This study on induction practices analyzed data collected from collaborative research on more than 150 beginning teachers in Colorado, Kentucky, Michigan, New Mexico, North Carolina, Oregon, Texas, and West Virginia. This paper documents and describes the organization, structure and activities of eight induction programs; identifies and discusses similarities and differences of specific induction practices across sites; reports what beginning teachers perceive to be the effects of these practices on their teaching and professional development; identifies those areas related to teacher induction that beginning teachers nominate as needing additional attention; and examines and discusses the implications of these findings for future program development. Background information on the collaborative study and a list of the research questions used in the study are presented. Following an analysis of the study findings, the paper concludes with a section discussing the program development implications derived from the findings and proposing a new model for developing induction programs. Charts and references are included. (JD)
Assessing the Impact of Teacher Induction Programs:
Implications for Program Development

Leslie Huling-Austin
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and

Sheila C. Murphy
Seattle, Washington

Presented at the annual meeting of the American Educational Research Association
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Session 9.45

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Assessing the Impact of Teacher Induction Programs: Implications for Program Development

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Seattle, Washington

The importance of beginning teacher induction is increasingly being recognized and substantial amounts of educational resources are being devoted to induction programs designed to assist and assess novice teachers. For example, state mandated induction programs have been implemented in 11 states, are being piloted in six more states, and are in the planning in an additional 15 states (Hawk & Robard, 1987). Local programs are also becoming increasingly more prevalent across the nation. Also, interest in teacher induction has become so great that several major journals have devoted entire issues to the topic including Educational Leadership (November, 1985), Journal of Teacher Education (January-February, 1986), Kappa Delta Pi Record (July-August, 1986) and Action in Teacher Education (Winter, 1987). The ERIC Clearinghouse for Teacher Education (1986) has recently produced three digests related to beginning teachers under the titles of "Components of Induction Programs," "Teacher Mentoring," and "Current Developments in Teacher Induction Programs."


2 The authors wish to thank all of the participating researchers in the 27 sites across the nation included in the Collaborative Study of Teacher Induction in Diverse Contexts, with special appreciation for those from the eight sites included in the data analysis for this paper.

3 The research described herein was conducted under contract with the Office of Educational Research and Improvement (OERI). The opinions expressed are those of the authors and do not necessarily reflect the position or policy of the OERI, and no endorsement by the OERI should be inferred.
The Association of Teacher Educators, recognizing the growing importance of the teacher induction issue, launched a three-year National Commission on the Teacher Induction Process to serve from 1985-1988. This body, in conjunction with its national and regional meetings, has sponsored a series of open hearings and presentations devoted to the discussion of teacher induction issues and recently produced a monograph on teacher induction (Brooks, 1987).

In spite of the increased amount of activity related to teacher induction nationwide, efforts to assess the impact of this particular educational reform have been few and limited. Griffin (1985) in his review of research on induction concluded that by and large the bulk of research is of a descriptive nature. A number of studies of this type contribute positively to our understanding of the needs and concerns of beginning teachers (Bolam, Baker, McMahon, Davis & McCabbe, 1977; Grant and Zeichner, 1981; Howey & Bents, 1979; Huling-Austin, Barnes & Smith, 1985; McCaleb, 1984; McDonald, 1980; Newberry, 1977, Ryan, 1970; Tisher, 1978; Zeichner, 1983; Veenman, 1984). Fewer studies have been conducted which investigate the effects of specific induction interventions, and very little research has been conducted to test the cumulative effects of specific induction programs (McCaleb, 1985).

Zeichner (1982) points out that attempts to influence the performance of beginning teachers should recognize the importance of the conditions of the workplace and recommends viewing induction as a reciprocal process between individuals and institutions. Only a few studies have begun to look at the influence of context on the teacher induction process (Stiegelbauer, 1986; Murphy & Huling-Austin, 1987). While the exact nature of the influence of context on the teacher induction process is not fully understood, undoubtedly, the influence is a powerful one. With these factors in mind, a
key driving question for current induction research and program evaluation is "What induction practices work best under what conditions?" (Huling-Austin, 1987).

As a first step toward addressing this question, a collaborative study of Teacher Induction in Diverse Contexts was undertaken by the Research and Development Center for Teacher Education at the University of Texas at Austin and 27 research sites across the nation. During the 1985-86 school year, site researchers, using a study design and data collection procedures and instruments developed through a collaborative process, collected data in their settings and contributed it to a national data base compiled at the Center. Included in the total study were more than 500 beginning teachers assigned to more than 350 schools located in more than 100 school districts across the country. For this paper, data were analyzed from more than 150 beginning teachers in ten districts in eight states. The sites which are geographically dispersed across the U.S. were primarily selected because they represent diverse types of induction programs.

Objectives of This Paper

This paper addresses the following objectives:

1) to document and describe the organization, structure and activities of eight diverse induction programs,

2) to identify and discuss similarities and differences of specific induction practices across sites,

3) to report what beginning teachers perceive to be the effects of these practices on their teaching and their professional development,

4) to identify those areas related to teacher induction which beginning teachers nominate as needing additional attention, and

5) to examine and discuss the implications of these findings for future program development.
Background of the Collaborative Study

The Collaborative Study of Teacher Induction in Diverse Contexts grew from the Teacher Induction research conducted at the Research and Development Center for Teacher Education at The University of Texas at Austin. The Teacher Induction Study (TIS), a policy into practice study of two state-mandated teacher induction programs, was conducted during the 1983-84 school year (Hoffman, Griffin, Edwards, Paulissen, O'Neal & Barnes, 1985). Center staff then launched the Model Teacher Induction Project (MTIP), a study to design, implement and test a first-year teacher project based on induction practices suggested by research (Huling-Austin, Putman and Galvez-Hjornevik, 1986). The MTIP was field tested during the 1984-85 school year in a suburban district near Austin with a small sample of beginning middle school teachers.

The MTIP Satellite Network. In conjunction with the MTIP, the Center undertook an effort to organize and coordinate a group of institutions from across the nation working in the area of teacher induction to serve in an advisory capacity to the MTIP and to begin to develop a working network to foster teacher induction programs, practices and research. This group was known as the MTIP Satellite Network.

Approximately 30 institutions representing school districts, universities, state departments of education, regional education service agencies and professional organizations were selected to participate in the original MTIP Satellite Network. Representatives of these institutions took part in network conferences held in Austin in November, 1984, and April 1985 (Huling-Austin, Putman, Edwards & Galvez-Hjornevik, 1985). Network members also participated in a number of other activities such as presenting sessions at various national meetings and working in conjunction with the Association of Teacher Educators' National Commision on the
Teacher Induction Process. At the April network conference, participants decided to conduct a collaborative research project during the 1985-86 school year. Network members believed that such a project would be worthwhile because it would 1) provide the opportunity for a national teacher induction study to be conducted in a large number of diverse settings with a large sample of first-year teachers, and 2) provide participants with the opportunity to conduct research individually and in collaboration with their colleagues and in conjunction with a national R&D Center.

The Study Design. During the summer, the study was designed by a team consisting of Center staff members and five representatives of the network. Three major considerations guided the study design. First, the study design should take full advantage of the unique opportunity to collect data from a variety of sites and a large number of first-year teachers. Second, the data collection had to be manageable for site researchers, both those participating only in this study and those participating in the study as one portion of their total research endeavor. Third, the research questions needed to focus across sites as well as provide sufficient single-site information to be of value to the individual researcher. The study was designed so that each participating researcher would have a self-contained study of his/her own site plus contribute to the study's national database which was compiled at the Center. The research questions developed for the study are shown in Figure 1.

Twenty-seven institutions representing 18 states participated in the collaborative study. Each site researcher collected data in his/her own site using questionnaires, interviews, forms, etc. supplied by the Center and then submitted a copy of the data to the Center where it was added to the study's national data base.
Figure 1
Induction Network Collaborational Research Project
Research Questions (June 7, 1985)

A. Individual Sites

1. What are FYI's [first year teachers] perceptions of students, themselves as teachers, the school system in which they are teaching and the teaching profession? (What are their perceptions of their teaching practices?)*

2. What needs/concerns do FYI's have? How do they change over time?

3. How do FYI's perceive induction programs to influence their teaching practices?

4. What is the retention rate of FYI's who participated in induction programs?

5. How are ST's [support teachers] selected, trained, evaluated and compensated? What are the roles of ST's? (What is the nature [process, content, effects] of the ST/FYT interactions?)*

B. Across Sites

6. What are the similarities and differences between induction programs conducted in various settings? What factors account for these differences?

7. In what ways do assistance interventions delivered to FYI's vary across settings, and for what reasons?

8. How does the training, selection, role, evaluation and compensation of ST's vary across sites?

9. What influence does context have on needs/concerns of FYT's?

*Questions in parentheses are likely only applicable in sites where the researcher interviews FYT's.
Figure 2 is a graphic display of the data collection design. Because of the diverse needs of and additional demands on Network members, two levels of data collection were designed into the study. All participating researchers were required to collect "core" data through the completion of forms and questionnaires. In addition, site researchers were encouraged to participate in more intensive data collection through interviewing a select number of first-year teachers. (All eight of the sites included in the analysis for this paper participated in the extended data collection.) Site researchers could also choose to collect additional data in their own site in conjunction with the collaborative study effort. Figure 3 is a map which indicates the 27 participating sites and shows the eight sites included in the data analysis for this paper.

Data Sources. The data sources used in the collaborative study and analyzed for this paper included:

1) personal and professional background information on participating beginning teachers,

2) district demographic information,

3) detailed narrative descriptions of each teacher induction program,

4) on-going logs compiled by site researchers about induction practices and activities conducted throughout the year,

5) transcribed interviews with beginning teachers conducted at the beginning, middle and end of the school year,

6) an end-of-year questionnaire completed by beginning teachers about their teaching experiences and their experiences in the induction program in which they participated.

Limitations of the Study

The limitations of this study are many. However, before elaborating on these, it is important to point out that this study in itself was an
Figure 2
Data Collection Schedule

<table>
<thead>
<tr>
<th></th>
<th>Beginning of Year (first 2 weeks)</th>
<th>Middle of Year (first 2 weeks after break for winter holidays)</th>
<th>End of Year (last 3 weeks)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Core Data</strong> (&lt;br&gt;(to be collected at all sites))</td>
<td>SoC&lt;br&gt;FYT Information form&lt;br&gt;Information form for researcher to complete</td>
<td>SoC&lt;br&gt;Intervention Documentation Form</td>
<td>SoC&lt;br&gt;Intervention Documentation Form</td>
</tr>
<tr>
<td><strong>Expanded Data</strong> (&lt;br&gt;(to be collected at sites where researcher chooses to interview FYT))</td>
<td>FYT Interview</td>
<td>FYT Interview</td>
<td>FYT Interview</td>
</tr>
<tr>
<td><strong>Other Data Collection Possibilities</strong> (&lt;br&gt;(to be collected by individuals—will not be part of the shared data))</td>
<td>Support Teacher Interviews, Classroom Observations, FYT Journals, etc.</td>
<td>Support Teacher Interviews, Classroom Observations, FYT Journals, etc.</td>
<td>Support Teacher Interviews, Classroom Observations, FYT Journals, etc.</td>
</tr>
</tbody>
</table>
Figure 3
Participating Study Sites

Key:

- indicates participating sites
- indicates sites included in data analysis for this paper
- - - - -

experiment—a test of whether a group of educators from across the nation, each with a demanding full-time job, could successfully participate in a year-long study which had as its only reward the professional satisfaction of being involved in such a joint endeavor. The study was unique in that never before had a collaborative teacher induction study involving this many sites across the nation been conducted. Because the study was only a very small piece of a total scope of work being undertaken by the Research and Development Center for Teacher Education, very few Center resources were available to support the effort. Because of these constraints, it was necessary to establish the "rules" for the study as such: "The Center would send out data collection packets at the appropriate points during the year."
It was the responsibility of each site researcher to collect the data and submit it to the Center by the agreed upon deadline. No follow-up reminders or phone calls would be made; no attempt would be made to "run down" incomplete data.

As might be expected, some sites did better than others in submitting complete data sets. The sites selected for inclusion in this paper were among the most complete in the data set but even so, small portions of data are missing. No attempt was made to eliminate those subjects on whom there was incomplete data; all data submitted were analyzed.

A second limitation of the study is that there is extreme variation in the number of teachers included in the study in the various sites. The study was designed to allow as many people as possible to participate by allowing them to determine their sample size based on their local situation and resources. This variation in across-site sample size prohibits, for all practical purposes, the use of statistical procedures to compare data across sites. A third limitation is that as authors of this paper, we did not personally collect any of this data so we do not have the benefit of "knowing" the sites or using our best clinical judgment to interpret the data.

Undoubtedly, the biggest obstacle to overcome related to this study is the fact that the Research and Development Center for Teacher Education closed in August, 1986, after losing its long-standing federal funding. Originally, the study was designed to have a year of data analysis and reporting to be coordinated and supported by R&DCTE. Without this structure and support, only minimal data analyses are occurring and much less will be reported out from the study than was originally planned. Finally, as a result of the Center's closing, we as authors have been faced with still another obstacle of being more than 2,000 miles apart, operating out of Austin, Texas and Seattle, Washington--an experience which has
taught us new ways of collaborating and the importance of planning ahead!

Even with all of the limitations and the unexpected difficulties associated with this study, we believe it was a successful "experiment" and is an important study. With the above limitations acknowledged, let us proceed on to our findings without further ado.

Findings

In this section, findings are reported as they relate to the objectives of this paper. Findings are organized into four sections: Description of Programs and Participants, Similarities and Differences in Program Practices, Perceived Effects of Practices on Beginning Teachers, and Areas In Need of Additional Attention. In each section, the data sources used are identified and the data analysis methods used are explained. Following the findings section, the paper concludes with a section in which the program development implications derived from these findings are discussed and a new model for developing induction programs is proposed.

Description of Programs and Participants. The induction programs included in the analysis for this paper represent the states of Colorado, Kentucky, Michigan, New Mexico, North Carolina, Oregon, Texas, and West Virginia. These sites were selected because they represent substantially different types of induction programs, they are geographically dispersed across the United States, and the data submitted in these sites were among the most complete sets in the data base. Brief descriptions of each program derived from the narrative program descriptions and logs of induction practices and activities follow:

Colorado--The Colorado program was sponsored by a school district of 77,000 students located in a suburban area outside of Denver. For eight years prior to the 1985-86 school year, the district had provided some support to new teachers through the district's staff academy. Elementary teachers received a half-day of "getting started" help prior to the opening of school provided by department chairpersons, team leaders, and other designated
persons. During the first few months of school, new teachers attended three full-day inservices to familiarize them with the district's curriculum guides, planning and management of curriculum, and instructional strategies. Additional inservice related to the curriculum were available during their second semester and second year for new teachers who choose to participate. Secondary teachers received support in content areas through department chairpersons, curriculum specialists and building principals. New features added to the program during the 1985-86 school year included a welcome breakfast hosted by the district and the teacher's association and optional classroom management inservices for new teachers held on three different Saturdays. Also, for the first time in 1985-86, in one area of the district, new teachers were assigned support teachers who have received approximately 15 hours of training in consultative skills for working with new teachers. These support teachers had one day of release time to work with the new teachers and were compensated for after-school time spent working with the new teachers. In the remainder of the district, principals were allotted one-half day release time per new teacher in order to either release the new teacher or bring in an experienced teacher to work with the new teacher.

Kentucky--This program was a collaborative endeavor of a school district (enrollment 30,331) and a university and was based on the state's mandated program, The Kentucky Beginning Teacher Internship Program, which was in its first year of implementation. The program was designed to provide supervision, assistance and assessment of first-year teachers and out-of-state teachers with less than five years of experience. New teachers entered as intern with a one-year certificate of eligibility. Upon successful completion of the internship, the beginning teacher was granted provisional certification for four more years. A beginning teacher committee composed of the principal, a resource teacher, and a teacher educator was assigned to work with the intern. Each of these committee members observed the intern and met as a committee at least three times throughout the year. The committee decided whether or not to recommend the intern for provisional certification. The major provider of assistance to the intern was the resource teacher who is required to spend at least 70 hours working with the intern, at least 20 of which was spent in the intern's classroom. The Florida Performance Measurement System was the instrument used by the committee to evaluate the performance of beginning teachers.

Michigan--In this site a university faculty member collected data from three first-year teachers who were employed in a school district of approximately 14,000 students. There was no induction program provided and the teachers received no formal support.

New Mexico--This cooperative program involved a large school district of 77,150 students and a university. The program was designed to offer systematic support to all beginning elementary teachers. A personnel exchange arrangement placed 27 University graduate interns as first-year elementary teachers and released 9 veteran teachers to work full-time as clinical support teachers for the graduate interns and other beginning teachers at no
additional cost to the school district. The interns were fully certified first-year teachers who are working on master’s degrees in teaching. Through the program they received one-year teaching experience and exposure in the district, a fellowship from the university, tuition waivers for two summers and two semesters, and credit towards their degree. The clinical support teachers provided consultative and non-evaluative support on specific issues of concern to first-year teachers. This support included in-classroom teaching demonstrations, materials collection, emotional and instructional support, and in-service workshops. The support teachers served approximately 180 beginning teachers in 73 elementary schools. University workshops and courses were offered to all graduate interns. Other beginning teachers were also encouraged to participate in workshops that address particular needs of first-year teachers. University credit was offered for the workshops each semester for a nominal fee.

North Carolina—This cooperative program involved a large school district of 72,000 students and a university and was based on the state’s mandated program, The Initial Certification/Quality Assurance Program which was in its second year of operation. In the program, each beginning teacher had a support team that included the principal, the assistant principal for instruction, and a mentor teacher. Prior to the beginning of the year, mentor teachers received a half-day of initial training in working with the adult learner, conferencing skills, and evaluation techniques. In addition, mentor teachers continued to receive training throughout the school year. First-year teachers began their year with a three-day orientation and were also required to participate in 45 hours of training in effective teaching, classroom management and curriculum content. Throughout the year, first-year teachers were observed by and conferenced with their support teams. Additional inservice was available for first-year teachers who were identified to have a specific need.

Oregon—in this effort a university faculty member worked with three small school districts (each under 4,000 students) and collected data from first-year teachers. Two of the districts had no formal induction program. The largest district (enrollment 3,859) had had an induction program for four years. The program was a part of a package on recruitment, selection, induction and maintenance of staff. The general focus of the program was on communicating the school and district norms and on assisting new hires. Program features included new staff orientation, weekly “survival” conferences between the new teacher and the support teacher, and new teacher seminars for college credit on teaching strategies, peer support coaching, etc. A professional growth plan was required for all teachers and participants evaluated the induction program both informally and through a formal written evaluation.

Texas—This program was conducted by a mid-size school district of approximately 11,000 students. The district had assigned two master teachers to work full-time with first-year teachers and other new hires. Prior to the opening of school, first-year teachers received two extra days of orientation and inservice and
they were visited individually by a representative from the personnel office during the first two months of school. They were also assigned a “buddy teacher” by their principal. Throughout the year, a supervisory staff of ten central office consultants provided assistance to new teachers upon request by the teacher or principal. This assistance included model teaching, resource information, materials acquisition, and formal and informal evaluations. The personnel department also offered advanced academic training for credit for teachers who choose to participate.

West Virginia--This program was a cooperative venture involving a mid-size school district of 7,220 students and a regional educational service agency. The induction program provided assistance and training over a three-year period and was aimed at teachers new to the profession and those new to the system. The first year focused primarily on orientation to the system and school coupled with support for the new teacher and included: advise, counsel and instruction by a mentor who was a content supervisor; orientation to the system, the school, and instructional content; conferencing with principal; and visitation by central office specialists. The second and third years, clinical in nature, are based on effective teaching/schools research, classroom management techniques, and information about the system. A sequence of seminars are conducted throughout the three year training period.

Figure 4 summarizes many of the demographic and operational features of these programs. The information represented in this figure was reported by each site in a “District/System Descriptive Information” form. As the figure indicates, the 10 districts located in the 8 states range in size from 915 to more than 77,000 students (mean size = 29,662). The districts tend to cluster in size into four categories:

- <5,000--the three Oregon districts;
- 5,000 - 15,000--Michigan, Texas and West Virginia;
- 30,000--Kentucky; and
- 70,000+--- Colorado, New Mexico and North Carolina.

All community types are represented in the ten sites. Three of the sites are located in mid-size cities, three in suburban areas, and two in large cities. The other two are classified as "rural" and "rural/suburban." Each site reported the percentage of students served from a low socio-economic status. This figure ranged from a low of 5% to a high of 65%,
### Figure 4
Demographic and Program Information on Participating Districts

<table>
<thead>
<tr>
<th>District Demographics</th>
<th>CO</th>
<th>KY</th>
<th>MI</th>
<th>NM</th>
<th>NC</th>
<th>OR</th>
<th>TX</th>
<th>WV</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student Enrollment</td>
<td>77,000</td>
<td>30,331</td>
<td>14,056</td>
<td>77,150</td>
<td>72,000</td>
<td>3,245</td>
<td>3,859</td>
<td>915</td>
</tr>
<tr>
<td>Community Type (Rural, Mid-size City, Suburban, Large City)</td>
<td>S</td>
<td>S</td>
<td>M</td>
<td>L</td>
<td>L</td>
<td>S</td>
<td>R/S</td>
<td>R</td>
</tr>
<tr>
<td>Percent of Low SES Students</td>
<td>5</td>
<td>37</td>
<td>15</td>
<td>66</td>
<td>25</td>
<td>40</td>
<td>18</td>
<td>30</td>
</tr>
<tr>
<td>Number of FYS Hired in 1985-86</td>
<td>53</td>
<td>21</td>
<td>13</td>
<td>61</td>
<td>58</td>
<td>9</td>
<td>4</td>
<td>3</td>
</tr>
</tbody>
</table>

### Teacher Induction Program

<table>
<thead>
<tr>
<th>Number of FYS in Study</th>
<th>CO</th>
<th>KY</th>
<th>MI</th>
<th>NM</th>
<th>NC</th>
<th>OR</th>
<th>TX</th>
<th>WV</th>
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<tbody>
<tr>
<td>33</td>
<td>20</td>
<td>3</td>
<td>52</td>
<td>58</td>
<td>3</td>
<td>2</td>
<td>3</td>
<td>6</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Does formal induction program exist? (Yes, No)</th>
<th>Y</th>
<th>Y</th>
<th>N</th>
<th>Y</th>
<th>Y</th>
<th>N</th>
<th>Y</th>
<th>N</th>
<th>Y</th>
<th>Y</th>
</tr>
</thead>
<tbody>
<tr>
<td>Is program mandated? (Yes, No)</td>
<td>N</td>
<td>Y</td>
<td>N</td>
<td>N</td>
<td>Y</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>Is program collaborative--involving 2 or more agencies? (Yes, No)</td>
<td>N</td>
<td>Y</td>
<td>N</td>
<td>Y</td>
<td>Y</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>Y</td>
</tr>
</tbody>
</table>

### Program Features (Required, Optional, None)

<table>
<thead>
<tr>
<th>Support Teacher</th>
<th>O</th>
<th>R</th>
<th>N</th>
<th>R</th>
<th>R</th>
<th>N</th>
<th>R</th>
<th>N</th>
<th>R</th>
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</thead>
<tbody>
<tr>
<td>Support Team</td>
<td>N</td>
<td>R</td>
<td>N</td>
<td>N</td>
<td>R</td>
<td>N</td>
<td>N</td>
<td>O</td>
<td>N</td>
<td>R</td>
</tr>
<tr>
<td>Orientation Program</td>
<td>R</td>
<td>R</td>
<td>N</td>
<td>O</td>
<td>R</td>
<td>N</td>
<td>R</td>
<td>N</td>
<td>O</td>
<td>R</td>
</tr>
<tr>
<td>Inservice/Staff Development</td>
<td>R</td>
<td>O</td>
<td>N</td>
<td>O</td>
<td>R</td>
<td>N</td>
<td>R</td>
<td>N</td>
<td>R</td>
<td>R</td>
</tr>
<tr>
<td>Individual Professional Development Plan</td>
<td>N</td>
<td>O</td>
<td>N</td>
<td>N</td>
<td>R</td>
<td>M</td>
<td>R</td>
<td>N</td>
<td>N</td>
<td>R</td>
</tr>
</tbody>
</table>
with the average being 28%. The range of new teachers hired by each of the
districts was 3 to 61. A similar range was found in the number of new
teachers from whom data were collected. In one district, only two teachers
participated in the study, while in the North Carolina district, 58 teachers
participated in data collection.

Seven of the 10 sites had formal teacher induction programs in
operation. Only the Kentucky and North Carolina programs were
state-mandated. Four of the ten programs were collaborative, and the other
six were operated independently by local school systems. The Kentucky, New
Mexico and North Carolina programs were sponsored by school districts and
universities, while the West Virginia program involved a school district and
a regional education service agency. Therefore, considering the intent,
organization and content of the programs, they seem to cluster into the
following four categories:

State-Mandated Programs--Kentucky and North Carolina
Collaboratively Operated Programs--New Mexico and West
Virginia
Local District Operated Programs--Colorado, Oregon Site 2, and
Texas
No Formal Program--Michigan and Oregon Sites 1 and 3

Figure 5 shows demographic information on the first-year teachers
enrolled in each of the induction programs described above. The 168
first-year teachers from these eight sites are very similar demographically
to the total sample of 576 teachers included in the overall collaborative
study. As Figure 4 indicates, approximately three-fourths of the teachers are
female and 60% are under the age of 25 indicating that they have probably
entered the teaching profession directly from their college program. Thirty
percent of the first-year teachers are older than 25 and probably have had
<table>
<thead>
<tr>
<th>State</th>
<th>Male (N)</th>
<th>Female (N)</th>
</tr>
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<tbody>
<tr>
<td>MI</td>
<td>13</td>
<td>17</td>
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<tr>
<td>WI</td>
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<tr>
<td>TX</td>
<td>21</td>
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<tr>
<th>Degree</th>
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<table>
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<th>Level of Assignment</th>
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<th>TX</th>
<th>MI</th>
<th>WI</th>
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<td>13</td>
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<tr>
<td>Intermediate (4-6)</td>
<td>22</td>
<td>22</td>
<td>17</td>
<td>15</td>
<td>12</td>
<td>13</td>
</tr>
<tr>
<td>Middle School (7-8)</td>
<td>22</td>
<td>22</td>
<td>17</td>
<td>15</td>
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<td>13</td>
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<tr>
<td>High School (9-12)</td>
<td>22</td>
<td>22</td>
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<td>15</td>
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<table>
<thead>
<tr>
<th>Age</th>
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<th>Female</th>
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</thead>
<tbody>
<tr>
<td>Under 25</td>
<td>22</td>
<td>28</td>
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<tr>
<td>26-35</td>
<td>33</td>
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<td>36-45</td>
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<td>28</td>
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<tr>
<td>46+</td>
<td>33</td>
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<table>
<thead>
<tr>
<th>Age</th>
<th>Male</th>
<th>Female</th>
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</thead>
<tbody>
<tr>
<td>Under 25</td>
<td>22</td>
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<td>26-35</td>
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<td>36-45</td>
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<td>28</td>
</tr>
<tr>
<td>46+</td>
<td>33</td>
<td>28</td>
</tr>
</tbody>
</table>
some other job experiences.

In five of the eight sites all of the first-year teachers are Anglo. North Carolina is the only site reporting black first-year teachers in their sample, while Hispanic first-year teachers are represented only in Colorado and New Mexico. However, in New Mexico, more than one-third of the first-year teachers are Hispanic. The fact that five of the eight sites report no minority first-year teachers is indicative of the nationwide pressing need to attract more minority candidates into the teaching profession.

Teachers of all different grade levels are represented in the total sample. Six of the eight sites have both elementary and secondary first-year teachers included; Michigan includes only secondary teachers and New Mexico includes only elementary teachers. All of the teachers included are college graduates with ninety percent having bachelors degrees and ten percent having advanced degrees.

**Similarities and Differences in Program Practices.** Two data sources are particularly useful in comparing program practices. First is the portion of the District Demographic Questionnaire related to program features (see Figure 4, page 15). In regard to program features, the support teacher was the most commonly found required component, while the individual professional development plan was the least commonly found program feature. Half of the sites had support teams (either required or optional) and half did not. All of the sites, with the exception of the three sites that had no formal induction programs in operation, provided an orientation program and in-service/staff development for beginning teachers.

A second detailed source of information about how specific program practices varied across sites was a section of the End-of-Year Questionnaire on which first-year teachers reported the types of assistance they received from support teachers. In the final interview, first-year teachers were
asked who had been the most helpful to them during the year. In the sites that had a formal support teacher assigned to first-year teachers, the support teacher was overwhelmingly nominated as being the one who had provided the most help. When there was no formal support teacher, first-year teachers most often reported that they relied most heavily on “the teacher across the hall” or other teachers who teach the same subject or grade level. Mentioned much less frequently were administrators, department heads, spouses and friends.

On the End-of-Year Questionnaire, first-year teachers were provided a list of 14 areas and asked to check those in which they had received assistance from their support teachers. (Some of the first-year teachers who did not have a formal support teacher responded to the item in terms of someone they considered to be their informal support teacher; others left the item blank.) Figure 6 indicates those areas in which first-year teachers received help from their support teachers. It is interesting to note, that in almost all sites, support teachers provided some assistance in almost every area. This finding substantiates the very diversified role of the support teacher and makes clear the number of areas in which the first-year teacher would have to fend for himself/herself when no support teacher is available. As Figure 6 indicates, the type of assistance most consistently mentioned was “someone to talk to/listen to,” followed by “locating materials” and “help with clerical work related to district policies and procedures.” Other areas most frequently mentioned were “lesson planning,” “classroom organization,” and “discipline.”

After indicating with a checkmark those areas in which they had received assistance from the support teacher, first-year teachers were asked to place an asterisk (*) by those areas in which they received the most help. Figure 7 indicates those areas in which first-year teachers indicated
### Areas in Which First-Year Teachers Received Assistance From Support Teachers

<table>
<thead>
<tr>
<th>Area</th>
<th>CO (N=15)</th>
<th>KY (N=19)</th>
<th>MI (N=2)</th>
<th>NM (N=52)</th>
<th>NC (N=50)</th>
<th>OR (N=3)</th>
<th>TX (N=6)</th>
<th>WV (N=3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Answering questions about clerical work related to district/system policies and procedures</td>
<td>1.5 (33)</td>
<td>7.5 (79)</td>
<td>N/A</td>
<td>3 (69)</td>
<td>2.5 (72)</td>
<td>2 (100)</td>
<td>1.5 (63)</td>
<td>4.5 (67)</td>
</tr>
<tr>
<td>Becoming familiar with subject matter</td>
<td>7.5 (20)</td>
<td>10.5 (74)</td>
<td>N/A</td>
<td>13.5 (23)</td>
<td>12.5 (28)</td>
<td>9.5 (50)</td>
<td>11 (33)</td>
<td></td>
</tr>
<tr>
<td>Classroom organization</td>
<td>7.5 (20)</td>
<td>5 (84)</td>
<td>N/A</td>
<td>5 (54)</td>
<td>4 (68)</td>
<td>5 (67)</td>
<td>11 (33)</td>
<td></td>
</tr>
<tr>
<td>Dealing with students' individual differences</td>
<td>12.5 (13)</td>
<td>10.5 (74)</td>
<td>N/A</td>
<td>9 (42)</td>
<td>7.5 (62)</td>
<td>9.5 (50)</td>
<td>11 (33)</td>
<td></td>
</tr>
<tr>
<td>Establishing realistic expectations for student work and behavior</td>
<td>7.5 (20)</td>
<td>5 (84)</td>
<td>N/A</td>
<td>9 (42)</td>
<td>9.5 (44)</td>
<td>6 (33)</td>
<td>9.5 (50)</td>
<td>11 (33)</td>
</tr>
<tr>
<td>Grading and evaluation of student progress</td>
<td>7.5 (20)</td>
<td>10.5 (74)</td>
<td>N/A</td>
<td>11 (35)</td>
<td>11 (40)</td>
<td>5 (67)</td>
<td>4.5 (67)</td>
<td></td>
</tr>
<tr>
<td>How to conduct parent conferences</td>
<td>12.5 (13)</td>
<td>13 (68)</td>
<td>N/A</td>
<td>5 (54)</td>
<td>12.5 (28)</td>
<td>9.5 (50)</td>
<td>4.5 (67)</td>
<td></td>
</tr>
<tr>
<td>Locating materials</td>
<td>1.5 (33)</td>
<td>7.5 (79)</td>
<td>N/A</td>
<td>2 (88)</td>
<td>2.5 (72)</td>
<td>4 (67)</td>
<td>5 (67)</td>
<td>4.5 (67)</td>
</tr>
<tr>
<td>Motivating students</td>
<td>7.5 (20)</td>
<td>5 (84)</td>
<td>N/A</td>
<td>7 (46)</td>
<td>9.5 (44)</td>
<td>12.5 (33)</td>
<td>4.5 (67)</td>
<td></td>
</tr>
<tr>
<td>Planning lessons (materials, what to teach, how to teach it)</td>
<td>3.5 (27)</td>
<td>14 (63)</td>
<td>N/A</td>
<td>5 (54)</td>
<td>5.5 (64)</td>
<td>6 (33)</td>
<td>5 (67)</td>
<td>4.5 (67)</td>
</tr>
<tr>
<td>Relationships with other teachers</td>
<td>7.5 (20)</td>
<td>10.5 (74)</td>
<td>N/A</td>
<td>12 (27)</td>
<td>14 (24)</td>
<td>2 (100)</td>
<td>14 (17)</td>
<td>11 (33)</td>
</tr>
<tr>
<td>Someone to talk to/listen to</td>
<td>3.5 (27)</td>
<td>2.5 (95)</td>
<td>N/A</td>
<td>1 (92)</td>
<td>1 (88)</td>
<td>2 (100)</td>
<td>5 (67)</td>
<td>1 (100)</td>
</tr>
<tr>
<td>Student control/discipline</td>
<td>7.5 (20)</td>
<td>1 (100)</td>
<td>N/A</td>
<td>9 (42)</td>
<td>5.5 (64)</td>
<td>6 (33)</td>
<td>1.5 (83)</td>
<td>11 (33)</td>
</tr>
<tr>
<td>Time management (personal/professional)</td>
<td>14 (7)</td>
<td>2.5 (95)</td>
<td>N/A</td>
<td>13.5 (23)</td>
<td>7.5 (52)</td>
<td>12.5 (33)</td>
<td>4.5 (67)</td>
<td></td>
</tr>
</tbody>
</table>

**NOTE:** Top number in each cell indicates the rank received by the item ranging from most frequently mentioned (1) to least frequently mentioned (14). The bottom number in parentheses is the percentage of respondents who mentioned the item.
### Figure 7

**Areas In Which First-Year TeachersReceived the Most Assistance From Support Teachers**

<table>
<thead>
<tr>
<th>Area</th>
<th>CO (N=15)</th>
<th>KY (N=19)</th>
<th>MI (N=2)</th>
<th>NM (N=52)</th>
<th>NC (N=50)</th>
<th>OR (N=3)</th>
<th>TX (N=6)</th>
<th>WV (N=3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Answering questions about clerical work related to district/system policies and procedures</td>
<td>3.6 (47)</td>
<td>N/A</td>
<td>N/A</td>
<td>1 (40)</td>
<td>4.5 (17)</td>
<td>4 (33)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Becoming familiar with subject matter</td>
<td>2 (13)</td>
<td>6 (42)</td>
<td>N/A</td>
<td>8.5 (8)</td>
<td>10.5 (4)</td>
<td>4 (33)</td>
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<td></td>
</tr>
<tr>
<td>Classroom organization</td>
<td>9.5 (21)</td>
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<td>4 (15)</td>
<td>10.5 (4)</td>
<td>N/A</td>
<td>4 (33)</td>
<td></td>
<td></td>
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<tr>
<td>Dealing with students' individual differences</td>
<td>12 (11)</td>
<td>N/A</td>
<td>4 (15)</td>
<td>7 (12)</td>
<td>N/A</td>
<td></td>
<td></td>
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<tr>
<td>Establishing realistic expectations for student work and behavior</td>
<td>4 (7)</td>
<td>6 (42)</td>
<td>N/A</td>
<td>8.5 (8)</td>
<td>5.5 (16)</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Grading and evaluation of student progress</td>
<td>6 (42)</td>
<td>N/A</td>
<td>8.5 (8)</td>
<td>10.5 (4)</td>
<td>N/A</td>
<td>4.5 (17)</td>
<td>1 (67)</td>
<td></td>
</tr>
<tr>
<td>How to conduct parent conferences</td>
<td>12 (11)</td>
<td>N/A</td>
<td>6 (12)</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Locating materials</td>
<td>4 (7)</td>
<td>2 (58)</td>
<td>N/A</td>
<td>2 (46)</td>
<td>5.5 (16)</td>
<td>4.5 (17)</td>
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<tr>
<td>Motivating students</td>
<td>3.5 (47)</td>
<td>N/A</td>
<td>N/A</td>
<td>8 (8)</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Planning lessons (materials, what to teach, how to teach it)</td>
<td>1 (20)</td>
<td>12 (11)</td>
<td>N/A</td>
<td>8.5 (8)</td>
<td>3.5 (20)</td>
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<td>4 (33)</td>
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<tr>
<td>Relationships with other teachers</td>
<td>9.5 (21)</td>
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<td>11 (4)</td>
<td>10.5 (4)</td>
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<tr>
<td>Someone to talk to/listen to</td>
<td>14 (5)</td>
<td>N/A</td>
<td>1 (65)</td>
<td>2 (36)</td>
<td>1 (67)</td>
<td>1.5 (33)</td>
<td>4 (33)</td>
<td></td>
</tr>
<tr>
<td>Student control/discipline</td>
<td>1 (95)</td>
<td>N/A</td>
<td>4 (15)</td>
<td>3.5 (20)</td>
<td>4.5 (17)</td>
<td>4 (33)</td>
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<td></td>
</tr>
<tr>
<td>Time management (personal/professional)</td>
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<td>8 (26)</td>
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<td></td>
<td></td>
<td></td>
<td>4 (33)</td>
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</table>

**NOTE:** Top number in each cell indicates the rank received by the item ranging from most frequently mentioned (1) to least frequently mentioned (14). The bottom number in parentheses is the percentage of respondents who mentioned the item.
that they received the most assistance from support teachers. Expectedly, many areas show up on both lists, but there are some differences worth noting. For example, while "help with clerical work" was frequently mentioned, it was not among the areas in which first-year teachers overall reported that they received the most help, except in the case of the two state-mandated programs (NC and KY). This can possibly be explained in one of two ways. First, it may be because state-mandated programs have more record-keeping requirements than other programs or it may be that support teachers in these programs have been better prepared to provide assistance in this area. The areas of "establishing realistic expectations for student work" and "grading", while not mentioned as frequently as some other areas, appeared high on the "most help" list. The "most help" list also revealed that five of the programs served a strong emotional support function as indicated by the area "someone to talk to/listen to."

**Perceived Effects of Practices on Beginning Teachers.** Two data sources were particularly helpful in identifying effects of induction practices and programs as perceived by first-year teachers. One data source was the End-of-Year Questionnaire; the other was a question on the final interview which asked first-year teachers what changes they made as a result of the assistance they received.

On the End-of-Year Questionnaire, first-year teachers were asked to react to a series of 18 statements (items 14-31) by indicating their opinion using a scale of 1-5, with 1 indicating "not at all" and 5 indicating "extremely." For example, if a teacher marked "5" on the item "The assistance I received was helpful.", this would indicate that the teacher believed the assistance had been extremely helpful. A "1" on the same item would indicate that the teacher believed the assistance was not helpful. The items clustered into two categories in that nine of the items were directly
related to induction support while the other nine items related to general satisfaction with teaching. Three of the items in each category were “Reversed Items,” meaning that a low score rather than a high score was desirable. Figure 8 indicates the mean responses of participants at each of the eight sites.

Because of the extreme differences in sample sizes across sites, no attempt was made to statistically compare responses to the questionnaire. However, some interesting trends are apparent in the data. The two sites that did not have a formal induction program in operation (MI and OR) had noticeably less desirable responses than the other six sites. This would obviously be expected on items related to induction support, but was also true on items related to general satisfaction with teaching. It is interesting to note, for example, that teachers in Michigan and Oregon question the correctness of their decision to be a teacher (item #22) more so than the teachers in any of the other sites. It should also be noted that while the Michigan and Oregon sites were noticeably different than the others, it appears that the Oregon teachers were in a generally more supportive environment than the Michigan teachers. While not conclusive, the data from this questionnaire indicate that the existence of an induction program has an influence on how teachers perceive their own effectiveness and the desirability of their profession.

On the final interview, first-year teachers were asked what changes they have made as a result of the assistance they have received through their induction programs. Representative responses from each site are shown in Figure 9. In general, teachers gave very specific examples of the changes they made. It is interesting to note both the number and nature of the changes mentioned. The list indicates that a substantial amount of change is attributed by first-year teachers to the assistance they received through the
## First-Year Teacher Responses to End-of-Year Questionnaire

### Items Related to Induction Support

<table>
<thead>
<tr>
<th>Item</th>
<th>CO (N=15)</th>
<th>KY (N=20)</th>
<th>MI (N=52)</th>
<th>NM (N=50)</th>
<th>NC (N=3)</th>
<th>OR (N=6)</th>
<th>TX</th>
<th>WV (N=3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>14. The assistance I received was helpful.</td>
<td>3.80</td>
<td>4.10</td>
<td>1.00</td>
<td>4.42</td>
<td>4.52</td>
<td>3.33</td>
<td>4.75</td>
<td>4.00</td>
</tr>
<tr>
<td>16. My principal has been helpful and supportive during the year.</td>
<td>3.93</td>
<td>4.00</td>
<td>2.50</td>
<td>3.85</td>
<td>4.16</td>
<td>3.00</td>
<td>3.50</td>
<td>5.00</td>
</tr>
<tr>
<td>17. My support teacher has been helpful and supportive during the year.</td>
<td>3.13</td>
<td>4.70</td>
<td>1.00</td>
<td>4.65</td>
<td>4.40</td>
<td>3.33</td>
<td>4.50</td>
<td>4.00</td>
</tr>
<tr>
<td>20. I felt there was someone I could go to for assistance or just to talk to during the year.</td>
<td>4.20</td>
<td>4.40</td>
<td>1.00</td>
<td>4.27</td>
<td>4.28</td>
<td>4.33</td>
<td>4.83</td>
<td>4.00</td>
</tr>
<tr>
<td>28. I feel the assistance I received through the First Year Teacher Assistance Program has improved my professional competencies as a teacher.</td>
<td>1.60</td>
<td>3.40</td>
<td>N/A</td>
<td>4.12</td>
<td>4.12</td>
<td>3.00</td>
<td>1.00</td>
<td>4.33</td>
</tr>
<tr>
<td>31. Teachers in general at this school were supportive.</td>
<td>4.07</td>
<td>4.35</td>
<td>3.50</td>
<td>3.65</td>
<td>4.12</td>
<td>4.00</td>
<td>4.50</td>
<td>4.67</td>
</tr>
</tbody>
</table>

*Reversed Items

<table>
<thead>
<tr>
<th>Item</th>
<th>CO (N=15)</th>
<th>KY (N=20)</th>
<th>MI (N=52)</th>
<th>NM (N=50)</th>
<th>NC (N=3)</th>
<th>OR (N=6)</th>
<th>TX</th>
<th>WV (N=3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>15. I was apprehensive about receiving assistance from others.</td>
<td>2.73</td>
<td>2.20</td>
<td>3.00</td>
<td>1.88</td>
<td>2.24</td>
<td>3.33</td>
<td>1.33</td>
<td>2.67</td>
</tr>
<tr>
<td>29. Relying so heavily on other teachers for their materials, ideas, at times made me feel uncomfortable.</td>
<td>2.77</td>
<td>2.05</td>
<td>N/A</td>
<td>2.18</td>
<td>1.80</td>
<td>2.67</td>
<td>2.00</td>
<td>2.67</td>
</tr>
<tr>
<td>30. I felt my support teacher forced his/her ideas on me.</td>
<td>1.33</td>
<td>1.35</td>
<td>N/A</td>
<td>1.15</td>
<td>1.32</td>
<td>2.67</td>
<td>1.17</td>
<td>1.67</td>
</tr>
</tbody>
</table>

### Items Related to General Satisfaction with Teaching

<table>
<thead>
<tr>
<th>Item</th>
<th>CO (N=15)</th>
<th>KY (N=20)</th>
<th>MI (N=52)</th>
<th>NM (N=50)</th>
<th>NC (N=3)</th>
<th>OR (N=6)</th>
<th>TX</th>
<th>WV (N=3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>21. I believe my students did their best.</td>
<td>3.60</td>
<td>3.40</td>
<td>3.00</td>
<td>4.27</td>
<td>3.54</td>
<td>3.00</td>
<td>4.17</td>
<td>4.00</td>
</tr>
<tr>
<td>23. I feel good about this school system.</td>
<td>3.87</td>
<td>3.90</td>
<td>3.50</td>
<td>3.42</td>
<td>4.00</td>
<td>4.00</td>
<td>4.33</td>
<td>4.67</td>
</tr>
<tr>
<td>24. I am proud to be a member of the teaching profession.</td>
<td>4.53</td>
<td>4.25</td>
<td>4.00</td>
<td>4.50</td>
<td>4.64</td>
<td>4.33</td>
<td>4.83</td>
<td>5.00</td>
</tr>
<tr>
<td>25. My teaching preparation program prepared me for the real world of teaching.</td>
<td>3.13</td>
<td>3.50</td>
<td>2.50</td>
<td>3.54</td>
<td>3.52</td>
<td>3.00</td>
<td>3.33</td>
<td>3.67</td>
</tr>
<tr>
<td>26. I believe conditions (salary, responsibilities, public opinions, etc.) for teachers are good.</td>
<td>2.53</td>
<td>2.25</td>
<td>1.50</td>
<td>2.15</td>
<td>2.68</td>
<td>3.00</td>
<td>2.67</td>
<td>2.67</td>
</tr>
<tr>
<td>27. My first year of teaching has been like I expected it to be.</td>
<td>3.21</td>
<td>3.30</td>
<td>2.20</td>
<td>3.08</td>
<td>3.28</td>
<td>3.67</td>
<td>2.67</td>
<td>3.67</td>
</tr>
</tbody>
</table>

*Reversed Items

<table>
<thead>
<tr>
<th>Item</th>
<th>CO (N=15)</th>
<th>KY (N=20)</th>
<th>MI (N=52)</th>
<th>NM (N=50)</th>
<th>NC (N=3)</th>
<th>OR (N=6)</th>
<th>TX</th>
<th>WV (N=3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>18. I have felt alone/isolated during the year.</td>
<td>2.60</td>
<td>1.95</td>
<td>3.50</td>
<td>1.96</td>
<td>1.80</td>
<td>2.67</td>
<td>1.67</td>
<td>1.33</td>
</tr>
<tr>
<td>19. I have felt incompetent during the year.</td>
<td>2.71</td>
<td>1.85</td>
<td>3.50</td>
<td>2.00</td>
<td>2.16</td>
<td>2.33</td>
<td>1.00</td>
<td>1.00</td>
</tr>
<tr>
<td>22. I question the correctness of my decision to be a teacher.</td>
<td>1.87</td>
<td>1.65</td>
<td>3.00</td>
<td>1.92</td>
<td>1.76</td>
<td>3.33</td>
<td>2.17</td>
<td>1.00</td>
</tr>
</tbody>
</table>

*On Reversed Items, a low score is desirable.

**NOTE:** Mean responses are reported on a scale of 1-5. Each respondent circled the number that best represented his/her opinion using a scale ranging from "Not at All" (1) to "Extremely" (5).
In the end-of-year interview, first-year teachers were asked, "What changes have you made in your teaching as a result of assistance you have received?" Representative responses are displayed by site as follows:

**Colorado (N=11)**
- I’ve learned to begin and end lessons better.
- I switched how I review for exams.
- I now state what we will do during the class and explain how much time we will spend. I also emphasize major points more.
- I’ve tried different techniques and strategies for discipline.
- I’ve gotten help with the curriculum such as how to integrate music.
- Now I’m not so serious when I’m in front of the class.

**Kentucky (N=20)**
- I’ve changed little things like voice inflection and eye contact.
- How to plan a unit and set up objectives. How to plan ahead rather than day-to-day.
- I’m using different management techniques as a result of suggestions from my committee.
- I’m more dedicated because I see how dedicated my resource teacher is.
- I’ve changed by expectations of students.

**Michigan (N=1)**
- I’m not sure what changes I have made, but my teaching has evolved over the year.

**New Mexico (N=18)**
- I don’t use the text so much; I now know other resources to use. I’m integrating subjects more such as English and social studies.
- I focus more on individual needs. I’ve cut down on the number of spelling words. I’ve tried ideas from the seminars.
- I’ve rearranged the classroom. My students keep journals.
- I’ve changed the way I do reading groups.
- I use manipulatives more often and more effectively.

**North Carolina (N=3)**
- I’ve changed some of my techniques for dealing with discipline. I’ve adapted to the disarray.
- I’ve changed my pacing. I was going too fast, especially through the transitions.
- I’m now more consistent with the children on discipline.

**Oregon (No final interviews available)**

**Texas (N=6)**
- To use different techniques like going from the chalk board to the overhead in the same class.
- I’ve changed the order in which we do homework. I changed how I deal with discipline.
- I’ve become more organized as a result of the principal and vice-principal evaluations. I make sure I vary my voice inflection.
- I’ve changed my classroom management and started using a procedure for putting kids names on the board.

**West Virginia (N=3)**
- I’ve changed my teaching style and how I deal with behavior problems as a result of my principal’s evaluation. I’ve tried some suggestions given in the seminars; I would not have thought of them on my own.
- I’ve changed my classroom management as a result of the seminar we had.
- I’m trying to be more consistent with my discipline.
induction program. Also, most of the changes are of an instructional nature and are of the type that directly influence the quality of instruction with students. While it is difficult to quantify, based on the changes reported it is reasonable to conclude that the teaching of the participating first-year teachers was improved as a result of their involvement in the induction programs.

**Areas in Need of Additional Attention.** On the final interview, first-year teachers were asked what they do best as a teacher and what they find most difficult about teaching. Responses to the question about what they find most difficult were analyzed in an attempt to identify areas in need of additional attention. Representative responses from each of the sites are shown in Figure 10. A number of areas in need of additional attention are apparent including: discipline; finding the time to plan, grade papers, and do required record-keeping; motivating difficult students; and dealing with individual student needs and differences. Some of these areas lend themselves to being addressed through an induction program. For example, beginning teachers could probably benefit from assistance targeted at improved time management techniques and streamlined record-keeping techniques. However, it is also important to realize that by and large these areas of concern are not unique to beginning teachers. Rather they are much the same concerns that would likely be nominated by any group of veteran teachers as well. Rather than assuming that the induction program should address these areas, it is probably more reasonable to conclude that learning to teach is a career-long process that cannot be mastered in one-year regardless of how comprehensive the induction program is. Instead, on-going staff development programs should be designed to address these areas in the first year but to also continue to focus on them throughout a teacher's career.
Figure 10
Areas of Difficulty Reported By First-Year Teachers

In the end-of-year interview, first-year teachers were asked "What do you have the most difficulty with in your teaching?" Representative responses are displayed by site as follows:

**Colorado (N=11)**
- Discipline (mentioned by more than half of respondents)
- Not having enough time to prepare
- Classroom management, especially with the afternoon group
- Being fair and consistent
- The curriculum sometimes does not match the kids; it's over their heads

**Kentucky (N=20)**
- Keeping students motivated
- Discipline (mentioned by 6 respondents)
- Dealing with the individual differences of students
- The paperwork; communicating with parents; all the after-school work
- Dealing with students who have a bad attitude
- Not having enough time to plan; not going home until after 6 p.m.

**Michigan (N=1)**
- Enforcing discipline and not being a "soft touch" for all of the excuses kids come up with

**New Mexico (N=16)**
- Talking with parents; classroom control
- Classroom management and discipline (mentioned by several teachers)
- Dealing with my own frustration when kids aren't cooperative
- Not getting enough help from parents
- Putting up with politics and other teachers who are very competitive

**North Carolina (N=3)**
- Dealing with all the demands of the career development program; it's one paper right after another; one meeting right after another
- Grading all the papers; dealing with the overtime
- "Teaching is not that difficult, it's preparing to teach that is difficult."
- Motivating students that do not care and have problems in the home

**Oregon (No final interviews available)**

**Texas (N=6)**
- Having time to deal with individual students, especially those with behavior problems
- Trying to maintain enthusiasm and motivation late in the afternoon; fitting in all the "essential elements"; taking work home every night
- Telling a child that he will be retained and will have to repeat the grade
- Having time to really listen to what the children are trying to tell you

**West Virginia (N=3)**
- Finding different ways for dealing with children who are difficult
- Staying "overprepared" so that faster students will have something to do
- All the paperwork is difficult and has been a surprise to me.
Implications of These Findings for Induction Program Development

The findings from this study lend themselves to a number of specific implications for program development and have led the authors to conceptualize a model for program development. First we will discuss these implications and will conclude by proposing a model to guide the development of induction programs.

Implications. Data from this study indicate that the existence of an induction program influences how teachers perceive their own effectiveness and the desirability of the teaching profession. Further, first-year teachers reported making a large number of changes in their classroom teaching as a result of the assistance they received through their induction programs (See Figure 9, page 25). Therefore, the first implication from these findings for program development is that it is in the school district's best interest to have an induction program. It can be hypothesized that the very existence of an induction program helps teachers realize that they are not expected to be "polished professionals" their first day on the job and that it is acceptable, and even desirable, to seek help with their teaching. This hypothesis is supported by the End-Of-Year Questionnaire data which indicate that the least desirable responses related to assistance received and general satisfaction with teaching were reported by teachers in those sites with no formal induction programs. To state it another way, it appears that the very existence of an induction program can make a difference in how first-year teachers perceive their own teaching and the teaching profession.

Another implication that can be derived from these findings is that the assignment of a support teacher may well be the most powerful and cost-effective induction practice available to program developers. First-year teachers who were assigned designated support teachers consistently reported that those persons were who they relied upon most
heavily for assistance. When there was not a designated support teacher, first-year teachers either "worked it out on their own" or relied on "the teacher across the hall" or some other receptive teacher at the school.

The data related to the function of support teachers (Figures 6 and 7) indicated that in almost all instances the support teacher fulfilled a very diversified role involving at least 14 distinct functions. First-year teachers reported that they received the most help from support teachers in the areas of: locating materials, student discipline, lesson planning, grading, establishing realistic expectations for student work and behavior, and having someone to talk to/listen. A couple of implications for program development related to support teachers can be derived. The first is that support teachers should receive training in how to fulfill the role of support teacher, including how to work with another adult in a supportive fashion. Also, the district's expectations of the support teacher need to be made clear to help them balance their desire to be helpful with their desire to not be perceived as interfering. Because data indicate that the role of the support teacher is quite substantial, a second implication is that they should be compensated for their work with beginning teachers. Districts should reward support teachers either monetarily, by providing release time, or through other forms of professional recognition.

The final set of implications for program development relate to how district's view their teacher induction programs and the expectations they hold for them. The induction program should be considered as the entry piece of a larger, on-going staff development program for teachers. Learning to teach is not a one-year process and it is doubtful whether any induction program will ever be powerful enough to transform beginning teachers into polished professionals at the conclusion of one year. In planning an induction program, first year teachers need immediate help in classroom managemen.
and learning to manage all of the planning, grading, paperwork and recording-keeping demands inherent in teaching (especially if the induction program itself requires additional clerical work as is often the case in state-mandated programs). The induction program should also include help in a variety of other areas such as student discipline, lesson planning, grading, and dealing with parents, to name a few, but it should not be assumed that these issues can be dealt with once and for all during the first year.

It is also important that districts have realistic expectations for their induction programs (Huling-Austin, 1986). It is very difficult for induction programs to be powerful enough to overcome the difficulties beginning teachers experience when placed in an extremely difficult teaching context. A variety of factors can contribute to a difficult context such as being assigned classes comprised predominantly of low-achieving students who are unmotivated to learn, or having an extremely high student-teacher ratios, a large number of preparations, or demanding extra-curricular responsibilities. It is common for first-year teachers to be placed in difficult teaching assignments because teachers with more seniority are often given the more desirable assignments. Also, beginning teachers are often "misassigned" and asked to teach subjects for which they are not certified. It is estimated that more than 12% of all newly hired teachers are not certified in the field to which they are assigned (Roth, 1986). Program developers must keep in mind that the induction support program should not be expected to overcome the influence of misassignments and overloads.

A Model to Guide the Development of Teacher Induction Programs

In developing a teacher induction program a number of factors need to be considered in addition to what the literature clearly suggests are the "needs" of beginning teachers. We believe the induction process is influenced
by the personal and professional characteristics of the beginning teacher, the teaching context, and the induction support program. Because these three factors interact, it is not enough to consider each factor in isolation rather all three factors must be considered in combination. If one accepts this premise, induction then is a function of the beginning teacher, the context, and the support program, and the interactions of each with the other. The following model represents this idea:

\[
\text{Induction Success} = f(\text{Beginning Teacher} \times \text{Context} \times \text{Support Program})
\]

To elaborate on this, a beginning teacher with no previous experiences in an inner-city school setting will need a different type of induction support than one who perhaps grew up in this type of setting and/or did student teaching in such a school. Using this model, it is also possible to see how any one factor can prevent successful induction. For example, if the beginning teacher has an extremely weak background and is not well-suited to working with students, it is unlikely that person will become a successful teacher regardless of the teaching context or the induction support program provided. Another situation, more frequently encountered, is when the first-year teacher has an "average" background but is placed in an extremely difficult context. When a first-year teacher is placed in an extremely difficult teaching situation, the support program has little chance of overcoming the negative influence of context.

The model proposed does suggest an individualized approach to induction, but this is not to suggest that it is necessary to design a totally different induction program for each beginning teacher. Rather program developers should consider providing common induction experiences for beginning teachers with like backgrounds operating in similar settings. This
approach will be more effective than providing all teachers with exactly the same induction program, regardless of their background or the teaching setting. Also, program developers will go a long way toward promoting successful induction by using their influence to see that first-year teachers are not placed in contexts that prevent them from succeeding. In spite of the fact that veteran teachers may feel they are entitled to the more desirable teaching positions, it is not sound educational practice to place those teachers with the least experience in the most difficult assignments. Beyond this, program developers also need to communicate to persons in hiring positions the need to carefully consider the context when making hiring decisions and to choose candidates who have specific personal and professional characteristics that make it more likely that they will succeed in the specific setting in which the opening exists.

Summary

This paper reports findings from a national Collaborative Study of Teacher Induction in Diverse Contexts coordinated by the Research and Development Center for Teacher Education at The University of Texas at Austin. Twenty-seven research sites across the nation participated in the study. Data from ten districts in eight states (Colorado, Kentucky, Michigan, New Mexico, North Carolina, Oregon, Texas and West Virginia) were analyzed and discussed in this paper.

Findings were organized into four sections: Description of Programs and Participants, Similarities and Differences in Program Practices, Perceived Effects of Practices on Beginning Teachers, and Areas in Need of Additional Attention. The programs operated in districts ranging in size from 915 to more than 77,000 (mean size = 29,662).

Seven of the 10 sites had formal teacher induction programs in operation. Only the Kentucky and North Carolina programs were
state-mandated. Four of the ten programs were collaborative, and the other six were operated independently by local school systems. The Kentucky, New Mexico and North Carolina programs were sponsored by school districts and universities, while the West Virginia program involved a school district and a regional education service agency.

In regard to program features, the support teacher was the most commonly found required component, while the individual professional development plan was the least commonly found program feature. Half of the sites had support teams and half did not. All of the sites, with the exception of the three sites that had no formal induction programs in operation, provided an orientation program and in-service/staff development for beginning teachers.

First-year teachers reported receiving help from their support teachers in 14 different areas. Areas most frequently mentioned included "someone to talk to/listen to,” followed by “locating materials” and “help with clerical work related to district policies and procedures.” Other areas most frequently mentioned were “lesson planning,” “classroom organization,” and “discipline.”

On an End-Of-Year Questionnaire, first-year teachers were asked to react to a series of 18 statements related to the induction support they had received and to their general satisfaction with teaching. Responses from sites that had no formal induction program in operation were noticeably less desirable than the other sites. The questionnaire data indicate that the existence of an induction program has an influence on how teachers perceive their own effectiveness and the desirability of their profession. In the end-of-year interviews, first-year teachers gave very specific examples of the changes they had made as a result of the assistance they had received. Their responses indicated that they attributed a substantial amount of
change to the assistance they received through the induction program. Also, most of the changes were of an instructional nature and were the type that directly influenced classroom teaching.

First-year teachers also indicated in the end-of-year interviews, the areas of teaching in which they were experiencing difficulty. These areas were analyzed in an attempt to identify those areas in need of additional attention. The areas nominated most frequently included: discipline; finding the time to plan, grade papers, and do required record-keeping; motivating difficult students; and dealing with individual student needs and differences. While, some of these areas lend themselves to being addressed through an induction program, others are concerns that are not unique to beginning teachers. Rather than assuming that the induction program should address these areas, it is probably more reasonable to conclude that learning to teach is a career-long process that cannot be mastered in one-year regardless of how comprehensive the induction program is. Instead, on-going staff development programs should be designed to address these areas in the first year but to also continue to work on them throughout a teacher's career.

A number of implications for program development were derived from these findings. These implications include:

1) It is in the district's best interest to implement an induction program. It appears that even a modest induction program can make a difference in how first-year teachers perceive their own teaching and the teaching profession.

2) The assignment of a support teacher for the first-year teacher may well be the most powerful and cost-effective induction practice available to program developers.

3) Support teachers should receive training in how to provide assistance in a variety of areas and in how to work with another adult in a
supportive manner.

4) Support teachers should be compensated for participation in induction programs.

5) Districts should view their teacher induction programs as the entry piece to a larger, on-going staff development program for teachers and realize that important teaching issues cannot simply be dealt with once and for all during the first year of teaching.

6) Districts should have realistic expectations for their teacher induction programs and realize that learning to teach is not a one-year process. It is unreasonable to expect the teacher induction program to produce polished professionals at the end of one year of teaching.

7) Districts should avoid placing first-year teachers in difficult teaching situations and settings that will prevent them from succeeding.

The following model for program development is proposed:

\[ \text{Induction Success} = f(\text{Beginning Teacher} \times \text{Context} \times \text{Support Program}) \]

The induction process is influenced by the personal and professional characteristics of the beginning teacher, the teaching context, the induction support program, and the interactions of each with the other. For example, a beginning teacher with no previous experiences in a specific type of school setting will need a different type of induction support than one who perhaps grew up in this type of setting and/or did student teaching in such a school. Rather than providing all beginning teachers with exactly the same induction program, regardless of their background or the teaching setting, the support program should be designed to provide assistance that is context-specific and based on the individual needs of the beginning teacher at the time he/she is experiencing these needs.
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