inference is also supported by data comparing mentors with differing levels of experience in the beginning teachers' grade, students, subject, or teaching style; in these cases, beginning teachers with less well-matched mentors desire less time—but not more time—with their mentors.
Table 5.15
PERCENTAGE DISTRIBUTION OF TEACHERS’ RATINGS OF USEFULNESS OF MENTORS’ ADVICE, BY AREA OF ADVICE

<table>
<thead>
<tr>
<th>Appropriateness of Mentor</th>
<th>Classroom Management</th>
<th>Classroom Instruction</th>
<th>Adjustment to School</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very appropriate choice</td>
<td>66</td>
<td>68</td>
<td>76</td>
</tr>
<tr>
<td>Appropriate choice</td>
<td>30</td>
<td>29</td>
<td>23</td>
</tr>
<tr>
<td>Not an appropriate choice</td>
<td>4</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>$\chi^2$</td>
<td>193.0$^a$</td>
<td>210.7$^a$</td>
<td>149.0$^a$</td>
</tr>
</tbody>
</table>

$^a p < 0.001.$

Table 5.16
PERCENTAGE DISTRIBUTION OF TEACHERS’ WISHES FOR MORE OR LESS TIME WITH MENTOR, BY MENTORS’ APPROPRIATENESS

<table>
<thead>
<tr>
<th>Classification of Mentor</th>
<th>Observation$^a$</th>
<th>Interaction$^b$</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>More Time</td>
<td>Less Time</td>
</tr>
<tr>
<td>Very appropriate choice</td>
<td>19</td>
<td>5</td>
</tr>
<tr>
<td>Appropriate choice</td>
<td>21</td>
<td>14</td>
</tr>
<tr>
<td>Not an appropriate choice</td>
<td>35</td>
<td>26</td>
</tr>
</tbody>
</table>

$^a \chi^2 = 39.0, p < 0.001.$

$^b \chi^2 = 54.6, p < 0.001.$

both appropriate for the task of mentoring (including being both willing and able to devote the time necessary to function as an effective mentor) and appropriate with respect to the knowledge and skills they have to offer. Requiring a mentor to spend more time with a beginning teacher who has a very different teaching style or who teaches a different subject to different types of students may only increase a new teacher’s frustrations. However, in cases where the mentor is professionally appropriate, policies that encourage or make easier mentor/teacher interactions are likely to increase the program’s value.

Another finding from the data on mentor choice is that principals who do not do as good a job in selecting mentors for their beginning teachers also do not do as good a job—or at least are not rated as doing as good a job—in meeting their program responsibilities: They observe beginning teachers less often, and beginning teachers are generally less satisfied with their (the principals’) roles and responsi-
abilities. As Table 5.17 shows, principals of beginning teachers with inappropriate mentors show a marked tendency to observe these teachers less than the minimal recommended number of times (i.e., three). Table 5.18 shows that although a majority of all beginning teachers were satisfied with their principals' program role, fewer of those with less appropriate mentors were satisfied.⁹

Table 5.17
PERCENTAGE DISTRIBUTION OF FREQUENCY OF PRINCIPAL OBSERVATION, BY MENTORS’ APPROPRIATENESS

<table>
<thead>
<tr>
<th>Number of Times Observed</th>
<th>Very Appropriate</th>
<th>Fairly Appropriate</th>
<th>Not Appropriate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Never</td>
<td>1</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Once</td>
<td>10</td>
<td>10</td>
<td>15</td>
</tr>
<tr>
<td>Twice</td>
<td>24</td>
<td>21</td>
<td>40</td>
</tr>
<tr>
<td>3 or more times</td>
<td>65</td>
<td>63</td>
<td>39</td>
</tr>
</tbody>
</table>

NOTE: χ² = 24.6, p = 0.006.

Table 5.18
PERCENTAGE DISTRIBUTION OF SATISFIED OR VERY SATISFIED TEACHERS’ VIEWS OF PRINCIPALS’ PROGRAM ROLE, BY APPROPRIATENESS OF MENTOR CHOICE

<table>
<thead>
<tr>
<th>Program Component</th>
<th>Very Appropriate</th>
<th>Fairly Appropriate</th>
<th>Not Appropriate</th>
<th>χ²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Availability of principal</td>
<td>84</td>
<td>80</td>
<td>67</td>
<td>25.4a</td>
</tr>
<tr>
<td>Principals' responsibilities</td>
<td>82</td>
<td>79</td>
<td>67</td>
<td>23.9a</td>
</tr>
<tr>
<td>Evaluation procedures</td>
<td>82</td>
<td>73</td>
<td>67</td>
<td>21.1a</td>
</tr>
<tr>
<td>Frequency of evaluation</td>
<td>80</td>
<td>72</td>
<td>61</td>
<td>19.8b</td>
</tr>
<tr>
<td>Objectivity of evaluation</td>
<td>87</td>
<td>79</td>
<td>70</td>
<td>33.3a</td>
</tr>
<tr>
<td>Accuracy of evaluation</td>
<td>88</td>
<td>78</td>
<td>67</td>
<td>26.7a</td>
</tr>
</tbody>
</table>

⁹It is also possible that at least some of the teachers who were not happy with the mentors they had been assigned took their frustrations out on their principals and gave them lower ratings only for this reason. Independent ratings from mentors or other school teachers would be needed to clarify this issue. Either way, however, it is clear that the appropriateness of the mentor, as judged by beginning teachers, is related to many other aspects of the program.
SUMMARY

Given that this program is in its first year, it appears to receive rather high marks for implementation from those teachers it serves. If the knowledge gained in this first-year experience extends into subsequent years, even higher ratings could probably be expected.

Our data suggest that the program is successful in meeting the goal of providing assistance to new teachers. Most beginning teachers seem to be receiving assistance that they value and find useful for easing their adjustment to teaching in general and to their new schools in particular. An important further question about program effects that we cannot answer with these data is whether these beginning teachers are teaching better because of their program experience; other forms of data collection are necessary to answer this question. Two other program goals we can examine with these data are whether teachers participating in the program are more satisfied with their first year in teaching than those not in the program, and whether they are more likely to plan to remain in teaching. We turn to these issues in Sec. VI.
VI. PROGRAM EFFECTS

As mentioned in Sec. II, the internship program’s goals center on three desired effects: (1) easing the stress of the first year in teaching, (2) encouraging new teachers to remain in teaching, and (3) improving new teachers’ skills in the classroom. Our survey can at least partially address the first two of these issues; the important issue of teaching skill cannot be addressed directly through a self-report survey. In this section, we examine the degree to which the internship program meets the former two goals, by comparing teachers participating in the program with those not in the program in terms of their satisfaction with their 1988–89 year in teaching and their future career plans.

SATISFACTION WITH THE FIRST YEAR IN TEACHING

We saw in the previous section that the internship program provides valuable assistance and guidance and is viewed favorably by the majority of participating teachers. This is one piece of evidence suggesting that the program is meeting its goal of easing the transition to teaching. Another way to assess this program goal is to examine whether the program makes the first year in teaching more rewarding and satisfying for beginning teachers. As Table 6.1 shows, the majority of all new hires were satisfied with their first year in teaching, but those in the internship program tended to be more satisfied than were those not in the program, even when years of experience are held constant. Ninety-three percent of all inexperienced program participants were satisfied with their year in teaching, compared with 89 percent of inexperienced teachers who were not in the program.

As mentioned in Sec. IV, these two groups of inexperienced teachers differ on some characteristics that are likely to be related to satisfaction. In particular, the participant group is younger than the nonparticipant group and is more likely to be teaching at the secondary level. Both of these characteristics are likely to be related to lower probabilities of remaining in teaching and to lower satisfaction levels. Thus, this univariate model may understate the program’s effect on teacher satisfaction.

To control for these differences, we used a multivariate logistic regression (see Appendix B) to predict the proportion of teachers who
are "very satisfied" with their first year of teaching\(^1\) from the teacher characteristics listed in Table 6.2. As this table shows, participation in the internship program is statistically significant in "explaining"

**Table 6.1**

**TEACHERS' SATISFACTION WITH THEIR 1988-89 TEACHING EXPERIENCE, BY PROGRAM PARTICIPATION AND EXPERIENCE LEVEL**

<table>
<thead>
<tr>
<th>Participation and Experience Status</th>
<th>Percent Satisfied or Very Satisfied</th>
</tr>
</thead>
<tbody>
<tr>
<td>All experience levels(^a)</td>
<td></td>
</tr>
<tr>
<td>Participants</td>
<td>92</td>
</tr>
<tr>
<td>Nonparticipants</td>
<td>86</td>
</tr>
<tr>
<td>Inexperienced only(^b)</td>
<td></td>
</tr>
<tr>
<td>Participants</td>
<td>93</td>
</tr>
<tr>
<td>Nonparticipants</td>
<td>89</td>
</tr>
</tbody>
</table>

\(^{a},\chi^2 = 11.4, p = 0.001.\)
\(^{b},\chi^2 = 4.7, p = 0.03.\)

**Table 6.2**

**RESULTS OF LOGISTIC REGRESSION PREDICTING FIRST-YEAR SATISFACTION FROM TEACHER CHARACTERISTICS AND PROGRAM PARTICIPATION**

<table>
<thead>
<tr>
<th>Independent Variable</th>
<th>Coef.</th>
<th>t-stat.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level taught</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Secondary</td>
<td>(-0.797)</td>
<td>(-4.455^{a})</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>(-0.314)</td>
<td>(-1.503)</td>
</tr>
<tr>
<td>Age at entry</td>
<td></td>
<td></td>
</tr>
<tr>
<td>25-29</td>
<td>0.491</td>
<td>2.397(^b)</td>
</tr>
<tr>
<td>30+</td>
<td>0.391</td>
<td>1.898</td>
</tr>
<tr>
<td>Program participation</td>
<td>0.414</td>
<td>2.367(^b)</td>
</tr>
</tbody>
</table>

**NOTE:** The omitted categories are age less than 25, female, elementary teachers, and teachers not participating in the internship program.
\(^{a}\)Significant at the 0.01 level.
\(^{b}\)Significant at the 0.05 level.

\(^1\)We used the rating "very satisfied" instead of both "very satisfied" and "satisfied," as was done in Table 6.1, because the proportion of teachers in these two categories was close to 95 percent and would yield little discrimination in a logit model.
first-year teacher satisfaction, with those in the program being more highly satisfied than those not in the program. The prediction model used in Table 6.2 allows us to estimate the proportion of young (less than 25 years old), inexperienced, female elementary school teachers not participating in the program who are very satisfied with their first year in teaching as 44 percent. Among teachers who are identical in all respects except that they are in the program, 54 percent are very satisfied with their year in teaching. This represents a 23 percent increase in high rates of satisfaction as a result of program participation. In sum, the program appears to be effective in making teachers' first year a more satisfying experience.

FUTURE PLANS

Intentions Compared with Behavior

To determine whether the program affects teachers' likelihood of remaining in teaching, we analyzed two survey questions that ask teachers how likely they are to be teaching (1) next year and (2) in five years. The validity of our analysis rests on the assumption that there is a positive relationship between stated career intentions and actual career behavior. Of course, we will not know whether the actual retention behavior of program participants differs from that of nonparticipants until they have taught for two and five years. We recommend conducting this follow-up, since it can be done simply by merging the 1989–90 and 1993–94 computerized teacher files with the current file that links the survey data to the 1988–89 state teacher file.

However, the link between stated intentions and actual behavior has been investigated in other occupations and found to be quite strong (Orvis et al., 1990; Grissmer and Kirby, 1991; Chow and Polish, 1980). These studies show that individuals who express an intention to join or remain in their occupation do actually join or stay at higher rates. Further, retention results are strongest when the probability of staying in an occupation is high. Thus a group of individuals who predict an 80 percent probability of staying in teaching is more likely to make an accurate prediction than a group who state a 20 percent probability. From the attrition analysis (Grissmer and Kirby, 1991) we believe that the probability of new teachers staying one year is around 85 percent, and around 60–70 percent for five years. Thus, a good correlation should be expected between our intentions data and actual behavior.
Not unexpectedly, another finding from the analysis of intentions and actual behavior is that the prediction is better for short-term (one-year) rather than longer-term (five-year) predictions. So our shorter-term predictions should be given more weight in evaluating program effects.

**Intentions Results**

Among inexperienced teachers, program participants and nonparticipants did not differ in whether they expected to be given a contract for the next year, but those participating in the program were more likely to plan to be teaching next year—74 percent of those in the program were "definitely" planning to be teaching in the next year, compared with only 63 percent of those not in the program. However, those not in the program did not express a greater desire to leave teaching; they merely felt that they would "probably" rather than "definitely" be teaching in 1989 (Table 6.3).

Again, a logistic multivariate model\(^2\) confirms the program's statistically significant relationship to retention plans (Table 6.4). This prediction model controls for teachers' age, gender, grade level of teaching, and initial salary level. In this case, we can estimate that the probability of a definite intention of remaining in teaching next year for a young, inexperienced, female elementary school teacher making an average new teacher salary of $18,777 increases from 74 percent to 84 percent if the teacher participates in the internship program—an increase of 13.5 percent.

<table>
<thead>
<tr>
<th>Probability of Remaining</th>
<th>Program Participants</th>
<th>Nonparticipants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Definitely</td>
<td>82</td>
<td>71</td>
</tr>
<tr>
<td>Probably</td>
<td>13</td>
<td>25</td>
</tr>
<tr>
<td>Unsure, probably not,</td>
<td>5</td>
<td>4</td>
</tr>
<tr>
<td>or definitely not</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

NOTE: \(\chi^2 = 19.7, p = 0.001\).

\(^2\)Those "definitely" planning to remain in teaching were coded "1," and all other categories were coded "0."
However, this difference in plans did not extend to five years. Table 6.5 shows that one-quarter of the teachers in both groups were certain they would remain in teaching for the next five years. The multivariate analysis (Table 6.6) confirms this lack of effect. In this case, the probability of intending to remain in teaching (plan to definitely not leave or probably not leave teaching) for five years, for a young, inexperienced, female elementary teacher earning an average new teacher salary, increases only from 71 to 73 percent, a statistically insignificant program effect.

These results suggest that the program does have a beneficial effect on teachers’ reactions to their first year, and that this effect carries over to their plans for remaining in teaching for a second year. But it is not clear that this effect will extend beyond the first year or two, as the five-year intentions data show no statistically significant program effect. However, intentions data become more unreliable for longer-term predictions, and the latter results may simply reflect an inability to accurately predict for longer time periods. As discussed above, to definitively determine whether the internship program affects longer-term teacher retention, participants and nonparticipants need to be tracked over time.

Table 6.4
RESULTS OF LOGISTIC REGRESSION PREDICTING
STATED PROBABILITY OF REMAINING IN
TEACHING NEXT YEAR FROM TEACHER
CHARACTERISTICS, SALARY, AND
PROGRAM PARTICIPATION

<table>
<thead>
<tr>
<th>Independent Variable</th>
<th>Coef.</th>
<th>t-stat.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level taught</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Secondary</td>
<td>-0.328</td>
<td>-1.587</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>-0.139</td>
<td>0.587</td>
</tr>
<tr>
<td>Age at entry</td>
<td></td>
<td></td>
</tr>
<tr>
<td>25–29</td>
<td>0.033</td>
<td>0.137</td>
</tr>
<tr>
<td>30+</td>
<td>0.014</td>
<td>0.059</td>
</tr>
<tr>
<td>Salary level</td>
<td>0.109</td>
<td>1.516</td>
</tr>
<tr>
<td>Program participation</td>
<td>0.605</td>
<td>3.002a</td>
</tr>
</tbody>
</table>

NOTE: The omitted categories are age less than 25, female, elementary teachers, and teachers not participating in the internship program.

aSignificant at the 0.01 level.
Table 6.5
PERCENTAGE DISTRIBUTION OF INEXPERIENCED TEACHERS' RATINGS OF THE LIKELIHOOD OF THEIR LEAVING TEACHING WITHIN THE NEXT FIVE YEARS, BY PROGRAM PARTICIPATION

<table>
<thead>
<tr>
<th>Probability of Leaving</th>
<th>Program Participants</th>
<th>Nonparticipants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Definitely</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>Probably</td>
<td>9</td>
<td>6</td>
</tr>
<tr>
<td>Unsure</td>
<td>22</td>
<td>23</td>
</tr>
<tr>
<td>Probably not</td>
<td>42</td>
<td>42</td>
</tr>
<tr>
<td>Definitely not</td>
<td>25</td>
<td>27</td>
</tr>
</tbody>
</table>

NOTE: $\chi^2 = 1.9$, $p = 0.75$.

Table 6.6
RESULTS OF LOGISTIC REGRESSION PREDICTING STATED PROBABILITY OF REMAINING IN TEACHING FOR FIVE YEARS FROM TEACHER CHARACTERISTICS, SALARY, AND PROGRAM PARTICIPATION

<table>
<thead>
<tr>
<th>Independent Variable</th>
<th>Coef.</th>
<th>t-stat.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level taught</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Secondary</td>
<td>-0.812</td>
<td>-4.313a</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>-0.313</td>
<td>-1.471</td>
</tr>
<tr>
<td>Age at entry</td>
<td></td>
<td></td>
</tr>
<tr>
<td>25–29</td>
<td>0.152</td>
<td>0.711</td>
</tr>
<tr>
<td>30+</td>
<td>0.768</td>
<td>3.228a</td>
</tr>
<tr>
<td>Salary level</td>
<td>-0.120</td>
<td>-1.865</td>
</tr>
<tr>
<td>Program participation</td>
<td>0.060</td>
<td>0.316</td>
</tr>
</tbody>
</table>

NOTE: The omitted categories are age less than 25, female, elementary teachers, and teachers not participating in the internship program.

$a$Significant at the 0.01 level.

Given the effects of other, more sustaining influences on teachers' decisions to remain in teaching (e.g., salary levels, the rewards and difficulties of working with children), it may be too much to expect a relatively modest, one-year internship experience to play a significant role in long-term retention decisions. Even without such long-term effects, however, the program's effects on first-year satisfaction and retention are impressive. Besides these effects, there may be other benefits not measured here. For example, case studies of teacher hiring practices have shown that induction programs can be an effective
recruitment tool (Wise, Darling-Hammond, and Berry, 1987); the internship program may make teaching in Indiana public schools more desirable to job candidates, or even to college students considering an education major. Further, school districts that develop a reputation for providing a high-quality internship experience are likely to be more attractive to prospective teachers.
VII. CONCLUSIONS AND RECOMMENDATIONS

In this study we were able to evaluate four aspects of Indiana's Beginning Teacher Internship Program. They are:

- The degree to which it was successfully implemented,
- Its effect on first-year satisfaction of teachers,
- Its effect on their plans to teach in the next year, and
- Its effect on their plans to remain in teaching for five years.

These aspects of the program do not constitute a complete evaluation, and this study is not intended to do so. A complete evaluation would include the experience of principals and mentors and would attempt to obtain measures of whether actual teaching skills improved. It would also follow up the sample of participants to see if their actual retention behavior is affected by the program. However, this study can be useful in assessing parts of the program and can aid in improving the program as it evolves.

The data for this study were collected at the end of the first year of the internship program. The first-year implementation appears to have been quite well done. Most mentor teachers and school principals fulfilled their program roles as expected, and the beginning teachers expressed a high degree of satisfaction with almost all aspects of the program. We found that most beginning teachers were satisfied with the amount of time they spent with their mentors, the appropriateness of their assigned mentor, and the amount of time devoted to various program activities. Except at the secondary level, beginning teachers were also equally satisfied with both the mentors' and principals' roles, including the evaluation process—a program component that has caused serious problems with many other reform initiatives (typically those in which the evaluation plays a significant role in salary, retention, or promotion decisions).

For instance, 87 percent of the beginning teachers were observed at least once by mentors, and 51 percent were observed three or more times. Ninety-seven percent of beginning teachers were observed by their principals at least once, with 61 percent being observed three or more times. Approximately 90 percent of beginning teachers were satisfied with the mentors chosen for them, over 84 percent were satisfied with the availability of the mentor, and over 70 percent were satisfied with the amount of time mentors spent with them. Over 85 percent of beginning teachers also found the assistance provided by
mentors useful. This includes help with instructional problems, classroom management, and acclimation to the school environment. Finally, about 80 percent of beginning teachers were satisfied with the various roles of the principal, including the evaluative role.

To measure the effects of the program, we constructed a control group from program nonparticipants who were inexperienced teachers. These nonparticipants differed from the participant sample of inexperienced teachers in having obtained their certification before March 1968, making them older on average. We controlled for these differences statistically to determine if those participating in the program had more positive attitudes toward their first year in teaching and if the program affected their plans to teach next year and in five years.

Participants were more satisfied with their first-year experience than nonparticipants, and this effect was statistically significant. The main effect on teacher satisfaction is that participants more often stated that they were very satisfied rather than just satisfied with their first-year teaching experience. An estimated 54 percent of typical new teachers participating in the program stated that they were very satisfied compared with 44 percent of nonparticipants. The program did not appear to affect a small percentage of teachers who expressed dissatisfaction with their first year in teaching.

The program also appears successful at influencing new teachers' plans for teaching in the following year. Participants were more likely to state that they would definitely teach next year, and this effect was statistically significant. A typical program participant had an estimated 84 percent probability of stating that he or she would definitely teach next year, as opposed to 74 percent for nonparticipants. Other studies have shown that occupational intentions are good predictors of actual behavior and are particularly good in cases such as this, where the probability of staying is high. Thus we would expect that more participants would actually teach in the following year. However, it is important to follow up the initial survey to determine who actually teaches and does not teach in the following year.

The results for the probability of teaching in five years shows weak positive effects that are not statistically significant. The probability of remaining in teaching for five years for a typical teacher increases only from 71 to 73 percent, and the program effect is statistically insignificant. Clearly other factors become more important in determining longer-range plans. It is also the case that intentions data become a less-accurate predictor over longer time periods, so the lack of effect might simply reflect an impaired ability to predict choices over such a long time period.
Although overall program ratings and ratings of individual program components are not strictly comparable, the overall ratings were lower than one might expect from the positive ratings given to various program features. For example, although two-thirds of the beginning teachers rated the program as "good" or "excellent," even higher proportions rated specific program features as useful or valuable. This suggests either that our survey failed to uncover certain program features that were problematic or that some teachers expressed dissatisfaction with more than one aspect of the program, and this caused them to rate the program lower than their average ratings for program components. Indiana's evaluation of the internship program should address this issue, since it may uncover areas for program improvement that we were unable to discern.

Nonetheless, other parts of our data do suggest ways in which this new program might be made even more useful and effective. The following two major issues need to be addressed:

- Ten to 20 percent of new teachers express dissatisfaction with specific aspects of the program, and
- The program appears to be working less well in high schools than in elementary schools.

The dissatisfaction arises from several sources. Some receive at least an average amount of assistance but would like even more time from mentors and principals. For others, the mentor is not a good match, either in teaching assignment or in teaching philosophy. For a few, there is simply too little time put in by the principal or mentor. At the high school level especially, the principal sometimes fails to carry out observations, and principals' evaluations are less well received.

On average, most new teachers valued the time spent with the mentor and thought the time provided adequate. When more time was desired, either the mentor was spending less than an average amount of time with the new teacher or the new teacher desired (and presumably needed) more than the average amount of time for mentor support.

Certain beginning teachers will simply need more mentor support, and there is currently no way to compensate mentors for spending additional time. Part of this problem may arise because mentors feel that they are already putting in an appropriate amount of time given their stipend level. Currently, mentors appear to be spending, on average, an amount of time that is both appropriate for most beginning teachers' needs and is fairly compensated (i.e., it provides the average mentor an hourly wage of about $15). Mentors who choose to spend
additional time with their assigned new teachers must do so without additional compensation.

This problem cannot be efficiently solved by simple compensation mechanisms that operate within the constraints of a uniform pay system for mentors. Raising mentor pay across the board seems unwarranted in light of the widespread satisfaction expressed with the time currently spent. Designing an equitable system of differentiated mentor stipends would probably require too much paperwork and engender too much conflict to make it worthwhile. So pay mechanisms seem impractical.

However, other options do exist. For example, the problem may be alleviated by keeping those beginning teachers needing more time in the program for a second year and providing mentoring during that year. A more practical option may be to provide mentors and beginning teachers with more release time from classes. The year after our data were collected, Indiana implemented a release-time program, providing up to five release days for each mentor/novice teacher pair. This release time may be sufficient to provide the extra time that some beginning teachers currently feel they need. If it is not, allowing for additional release time in cases of greatest need may provide a feasible means of improving the program's ability to meet these teachers' needs.

About one in ten new teachers stated that their assigned mentors were inappropriate. The appropriateness of the mentor selected to work with a beginning teacher greatly affects the value of the program for the new teacher. Beginning teachers whose mentors are not viewed as appropriate choices frequently desire less contact with them. In these cases, increasing opportunities for interaction will do little good and may possibly only increase new teachers' stress. Ensuring that the selected mentor is an appropriate choice is thus a key means of improving the quality of the program.

Although it is relatively easy to choose mentors in appropriate subject areas and grade levels, it is more difficult for principals to match mentors and beginning teachers on teaching philosophy and style. Our data suggest that although the selection process works well in most situations, it might be improved by adding a system of checks and balances. An informal review by the principal of the mentor selection through consultation with the new teacher and mentor early in the year seems warranted. Where replacements seem appropriate, they should be done with minimal paperwork. Giving the beginning teacher some control over the process, either in the form of input into the initial choice or the option of suggesting a replacement mentor after a period of working with the initial choice, might also be considered.
Teachers most likely to need the assistance and support provided by the internship program are those who are not fully certified. Currently, these teachers are excluded from the program, since evaluating the competence of uncertified teachers conflicts with the underlying rationale of a certification standard. However, the interests of both students and new teachers would be better served if uncertified teachers were also included in the program. To eliminate the implied contradiction of evaluating uncertified teachers as competent, the program could provide mentor support either without the principal evaluation, or with a different role for evaluations (e.g., to guide the mentor's efforts to improve the beginning teacher's skills). For these teachers, successful completion of the internship should depend on passing the Beginning Teacher Assessment Inventory and on achieving state certification.

Principals' participation appears to be somewhat more of a problem at the secondary level, where the administrative burden of a larger, and often more diverse, student body can make it especially difficult for administrators to find time for "extra" responsibilities such as evaluating and providing feedback to beginning teachers. This problem cannot be solved by release time and is probably difficult to solve because of principals' diverse responsibilities. The possibility of delegating some of the principals' program or other responsibilities to other school personnel should probably be considered.

Finally, the success of this program raises the possibility that more structured and focused internship programs should be tested on smaller scales. The current program goes part way to providing an opportunity for apprenticeship and an improved learning environment for new teachers. The high level of satisfaction expressed with this program also suggests that beginning teachers value the support and assistance provided by induction programs. This program also shows promise of reducing attrition rates for new teachers; movement to full induction programs might be cost-effective if this reduces attrition rates even more.

Such programs would allow closer working relationships between mentors and new teachers, more time for observation and evaluation, and more sharing of responsibility for classroom and teaching—at least during the initial part of the year. They could also involve the concept of induction schools where expert, highly experienced teachers work closely with inexperienced teachers (see Wise, Darling-Hammond, and Berry, 1987, for further explication of this concept). Since these programs would be more expensive, small-scale tests of such programs would be warranted before full implementation.
Appendix A
SURVEY INSTRUMENT
1989 INDIANA TEACHER SURVEY

Survey Purpose
The RAND Corporation, a non-profit research center, is conducting a survey of all Indiana elementary and secondary public school teachers who were not teaching in the Indiana public schools during the previous school year. The survey asks for information on your current teaching position, future plans, work history, teacher labor market experiences, and background. These questions are designed to obtain information useful to the Indiana Department of Public Instruction in understanding, monitoring and predicting new teacher supply, with a particular focus on those aspects of teaching which are most valuable for attracting and retaining a highly-qualified teacher workforce.

Your responses on this survey will be strictly confidential. Individual responses will be combined with all other survey responses to yield group statistics. Only those aggregated group statistics will be released to the Indiana Department of Public Instruction or to any other organization or publication. Please answer every question, unless you are asked to skip an item (or section) that does not apply to you. If you are unsure how to answer a question, please give the best answer you can.

Thank you for taking part in this survey.

Statement of Confidentiality
All information that you provide will be regarded as strictly confidential, and will be reported only through aggregated (group) statistics. Any identifying information collected will be used only for the purposes of the study and will not be disclosed or released for any other purpose, except as required by law.

INSTRUCTIONS
Some items will require that you mark ONLY ONE ANSWER. Other items will require that you mark ONE ANSWER OR MORE, depending on how many apply in your case. Here is an example of each type of item:

1. Do you own any house pets? (Mark one answer)
   Yes ................................................................. ①
   No ............................................................... ② ← GO TO 2

2. What kinds of house pets do you own? (Mark all that apply)
   Dog ......................................................... ③
   Cat .......................................................... ④
   Fish .......................................................... ⑤
   Bird ........................................................... ⑥
   Other .........................................................

3. Do you have any children? (Mark one answer)
   Yes ................................................................. ⑦
   No ............................................................... ⑧

Some items also ask you to skip to a later item, or to skip to the next section of the survey. In the example above, if you owned no house pets, you would skip item 2, and continue with item 3. It is important to follow the "GO TO ..." instructions whenever they appear, to save time and avoid confusion. If you find that you are attempting to answer a question that seems inappropriate (e.g., it asks where you taught last year, when you were, in fact, not teaching last year), check the previous items to see if you missed a "GO TO ..." statement.

USE NO. 2 PENCIL ONLY

6001

49
SECTION 1: YOUR CURRENT ASSIGNMENT

1. How does your school corporation classify your current position? (Mark one answer)
   - Regular full-time teacher (excluding special education) ........................................ 1
   - Part-time teacher ...................................................................................................... 2
   - Substitute teacher .................................................................................................... 3
   - Full-time nonteaching corporation employee .......................................................... 4
   - Other ....................................................................................................................... 5

IF YOU MARKED "1", PLEASE CONTINUE WITH THIS SURVEY. IF YOU MARKED ANY RESPONSE OTHER THAN "1", PLEASE STOP NOW AND RETURN YOUR QUESTIONNAIRE TO DATA RECOGNITION CORPORATION. THANK YOU FOR YOUR TIME.

2. Do you MAINLY teach a self-contained class (one group of students for all or most of the day) or departmentalized classes (different groups of students throughout the day)? (Mark one answer)
   - Self-contained class all day ..................................................................................... 1
   - Self-contained class most of the day ....................................................................... 2
   - Departmentalized classes ........................................................................................ 3

GO TO 4

3. How many students are currently enrolled in your self-contained class?

4. For the classes you teach:
   A. How many different preparations do you have on an average day?
      - 1
      - 2
      - 3
      - 4
      - 5
      - 6
      - 7

5. How satisfied are you with the courses you have been assigned to teach (e.g., would you prefer to teach different courses, fewer courses, etc.)? (Mark one answer)
   - Very satisfied ......................................................................................................... 1
   - Satisfied .................................................................................................................. 2
   - Dissatisfied ............................................................................................................. 3
   - Very dissatisfied ..................................................................................................... 4
6. What is your current PRIMARY teaching assignment field (that is, the one in which you teach the most classes) and what is your SECONDARY assignment field (the one in which you teach the next-most classes)? If your secondary assignment field is the same as your primary field, mark the same number in both columns. If your teaching schedule is divided equally between two different fields, mark the one for which you feel most qualified as your primary assignment field, and the other as your secondary assignment field. (Mark ONE answer in each column)

<table>
<thead>
<tr>
<th>Subject</th>
<th>Primary</th>
<th>Secondary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic skills/remedial education</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Business education</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Computer science</td>
<td></td>
<td></td>
</tr>
<tr>
<td>English/language arts</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fine arts (music, arts, drama)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Foreign language</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Health, physical education</td>
<td></td>
<td></td>
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<tr>
<td>Home economics</td>
<td></td>
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<tr>
<td>Industrial arts</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mathematics</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reading</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sciences</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Biology</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chemistry</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Earth science/geology</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Physics</td>
<td></td>
<td></td>
</tr>
<tr>
<td>General/other science</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social studies/social science</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Special education</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vocational education</td>
<td></td>
<td></td>
</tr>
<tr>
<td>All other fields</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

7. Which of the following describes the type of students you teach? (Mark all that apply)

- Mainly high-achieving students
- Mainly average-achieving students
- Mainly low-achieving students
- Wide range of achievement levels
- Mainly minority students
- Mainly non-minority students
- Mix of racial groups

8. On average, about how many hours per week do you spend on school-related activities during and after school hours?

<table>
<thead>
<tr>
<th></th>
<th>During school hours</th>
<th>After school (including weekends)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>per week</td>
<td>per week</td>
</tr>
<tr>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>1</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>4</td>
<td>5</td>
<td>4</td>
</tr>
<tr>
<td>5</td>
<td>6</td>
<td>5</td>
</tr>
<tr>
<td>6</td>
<td>7</td>
<td>6</td>
</tr>
</tbody>
</table>

9. How well did your educational training and/or previous teaching experience prepare you for your teaching assignment this year? (If you provide departmentalized instruction in more than one field, answer for your primary assignment field.) (Mark one answer)

- I was very well prepared
- I was well prepared
- I was just adequately prepared
- I was not adequately prepared

10. What kind of Indiana state teaching certificate do you hold? (Mark one answer)

- Lifetime certificate
- Regular, standard certificate
- Provisional (first-year) certificate
- Temporary or emergency certificate

11. On the whole, how satisfied are you with the teaching experience you have had this year? (Mark one answer)

- Very satisfied
- Satisfied
- Dissatisfied
- Very dissatisfied
12. To what extent are you satisfied with each of the following working conditions? (Mark one answer on each line)

- Student motivation to learn
- Student behavior
- Support from parents
- Recognition & support from administrators
- Support from other teachers
- Paperwork/clerical support
- Other nonteaching duties
- Time allowed for preparation
- Availability of resources & materials
- Quality of textbooks
- Manageability of workload
- Class size
- Grade or course assignment(s)
- Intellectual challenge of assignment
- Physical condition of school & classroom
- Safety of environment
- General work conditions

13. To what extent are you satisfied with each of the following other work factors? (Mark one answer for each line)

- Current salary
- Potential for salary growth
- Job benefits
- Opportunity for professional advancement
- Opportunity to attend graduate school
- Procedures for evaluating my performance
- Long-term job security
- Summer job opportunities
- Influence over work policies & practices
- Autonomy or control over my own work
- State student testing requirements
- Ability to meet students' emotional needs
- Ability to meet students' intellectual needs
- Extent of students' nonacademic problems
- Commuting distance
- Area of Indiana in which I teach

14. In this school year, have you been participating in the Indiana Beginning Teacher Internship Program (i.e., was a more senior teacher assigned as a mentor to offer instructional support and assistance)? (Mark one answer)

- Yes
- No

15. During this school year, how many times have you been observed in your classroom by your mentor teacher and by your school principal?

[Mark ONE answer in each column]

- Mentor
- Principal

   Never
   Once
   Twice
   Three times
   Four times
   Five or more times

16. During an average week about how much time do you and your mentor teacher spend discussing instructional issues? (Mark one answer)

- Less than one hour per week
- One hour per week
- Two hours per week
- Three hours per week
- Four hours per week
- More than four hours per week

17. Would you prefer to have more or less time spent on each of the following? (Mark one answer on each line)

<table>
<thead>
<tr>
<th>More Time</th>
<th>Less Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mentor observations</td>
<td>Same Amount of Time</td>
</tr>
<tr>
<td>Time with mentor outside of classroom</td>
<td>More Time</td>
</tr>
<tr>
<td>Evaluations by principal</td>
<td>More Time</td>
</tr>
<tr>
<td>Discussion of evaluations</td>
<td>Less Time</td>
</tr>
</tbody>
</table>
18. How useful do you find the assistance you receive from your mentor teacher? (Mark one answer in each section)

<table>
<thead>
<tr>
<th>A. For dealing with classroom management:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Extremely useful</td>
<td>1</td>
</tr>
<tr>
<td>Moderately useful</td>
<td>2</td>
</tr>
<tr>
<td>Not useful</td>
<td>3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>B. For dealing with instructional problems:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Extremely useful</td>
<td>1</td>
</tr>
<tr>
<td>Moderately useful</td>
<td>2</td>
</tr>
<tr>
<td>Not useful</td>
<td>3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>C. For adjusting to the school environment in general:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Extremely useful</td>
<td>1</td>
</tr>
<tr>
<td>Moderately useful</td>
<td>2</td>
</tr>
<tr>
<td>Not useful</td>
<td>3</td>
</tr>
</tbody>
</table>

19. How experienced is your mentor teacher in providing instruction in each of the following? (Mark one answer on each line)

<table>
<thead>
<tr>
<th>Not At All Experienced</th>
<th>Somewhat Experienced</th>
<th>Very Experienced</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Your grade level</th>
<th>The types of students you teach</th>
<th>The subject(s) you teach</th>
<th>Your teaching style or philosophy</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

20. In your opinion, to what extent is the teacher assigned as your mentor an appropriate choice? (Mark one answer)

<table>
<thead>
<tr>
<th>Very appropriate choice</th>
<th>Fairly appropriate choice</th>
<th>Fairly inappropriate choice</th>
<th>Very inappropriate choice</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

21. To what extent are you satisfied with the following aspects of the Beginning Teacher Internship Program, as they apply in YOUR PARTICULAR CASE? (Mark one answer on each line)

<table>
<thead>
<tr>
<th>Mentor and Observations</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Availability of mentor</td>
<td>1</td>
</tr>
<tr>
<td>Confidentiality of mentor relationship</td>
<td>2</td>
</tr>
<tr>
<td>Mentor’s responsibilities</td>
<td>3</td>
</tr>
<tr>
<td>Frequency of observations</td>
<td>4</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Principal and Evaluations</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Availability of principal</td>
<td>1</td>
</tr>
<tr>
<td>Principal’s responsibilities</td>
<td>2</td>
</tr>
<tr>
<td>Evaluation procedures</td>
<td>3</td>
</tr>
<tr>
<td>Frequency of evaluations</td>
<td>4</td>
</tr>
<tr>
<td>Objectivity of evaluations</td>
<td>5</td>
</tr>
<tr>
<td>Accuracy of evaluations</td>
<td>6</td>
</tr>
</tbody>
</table>

22. In GENERAL, what is your overall impression of the Beginning Teacher Internship Program? (Mark one answer)

<table>
<thead>
<tr>
<th>Excellent program</th>
<th>Good program</th>
<th>Fair program</th>
<th>Poor program</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>
SECTION 2: YOUR FUTURE PLANS

23. ASSUMING THAT YOU WANT TO RETURN, do you think you will be offered a new contract in your current corporation for the next school year? (Mark one answer)
   Yes .................................................. 0
   Unsure ............................................. 0
   No (due to RIF or other reasons) .................. 0

24. What is the probability that you will be teaching next year? (Mark one answer)
   Definitely ........................................ 0
   Probably ......................................... 0
   Unsure ............................................. 0
   Probably not ....................................... 0
   Definitely not ..................................... 0

   GO TO 28

25. What is the MAIN reason you are considering not teaching next year? (Mark one answer)
   School staffing action ........................... 0
   Marriage plans ................................... 0
   Pregnancy/childrearing/homemaking ........... 0
   To attend school ................................ 0
   Spouse/family move .............................. 0
   Sabbatical leave or other break from teaching
   Health-related reasons .......................... 0
   To move into nonteaching educational position
   To move into position outside of education .... 0

   GO TO 28

26. Would you still be interested in seeking a job outside of teaching if...
   (Mark one answer on each line)
   Definitely Not .................................. 0
   Probably Not .................................... 0
   Unsure ............................................ 0
   Probably ........................................ 0
   Definitely ....................................... 0

   A. your school corporation raised its salary scale by $4,000 per year ................ 0
   B. your class size or teaching load was cut by 20 percent ............................... 0
   C. you were assigned an aide or other assistance for dealing with paperwork and/or
      special needs students ........................................ 0

27. How important was each of the following in your decision to leave (or to consider leaving) teaching? (Mark one answer on each line)

   Not At All Important
   Somewhat Important
   Very Important

   Salary .............................................. 0
   Potential for salary growth ..................... 0
   Opportunities for professional advancement .................................................. 0
   Long-term job security .......................... 0
   Professional prestige ........................... 0
   Recognition and support from administrators ............................................. 0
   Workload/responsibilities ...................... 0
   Safety of environment .......................... 0
   General work conditions ...................... 0
   Availability of materials and resources ....... 0
   Class size(s) ...................................... 0
   School learning environment .................. 0
   Parental/community support ................. 0
   Student achievement levels .................. 0

IF YOU ANSWERED 1-7, GO TO 28
28. Will you seek a job in another school corporation for the next school year? (Mark one answer)

- Definitely
- Probably
- Unsure
- Probably not
- Definitely not

GO TO 31

29. Would you still be interested in seeking a job in another corporation if:
   (Mark one answer on each line)

A. Your school corporation raised its salary scale by $4,000 per year
   - Definitely
   - Probably
   - Unsure
   - Probably not
   - Definitely not

B. Your class size or teaching load was cut by 20 percent
   - Definitely
   - Probably
   - Unsure
   - Probably not
   - Definitely not

C. You were assigned as an aide or other assistance for dealing with paperwork and/or special needs students
   - Definitely
   - Probably
   - Unsure
   - Probably not
   - Definitely not

30. How important was each of the following in your decision to move (or to consider moving) to another corporation? (Mark one answer on each line)

- School staffing action
- School/corporation reorganization
- Spouse/family move
- Marriage
- Geographic location/commuting
- Distance
- Available teaching assignment
- Salary
- Potential for salary growth
- Availability of materials & resources
- Recognition/support from administrators
- Class size
- School learning environment
- Parental/community support
- Student achievement levels
- Safety of environment
- General work conditions

31. Within the next five years, how probable is it that you will leave the teaching profession? (Mark one answer)

- Will definitely leave
- Will probably leave
- Unsure
- Will probably not leave
- Will definitely not leave
### SECTION 3: YOUR WORK HISTORY

32. When did you first think about entering elementary or secondary teaching as a career?  
(Mark one answer)  
- Before high school  
- During high school  
- Between high school and college  
- During first two years of college  
- During last two years of college  
- After I graduated from college  

33. Was K-12 teaching your first career choice?  
(Mark one answer)  
- Yes  
- No

34. Were you enrolled in a college or university during the last school year (1987-88)?  
(Mark one answer)  
- Yes, as a full-time student  
- Yes, as a part-time student  
- No

35. Have you ever been employed full-time in a permanent occupation outside of the elementary and secondary education system? (Do not count summer or other temporary jobs.)  
(Mark one answer)  
- Yes  
- No

36. What was your MAIN ACTIVITY during the last school year (1987-88)?  
(Mark one answer)  
- Employed full time  
- Employed part time  
- Military service  
- Homemaker  
- Student  
- Retired  
- Unemployed  
- Other

37. If you were in the workforce in 1987-88, in what occupation were you employed?  
(Mark one answer)  
- An occupation in the K-12 school system:  
  - Substitute teacher  
  - Teacher's aide  
  - Classroom teacher  
  - Other school position
- An occupation outside of the K-12 school system:  
  - Managerial/administrative occupation  
  - Professional specialty  
  - Post-secondary teaching  
  - Social service specialty  
  - Technical support  
  - Sales occupation  
  - Administrative support  
  - Service occupation  
  - Farming  
  - Other

38. For how many years were you employed in the job you held last year? (Mark one answer)  
- Less than 1 year  
- 1 year  
- 2 years  
- 3 years  
- 4 years  
- 5 years  
- More than 5 years

39. What was your annual salary? (Round to the nearest $1,000) $  
- $  
- $  
- $  
- $  
- $  
- $  
- $  
- $  
- $  
- $  
- $
40. Overall, how would you compare your current teaching job to the job you held last year? (Mark one answer)

- Current job much better
- Current job somewhat better
- Both jobs about the same
- Former job somewhat better
- Former job much better

41. How would you compare the following aspects of your current teaching job to the job you held last year? (Mark one answer on each line)

- Former Job Better
- Both Jobs the Same
- Current Job Better

<table>
<thead>
<tr>
<th>Aspect</th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Salary</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Potential for salary growth</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Opportunities for professional advancement</td>
<td></td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>Long term job security</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Job benefits</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Procedures for performance evaluation</td>
<td></td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>Availability of materials &amp; resources</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Influence over workplace policies &amp; practices</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Autonomy or control over own work</td>
<td></td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>Manageability of workload</td>
<td></td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>Work schedule</td>
<td></td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>Intellectual challenge</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Emotional challenge</td>
<td></td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>Job stress</td>
<td></td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>Professional prestige</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Recognition and support from administrators/managers</td>
<td></td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>Respect from colleagues</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Opportunity for professional exchange</td>
<td></td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>Continued growth and learning</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Safety of environment</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>General work conditions</td>
<td>x</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

42. NOT COUNTING this school year (1988-89), how many years of K-12 teaching experience do you have in:

A. The Indiana public schools
B. Indiana private/parochial schools

<table>
<thead>
<tr>
<th>Years</th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

C. Public schools in other states
D. Private/parochial schools in other states

<table>
<thead>
<tr>
<th>Years</th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</tr>
</tbody>
</table>

IF YOU HAVE NO PREVIOUS K-12 TEACHING EXPERIENCE (YOU ENTERED "00" IN A-D ABOVE) GO TO 63.

43. In what year did you first begin full-time elementary or secondary teaching? (Mark one answer)

- 1987-88
- 1986-87
- 1985-86
- 1984-85
- 1983-84
- Before 1983

44. Prior to this school year, what was the last school year during which you taught? (Mark one answer)

- 1984-85 or before
- 1985-86
- 1986-87
- 1987-88

GO TO 47
45. What is the main reason you took this leave from teaching? (Mark one answer)
   School staffing action ........................................ 0
   Pregnancy/childbirth ........................................... 0
   Family emergency ............................................... 0
   To take a sabbatical or other break from teaching .............. 0
   To try another career .......................................... 0
   To pursue further education ................................... 0
   Geographic move for personal reasons ....................... 0
   Spouse move ...................................................... 0
   Retirement ......................................................... 0
   Illness .............................................................. 0
   Other reason ...................................................... 0

46. What are the main reasons you decided to re-enter teaching in THIS school year? (Mark all that apply)
   First year I was offered a job ................................ 0
   Was offered a better teaching job than previous teaching job ........ 0
   Completed Indiana certification requirements .................. 0
   Increased need for extra family income ....................... 0
   Became dissatisfied with other job or activity ................ 0
   To earn additional retirement credits ......................... 0
   Leave of absence could not be extended ..................... 0
   Other ..................................................................... 0

47. How would you compare your current teaching job to your previous teaching job? (Mark one answer)
   Current job much better ......................................... 0
   Current job somewhat better .................................... 0
   Former job somewhat better .................................... 0
   Former job much better ......................................... 0

48. In what state was your most recent prior K-12 teaching experience? (Mark one answer)
   Indiana ......................................................... 0
   Illinois ............................................................ 0
   Kentucky ......................................................... 0
   Michigan .......................................................... 0
   Ohio ................................................................. 0
   Other state ...................................................... 0

49. Why did you transfer to the Indiana school system? (Mark all that apply)
   Spouse's job move .................................................. 0
   Preferred to live in Indiana ..................................... 0
   Teacher pay is better in Indiana ................................ 0
   Working conditions are better in Indiana ..................... 0
   More teaching opportunities in Indiana ....................... 0
   Other reason ...................................................... 0

50. When you were hired by an Indiana school corporation, did you receive full credit for your out-of-state teaching experience? (Mark one answer)
   Yes, for salary and pension purposes ......................... 0
   Yes, for pension purposes only ................................ 0
   No ....................................................................... 0

51. Was your most recent prior teaching experience in a public school or in a private or parochial school? (Mark one answer)
   In a private or parochial school ................................ 0
   In a public school .................................................. 0

52. Why did you switch to the public school system? (Mark all that apply)
   Spouse's job move .................................................. 0
   My private school closed ......................................... 0
   Better pay in public schools ..................................... 0
   More resources in public schools ................................. 0
   More challenging work in public schools ...................... 0
   No openings in private schools in local area .................. 0
   Other ..................................................................... 0
SECTION 4: YOUR TEACHER LABOR MARKET EXPERIENCE

53. In school year 1988-89, did you return to teach in the same school corporation after a leave of absence? (Mark one answer)
   Yes ........................................... ①
   No ........................................... ②  → GO TO 66

54. Did you apply to any other school corporations for a teaching position during your leave of absence? (Mark one answer)
   Yes ........................................... ①
   No ........................................... ②  → GO TO 77

55. What sources of information were available to help you decide on which school corporations to apply to, and which were most useful to you? (Mark all that apply)
   Recruiters who came to my college/university
   Recruitment conference
   College advisor
   Job placement service
   Personal knowledge of corporation(s)...
   Information I gathered from corporation(s)...
   Recommendations from friends, relatives, or other teachers...

56. To how many INDIANA school corporations did you apply while seeking your current job?

   Corporation(s)
   ① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨

57. How many of the INDIANA school corporations to which you applied offered you a position for 1988-89? (Mark one answer)
   ① ② ③ ④ ⑤ ⑥ ⑦ ⑧

58. In the grids below, enter the school corporation number (from the enclosed blue pages entitled "Indiana School Corporation List") of each Indiana corporation to which you applied during the last year (1988). Indicate the corporations in order of preference at the time you applied. If more than 4, mark your top 4 choices.

59. How important were each of the following in determining your MOST PREFERRED school corporation? (Mark one answer on each line)

   Not Important
   Somewhat Important
   Very Important

   A. Located in a rural area
   B. Located in a suburban area
   C. Located in a large city
   D. Geographic location near family
   E. Geographic location near current home
   F. Availability of openings
   G. High salary levels
   H. Mainly high achieving students
   I. Mix of student achievement levels
   J. Many special needs students
   K. Assignment matching my preferred subject areas
   L. Assignment matching my preferred subject areas
   M. Opportunity to teach upper-level courses
   N. Up-to-date instructional materials and equipment
   O. Administrative staff I respect
   P. Adequate instructional support staff

60. Which characteristic was MOST important in determining in which corporation you most preferred to work? (In the circles below, mark the ONE letter from Item 59)
61. In the grids below, enter the school corporation number of each Indiana corporation that offered you a position for this school year (1988-89), beginning with your most preferred offer.

<table>
<thead>
<tr>
<th>Most Preferred Offer</th>
<th>Second Preferred Offer (if any)</th>
<th>Third Preferred Offer (if any)</th>
<th>Fourth Preferred Offer (if any)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
</tr>
</tbody>
</table>

If you received only one offer, go to 63.

62. From the job offers you received, how does your first-choice offer compare to your second-choice offer on each of the following characteristics? (Mark one answer on each line)

Cannot Compare
Applies More to Second Choice
Applies About Equally
Applies More to First Choice

Located in a rural area
Located in a suburban area
Located in a large city
Geographic location near family or friends
Geographic location near current home
High salary levels
Mostly high achieving students
Mix of student achievement levels
Many special needs students
Assignment matches my preferred grade level
Assignment matches my preferred subject areas
Opportunity to teach upper level courses
Up-to-date instructional materials and equipment
Administrative staff I respect
Adequate instructional support staff

63. How many Indiana corporations invited you to interview with them? (Do not count interviews held on a college campus)

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10

64. How many interviews did you accept?

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10

65. In the lines below, mark the month in which you
(A) placed your first job application,
(B) placed your last job application,
(C) received your first interview request,
(D) received your last interview request,
(E) received your first job offer,
(F) received your last job offer, and
(G) accepted your current job.

(Mark "X" in lines B, D, or F if you placed only one application, received only one interview request, or received only one offer.)

(Mark one answer on each line)

<table>
<thead>
<tr>
<th>Not Applicable</th>
<th>September or later</th>
<th>August</th>
<th>July</th>
<th>June</th>
<th>May</th>
<th>March</th>
<th>April</th>
<th>February or before</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. First application placed</td>
<td>1 2 3 4 5 6 7 8 9 10</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B. Last application placed</td>
<td>1 2 3 4 5 6 7 8 9 10</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C. First interview request</td>
<td>1 2 3 4 5 6 7 8 9 10</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>D. Last interview request</td>
<td>1 2 3 4 5 6 7 8 9 10</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>E. First offer received</td>
<td>1 2 3 4 5 6 7 8 9 10</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>F. Last offer received</td>
<td>1 2 3 4 5 6 7 8 9 10</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>G. Accepted current job</td>
<td>1 2 3 4 5 6 7 8 9 10</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

66. When looking for a teaching job, did you do any of the following? (Mark all that apply)

- Contact principals on your own initiative
- Call corporations after sending application
- Utilize friends or relatives as contacts
67. During your job search in Indiana, how satisfied were you with each of the following?
(Mark one answer on each line)

<table>
<thead>
<tr>
<th>Very Dissatisfied</th>
<th>Somewhat Dissatisfied</th>
<th>Somewhat Satisfied</th>
<th>Very Satisfied</th>
</tr>
</thead>
</table>

- Availability of information on job openings
- Availability of openings
- Consistency of application forms
- Treatment received during interviews
- Timing of feedback on applications
- Timing of feedback on interviews
- Timing of job offers
- Match of actual job to promoted job
- Fairness of hiring process
- Overall job search process

68. On a five-point scale, how would you rate the difficulty of the job market for teachers in your grade level and/or subject area in Indiana?
(Mark one answer)

<table>
<thead>
<tr>
<th>Very easy to find jobs</th>
<th>Very difficult to find jobs</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>5</td>
<td></td>
</tr>
</tbody>
</table>

69. When you were on the job market, did you have any of the following "connections" to the corporation that hired you?
(Mark all that apply)

- I student taught here
- I substitute taught here
- I had another job here (e.g., etc.)
- I had friends or relatives working here
- I had other connections
- I had no connections

70. Had you applied for a teaching position in Indiana in a previous year (i.e., before 1988)?
(Mark all that apply)

- Yes, I applied for a position in 1987
- Yes, I applied for a position in a year prior to 1987
- No

71. In this school year, to how many states OTHER THAN INDIANA did you apply for a teaching position?
(Mark one answer)

<p>| | | | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
</table>

- If none, mark "0" and go to 73

72. To which other states did you apply?
(Mark all that apply)

- Idaho
- Illinois
- Kentucky
- Michigan
- Ohio
- Other state(s)

73. For this year, did you apply for any full-time jobs other than teaching?
(Mark one answer)

- Yes
- No

74. For what other occupations did you apply?
(Mark all that apply)

- An occupation in the K-12 school system:
  - Substitute teacher
  - Teacher aide
  - Other school position

- An occupation outside of the K-12 school system:
  - Managerial/administrative occupation
  - Professional specialty (e.g., lawyer, engineer, computer systems analyst)
  - Post-secondary teaching
  - Post-secondary support
  - Social service specialty (e.g., counselor, social worker)
  - Technical support (e.g., technician, nurse, computer programmer)
  - Sales occupation (e.g., retail sales, real estate, insurance sales)
  - Administrative support (e.g., computer operator, secretary, bookkeeper)
  - Service occupation (e.g., chef, child care worker, police officer)
  - Farming
75. Did you receive any job offers from these other occupations? (Mark one answer)

Yes ........................................... ☐
No ........................................... ☐ —> 77

76. How would you compare the following aspects of your current teaching position to the other position you were offered? (If you were offered more than one other position, compare your current position to the position you most seriously considered.) (Mark one answer on each line)

Cannot Compare | Better in Other Outside Position | About the Same | Better in Current Teaching Position
--- | --- | --- | ---
Salary ........................................... ☐ ☐ ☐
Potential for salary growth .................................... ☐ ☐ ☐
Opportunity for professional advancement ............ ☐ ☐ ☐
Job security ........................................... ☐ ☐ ☐
Job benefits ........................................... ☐ ☐ ☐
Autonomy or control over own work .................... ☐ ☐ ☐
Intellectual challenge .................................... ☐ ☐ ☐
Emotional rewards ........................................... ☐ ☐ ☐
Professional prestige .................................... ☐ ☐ ☐
Opportunities for professional exchange ............ ☐ ☐ ☐
Continued growth and learning .................... ☐ ☐ ☐
Safety of environment .................................... ☐ ☐ ☐
General work conditions .................................... ☐ ☐ ☐ —> 80

SECTION 5: YOUR BACKGROUND

77. Did you graduate from a high school in Indiana? (Mark one answer)

Yes ........................................... ☐
No ........................................... ☐

78. Did you graduate from a college in Indiana? (Mark one answer)

Yes ........................................... ☐
No, I graduated from a college in another state ....... ☐
No, I did not graduate from college .................... ☐ —> 83

79. What is your highest attained degree? (Mark one answer)

Associate ........................................... ☐
Bachelor’s ........................................... ☐
Master’s ........................................... ☐
Specialist or six-year certificate .................... ☐
Ed D ........................................... ☐
Ph D ........................................... ☐

80. In what year did you receive your bachelor’s degree and your master’s degree? (Mark ‘NA’ if you do not have the degree listed.)

Bachelor’s Degree: 19 ☐ ☐ ☐
Master’s Degree: 19 ☐ ☐ ☐

81. Did your undergraduate coursework fully prepare you to receive an Indiana teaching certificate? (Mark all that apply)

Yes ........................................... ☐
No, I lacked subject area coursework .................... ☐
No, I lacked education coursework .................... ☐
No, I lacked student teaching experience ........... ☐
82. Based on a four-point scale (with A = 4 and D = 1), in what range were your college grades? (Mark one answer)

3.75 - 4.00 ........................................... 
3.25 - 3.75 ........................................... 
2.75 - 3.25 ........................................... 
2.25 - 2.75 ........................................... 
1.75 - 2.25 ........................................... 
1.75 or below ....................................... 

83. In what year did you receive your first Indiana state teaching certificate? Count provisional, but not emergency certificates. (Mark “NA” next to year if you have never held an Indiana teaching certificate.)

199 

84. Compared to the best teacher you know, how would you rate your current teaching ability? (Mark one answer)

Excellent ........................................... 
Above average ..................................... 
Average ............................................ 
Below average .................................... 
Well below average ................................

85. What is your base teaching contract salary (excluding extracurricular duties)? (Round the the nearest $1,000)

$ ....................... .00 

86. In addition to your base teaching salary, how much do you earn under supplemental school contracts during the school year (e.g., for serving as coach, band instructor, etc.)? (Mark “NA” if you have no supplemental school contracts.)

$ \[ \text{__________________________} \] .00 \[ \text{__________________________} \] 

87. During the school year, do you hold another part-time or full-time job outside of your school corporation? (Mark one answer)

Yes ................................................. 
No ................................................. \[ \text{GO TO 89} \]

88. How much do you earn from employment outside your school corporation during the school year? (Round to nearest $1,000)

$ \[ \text{__________________________} \] .00 

89. Do you expect to hold a paying job this summer? (Mark all that apply)

Yes, in my school corporation .......................... 
Yes, outside of my school corporation ............... \[ \text{GO TO 91} \]

Unsure ................................................. 
No .................................................... 

GO TO 91
90. What is your expected income from this summer work?

$ 0.00

91. Do you have a spouse that is employed either part-time or full-time? (Mark one answer)

Yes, my spouse is employed full-time .
Yes, my spouse is employed part-time .
No, my spouse is not employed .
No, I am not married .

GO TO 93

92. What is your spouse’s annual salary?
(Round to the nearest $1,000)

$ 0.00

93. What is your total family income, from all sources?
(Round to the nearest $1,000)

$ 0.00

94. HOW MANY children do you have who are:

- 5 years old or under
- Over 5

95. Please use the space below to give us any suggestions you have for improving either the job search process or a teacher’s first year in an Indiana public school.

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

THIS COMPLETES THE QUESTIONNAIRE. THANK YOU FOR ASSISTING US IN THIS IMPORTANT RESEARCH. YOUR TIME AND EFFORT ARE MUCH APPRECIATED.

Please return the completed questionnaire as soon as possible to Data Recognition Corporation in the postage-paid envelope provided.
Appendix B
MULTIVARIATE MODELS

The multivariate model allows us to measure the "net" effect of individual variables on an outcome (decision) of interest, such as teachers' satisfaction or plans to remain in teaching, while controlling for the effects of other variables. An appropriate multivariate technique in discrete choice models is the logistic model, which bounds the dependent variable between 0 and 1. It can thus be used to predict the proportion of respondents who choose a given response.

Empirically, we summarize the decision as a dichotomous dependent variable that categorizes individuals into two groups—those who have a favorable outcome or make a favorable decision (e.g., those satisfied, or those who plan to remain in teaching), and those who have an unfavorable outcome or decision (e.g., those not satisfied, or those who plan to leave teaching). The outcome variable is defined as:

\[ Y_i = \begin{cases} 
0, & \text{if individual } i \text{ has an unfavorable outcome,} \\
1, & \text{if individual } i \text{ has a favorable outcome.} 
\end{cases} \]

This model relates the outcome of the \( i \)th individual, \( Y_i \), to a vector of characteristics for that individual, \( X_i \). The assumed relationship is:

\[
P(X_i) = \left( P(Y_i = 1 | x_i) \right) = \frac{1}{1 + e^{-(\beta_0 + \sum_j \beta_j X_{ij})}}
\]

where

\[ P(X_i) = \text{probability of favorable outcome for a specific individual } i, \]
\[ X_{ij} = \text{values of the explanatory variable } j \text{ for individual } i, \]
\[ \beta_j = \text{estimated coefficients for the } X_j, \text{ and} \]
\[ \beta_0 = \text{estimated constant term.} \]

The logistic regression coefficients for the multivariate analyses we performed are listed in tables in the text. However, because these coefficients sometimes do not have an easy interpretation, we occasionally transformed them into outcome probabilities, which are
presented in the body of the text accompanying the tables. These probabilities are calculated from the regression coefficients using the equation shown above and represent a convenient and useful summary of the regression model effects.
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