

DOCUMENT RESUME

ED 361 916

EA 025 330

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 TITLE The Impact of Perceived Workplace Conditions on Beginning Teachers' Work Commitment, Career Choice Commitment, and Planned Retention.
 PUB DATE Apr 93
 NOTE 38p.; Paper presented at the Annual Meeting of the American Educational Research Association (Atlanta, GA, April 12-16, 1993).
 PUB TYPE Speeches/Conference Papers (150) -- Reports - Research/Technical (143)
 EDRS PRICE MF01/PC02 Plus Postage.
 DESCRIPTORS *Beginning Teachers; *Career Choice; Educational Environment; Elementary Secondary Education; Employment Patterns; Faculty Mobility; *Organizational Climate; Teacher Morale; *Teacher Persistence; Teaching (Occupation); *Teaching Conditions

ABSTRACT

Findings of a study that determined factors of beginning teachers' work and career choice commitment and retention are presented in this paper. The data consisted of a nationally representative sample of first-year K-12 public and private, full- and part-time teachers derived from the 1987-88 Schools and Staffing Survey (SASS). The final subsample consisted of 561 first-year teachers. Regression analysis was conducted to determine the relationship between several independent variables and three dependent variables--work and career-choice commitment and planned retention. Overall, findings support the hypothesis that teachers' perceived and actual workplace conditions are strongly related to their work commitment, career-choice commitment, and planned retention. This is especially true with respect to perceived school/leadership culture and perceived teacher autonomy/discretion. To help retain beginning teachers, it is recommended that school systems provide collaborative and supportive school leadership, increase teacher participation in decision making, and provide opportunities for new teachers to participate in professional development schools. (LMI)

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Paper Presented at the Annual Meeting of the American Educational Research Association
April 12, 1993
Atlanta

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The Impact of Perceived Workplace Conditions on Beginning Teachers' Work Commitment, Career Choice Commitment, and Planned Retention*

*This study was funded by a grant from the National Center for Education Statistics sponsored by the American Educational Research Association.

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The Problem

Beginning teachers leave the profession at a disproportionately high rate. In some districts, up to 40% of beginning teachers resign during their first two years (Wise, Darling-Hammond, & Berry, 1987). In studies conducted in 1981 and 1982, Schlechty & Vance (1983) found that where the overall turnover rate for teachers in the 1970s was 6%, of those who entered teaching in the late 1970s, 15% left in their first year and an additional 15% left in their second year. Research on teacher attrition and overall commitment has examined teacher attrition in light of demographics, salary, experience, or specialty field (Darling-Hammond, 1984, 1986; Grissmer & Kirby, 1987; Murnane et al., 1991). This alarmingly high attrition rate focuses attention on the special predicament of beginning teachers who, more than any other group, are most vulnerable to the effects of workplace conditions. If unprofessional workplace conditions cause teachers to leave, they also may discourage them from entering the profession in the first place (Darling-Hammond, 1984). Not only may adverse workplace conditions affect beginning teachers' commitment and intentions to stay, but what amounts to a serious problem in the short-term leaves an indelible imprint on the structure of teaching itself. Many claim that it is during the first year that teachers form their permanent styles of teaching (Bullough, 1987; Feiman Nemser, 1983). Although research has explored the social organization of the workplace, its structure, dominant ideology, and effect on teachers in general, it has yet to

focus on the problems of first-year teachers as symptomatic of what is fundamentally wrong in the field of teaching at large (Blase & Kirby, 1992; Conley, 1991; Deal & Peterson, 1990; Goodlad, 1984; Fullan, 1992; Lieberman & Miller, 1984; Little, 1982; Lortie, 1975; McLaughlin et al., 1986; Rosenholtz, 1989; Rowan, 1990; Sergiovanni, 1992; Smylie, 1992; Yee, 1990).

Recent research links school social organization with teachers' overall commitment and willingness to remain in the profession (Litt & Turk, 1985; Rosenholtz, 1985; Rosenholtz, 1989). In what is perhaps the most thoroughly designed and researched study done to date, Rosenholtz (1989) analyzed the social organizational conditions necessary for continued teacher commitment but the focus was not on first-year teachers. On the other hand, research that has focused on beginning teachers has not fully explored the effects of school social organization on their commitment and willingness to stay. Rather, most of the beginning teacher research describes the practical and psychological problems faced by beginning teachers (Veenman, 1984). Successful beginning teacher experiences, however, depend at least in part on an environment that meets their needs. Collegial and supportive social organizational conditions can encourage teachers to work together, to support each other, and to use and develop a common knowledge base (Little, 1983; Rosenholtz, 1989). Moreover, teachers who are formally initiated into the profession stand a better chance of developing norms encouraging self-perpetuating growth and are more likely to develop greater commitment to

teaching (Rosenholtz, 1989). Research needs to focus on the significance of the link between social organizational aspects of the environment and its effect on beginning teachers. (See Sclan, 1993 for a more detailed review of the literature on teacher commitment and workplace conditions.)

The main purpose of this study is to determine what might strengthen beginning teachers' work and career choice commitment and what might keep them in the profession. By making this link we may be better able to define more responsive environments for beginning teachers. And by coming to understand the complexity of the environment we may be able to identify why beginning teacher problems persist. Specifically, this study analyzes the effects of beginning teacher perceptions in terms of school leadership, teacher autonomy, school social climate, perceptions of and actual class size, as well as views of incentive pay plans, perceptions of and actual salary, specialty field, level, sector, academic background and demographics.

METHODOLOGY

Sample Definition of Beginning Teachers

The data for this study consisted of a nationally representative sample of first year K-12 public and private, full and part-time teachers derived from the 1987-88 SASS database.¹ The subsample of beginning teachers used for this study is comprised of 2,676 first year teachers, those who were elementary, middle, or high school teachers in public or private schools.² To facilitate analysis, those beginning teachers (first year) who were assigned to more than one level: elementary, middle, or high school were not included in the study. New private school teachers are slightly over-represented without the weighting variable in order to be sure that there would be enough new teachers for the follow-up survey (N.C.E.S., 1991).³

The subsample of beginning teachers was reduced from the original $n=1321$ (weighted $n=49,459$) to $n=904$ (weighted $n=47,827$)

¹In this study, the beginning teacher responses to items in the 1987-88 teacher Schools and Staffing Survey (SASS) were entered into a SAS data file. Data were extracted on the first year teachers in the form of a SAS system file. DBMSCOPY was used to convert the SAS data file into an SPSS data file for the factor analysis part of the study.

²Teachers in "ungraded" schools which represent 2.9% of the sample were not classified separately or as part of any other group, but it is likely that most of these ungraded teachers fell within the elementary group.

³The unweighted sample includes 8% more private school teachers than the weighted sample. But the profiles of the weighted beginning teacher sample and the unweighted beginning teacher sample are very similar for gender, marital status, race, age, and other variables.

after excluding those teachers who overlapped between middle school and high school and between elementary school and high school in order to satisfy the assumption of independence of observation.⁴ The final subsample consisted of 651 first-year teachers (weighted $n=34,506$) for all three regression equations. The original weighted ($n=49,459$) and the reduced weighted ($n=34,506$) and unweighted ($n=651$) samples were compared to be sure there were no major differences between them.

Original Sample Created by the U.S. Bureau of the Census

The teacher survey used for this study was part of a larger series of surveys, the Schools and Staffing Survey (SASS), which the Department of Education sponsored. The 1987-88 SASS was sponsored by the National Center for Education Statistics (N.C.E.S.); the survey research was conducted by the U.S. Bureau of the Census. Schools were sampled nationally, proportional to size within strata determined by grade level, enrollment size, geographic location (region), and sector (public/private).⁵

⁴Because some teachers overlapped with elementary, middle, and high school categories, only those who fell into mutually exclusive categories were included in the model to satisfy the assumption of independence of observations.

⁵The Technical Report. Schools and Staffing Survey. 1988 Schools and Staffing Survey Sample Design and Estimation contains all the details on how the sampling procedures were accomplished. It may be obtained from the National Center for Educational Statistics, U.S. Dept. of Education, Washington, D.C. 20208.

Administration of the Surveys by the U.S. Bureau of the Census

Four Schools and Staffing Surveys (SASS) were administered to teachers and administrators at school and LEA levels across the country. Only the Public School Teachers Questionnaire 1987-88 and the Private School Teachers Questionnaire 1987-88 were used for this study. The teacher surveys⁶ collect information on teacher demographics, education and training, teaching assignment, experience, certification, workload, perceptions and attitudes about teaching, job mobility, and workplace conditions. Data from Sections 1-7 of the questionnaires were used.

Items Used to Measure the Dependent Variables

Three items taken from the 1987-88 SASS Teacher Survey were used as the dependent variables to measure work and career choice commitment and planned retention for this study. The item "I sometimes feel it is a waste of time to try to do my best as a teacher" was used to measure "work commitment." The item "If you could go back to your college days and start over again, would you become a teacher again?" was used to measure "career choice commitment." The item "How long do you plan to remain in teaching?" was used to measure planned retention.

Because the dependent variables in all three equations of this study are ordinal, not continuous, evaluation of the research

⁶A copy of the Schools and Staffing Public and Private School Teacher Questionnaires 1987-88 can be obtained from the National Center for Education Statistics, U.S. Department of Education, Washington, D.C. 20208.

hypotheses required the use of ordinal logistic regression (SAS version 6). This technique is based on maximum likelihood procedures and permits the measurement of each main effect adjusted for all the other variables in the model.

Hierarchical regression (SAS Institute, 1990) was used in all three equations of this study in order to test different models. It also allows the goodness of fit of the model (measured by the likelihood ratio) to be partitioned into component parts; the relative contribution of sets of independent variables are assessed as they are entered into the regression equation in a theoretically determined hierarchical regimen (Cohen & Cohen, 1983; Hosmer & Lemeshow, 1989). Each set of independent variables was separately entered into the equation according to a hypothesized rationale and yields the portion of the total likelihood that it uniquely contributes to the probability of the dependent variable.

Using hierarchical ordinal logistic regression, hypotheses were tested in three separate equations. In equation #1 the dependent variable was "work commitment," in equation #2, the dependent variable was "career choice commitment," and in equation #3 the dependent variable was "planned retention." In all three equations the same prespecified sets of independent variables (demographics, academic background, specialty field of the primary assignment, and perceived and actual workplace conditions) were entered, except for those ruled out by bivariate screening performed prior to building the full regression models.

The order of entry of each set was dictated by hypotheses

grounded in the research about teachers' workplace conditions. The literature to date has demonstrated that certain workplace conditions are associated with commitment (the strongest predictor of attrition) for teachers in general. Sets of specialty field, level, and perceived and actual workplace conditions were entered after the demographic, academic background, and public/private sector sets were entered to eliminate the possibility of spurious relationships. The hierarchical approach is a partial statistical control for the effects of antecedent variables. It allows us to look at the effect or proportion of fit (correct prediction) explained over and above the antecedent variables. That is, it enables us to ask if the workplace and specialty variables predict work commitment, career choice commitment, or planned retention over and above demographics or academic background. After the antecedent variables, the following sets of perceived and actual workplace conditions variables were entered: class size, financial, and each of the four factor scales of perceived workplace conditions.

FINDINGS AND DISCUSSION

I. Predictors of Beginning Teacher Work Commitment, Career Choice Commitment, and Planned Retention

Overall, the results of the three regression equations performed in this study support the hypotheses that beginning

teachers' perceived and actual workplace conditions are strongly related to their work commitment, career choice commitment, and planned retention. This is especially true with respect to perceived school leadership/culture and perceived teacher autonomy/discretion. (See Sclan, 1993 for a description of the perceived workplace condition scales which were significant independent variables in the regressions described in this paper.) Table 1 summarizes the significant workplace, financial, specialty field, level, academic background, and demographic variables for beginning teachers' level of commitment to their everyday work, commitment to their career choice, and intentions to stay in teaching.

Whereas past research on teacher attrition focused primarily on demographics, salary, and specialty field, this study found that perceived workplace conditions may be equally if not more important. The reduced importance of demographics and life cycle variables is especially important for women, who traditionally comprise most of the teaching workforce. In the past women had little choice but to accept poor workplace conditions, but today women have greater access to alternative careers and, therefore, have greater expectations of their workplace. Consequently, workplace conditions play a more pivotal role in determining teacher attrition. Given the particular needs and demands of women teaching today, this study reflects the urgent need for a research model that addresses the complex interaction between demographics, salary, specialty field, and workplace conditions.

Table 1

Summary of Results of Logistic Regressions**for Equations #1, #2, and #3**

Predictor Variables	Criterion Variables		
	#1: Work Commitment ($n=651$)	#2: Career Choice Commitment ($n=651$)	#3: Planned Retention ($n=651$)
Perceived School Leadership/Culture	-.2926* ^a	-.1602* ^a	-.1112* ^a
Perceived Autonomy & Discretion	.1297*	.2082*	.2273*
Perceived Social Climate/Student Behavior	.2661*	--	--
Perceptions of Salary	--	-.1763* ^a	-.1425* ^a
Salary	--	-- ^b	.1377*
Views of Class Size	-.1569* ^a	--	--
Average Class Size	--	--	-- ^b
Views on Financial Remun. (Incentive) Plans	--	--	-- ^b
Receipt of Incentive Pay	--	--	--
Middle School Teachers ^c	-.0984*	--	--
High School Teachers ^c	--	--	-.1240*
Math/Science/Com- puter Teachers ^c	--	-.2661*	-.1852*
Humanities/Social Science Teachers ^c	--	-.1743*	-.1637*

(table continues)

Predictor Variables	Criterion Variables		
	#1: Work Commitment ($n=651$)	#2: Career Choice Commitment ($n=651$)	#3: Planned Retention ($n=651$)
"Other" Teachers ^c	--	-.1121*	-.1936*
Rem.-Spec.Ed. Teachers ^c	--	--	--
Sector (Public/Private)	--	--	-- ^b
Discipline Degree	--	--	-.1092*
Master's Degree	--	--	--
Certified in Area Teaching	--	--	--
Marital Status	--	--	.1196*
Age	--	--	.1283*
Other Minorities (white=reference)	--	--	.1155*
Black (white=reference)	--	--	--
Family Income	-- ^b	--	--
Gender	--	--	--

* $p \leq .05$

^a Negative coefficients refer to negative perceptions of school leadership/culture, negative perceptions of salary and negative views of class size.

^b Non-significant in bivariate screening

^c "Elementary teachers" was the reference group for defining these variables.

A. Perceptions of School Social Organization

Beginning teacher experiences of workplace conditions are often as important as the objective indicators of workplace conditions. Dissatisfaction with class size, for example, not actual class size, explains beginning teachers' low work commitment. Student behavior or available resources may interact with actual class size to affect perceptions of class size, which in turn significantly affect work commitment. Beginning teachers' views of the social organization of their schools comprise the strongest determinants of work commitment, career choice commitment, and planned retention. The factors of beginning teachers' perceptions of their work environment that were found to be significant in this study are teacher autonomy and discretion, school leadership and culture, and social climate and student behavior. (See Sclan, 1993 for a complete description of how the perceived workplace factor scales were developed.)

1. *Perceived Teacher Autonomy/Discretion and School Leadership/Culture*

The most important finding of this study was that perceived teacher autonomy and discretion along with school leadership and culture play a significant part in predicting beginning teachers' work commitment, career choice commitment, and planned retention.

Specifically, beginning teachers who experience autonomy and discretion are those who feel they have a say in determining curriculum, in selecting texts, content, teaching techniques, and discipline methods and, who, in turn, do not feel discouraged about their work, would choose teaching again as a career, and plan to stay in teaching. The findings in this study on beginning teachers confirm past research on teachers in general that shows teacher autonomy and supportive school leadership playing a large part in shaping teachers' attitudes toward teaching; and that teachers who control the terms of their work are more likely to feel both more effective in their teaching and more committed to the field (Andermann et al., 1991; Blase & Kirby, 1992; Conley, 1991; Firestone & Rosenblum, 1988; Fullan, 1992; Little, 1982; Rosenholtz, 1989, 1990; Turk et al., 1982; Yee, 1990).

When teachers have greater autonomy and discretion they are able to make decisions about how they teach, which means that they are an active part of the school leadership. Professionalizing the structure of teaching not only enables teachers to play an important part in school leadership but also maximizes opportunities for advancement and the variability in job roles. Feeling involved in important decision making, working cooperatively, and setting school discipline policy crucially shape beginning teachers' perceptions of school leadership and culture, which, in turn, predicts beginning teachers' work commitment, career choice commitment, and planned retention.

Another crucial part of school leadership has to do with

principal support and encouragement. When principals communicate their expectations clearly, enforce student rules of conduct and support teachers in doing so, provide instructional or management guidance and necessary materials, and when teachers are evaluated fairly and recognized for a job well done, beginning teachers are more inclined to be committed to their work and career choice and to plan to stay in teaching. Involved teachers and supportive principals are crucial to responsive school leadership.⁷ This study shows that school leadership that incorporates teacher participation shapes whether beginning teachers feel it is worthwhile to do their best work, whether they would choose teaching again as a career, and whether they plan to stay in teaching.

2. Differential Effects of Significant Workplace Factors

Among the significant workplace factors, there were slightly different degrees of influence on beginning teachers' work commitment, career choice commitment, and planned retention (see Table 3). Beginning teachers' views of teacher autonomy and discretion, for example, affect career choice commitment and planned retention more than work commitment. And views of school leadership shape work commitment more than career choice commitment or planned retention. This suggests that views of autonomy and

⁷ Beginning teachers regard school leadership and culture and teacher autonomy and discretion in terms of effects on them individually as well as on teachers as a group in their schools.

discretion are more related to beginning teachers' conceptions of themselves as members of the teaching profession. On the other hand, views of school leadership have more of a day-to-day impact on their attitudes about work. We know from this study that beginning teachers view school leadership in terms of teacher autonomy and discretion; this interrelatedness should be investigated in future research in light of the differing degrees of impact on work commitment, career choice commitment, and planned retention.

3. Perceived Social Climate and Student Behavior

Beginning teachers are likely to feel it is a waste of time to do their best when school social climate and student behavior interfere with their teaching. Beginning teachers tend to feel discouraged about their work when they work in schools where there are problems with physical conflicts, pregnancies, drug abuse, and weapons possession. Commitment to their work also decreases when beginning teachers feel that teaching is interrupted by student misbehavior or student tardiness or cutting, by teacher absenteeism, by incidents of robbery, theft, and vandalism, and when teachers feel themselves to be targets of physical and verbal abuse.

While past research found that student behavior and social problems affect teacher morale and often drive teachers from the

profession (LeCompte & Dworkin, 1991; Metropolitan Life, 1991a), this study found no significant connection to beginning teachers' career choice commitment and their plans to stay in teaching; these findings are similar to those of Turk and his colleagues (1982) where only minimal correlations were found between teacher job satisfaction and student behavior problems. One reason for there being no significant association between school social climate and career choice commitment or planned retention may be that problems with students and school social climate do not in themselves explain why beginning teachers leave. Rather, it may be when beginning teachers see mis-management of behavior problems (part of school leadership) that they plan to leave teaching. Furthermore, beginning teachers may become discouraged when they are prevented from making decisions about student discipline (part of school leadership and autonomy and discretion). Strikingly, as this study suggests, the more beginning teachers see that teachers themselves have influence in determining discipline policy, the more committed they are to their work, to their career choice, and the more they plan to stay in teaching.

B. Financial Indicators

1. *Salary and Perceptions of Salary*

Salary and perceptions of salary in themselves do not appear to affect beginning teachers' work commitment. This further confirms Lortie's (1975) finding that positive feedback from

students may be more important to teachers than being paid more money. After all, the main motivation to enter teaching for most teachers is their desire to work with students (Metropolitan Life, 1990; N.E.A., 1992). Even though salary does not seem to shape beginning teachers' feelings that it is worthwhile to try to do their best (work commitment), it has been reported as the most important reason for leaving teaching (Litt & Turk, 1985): teachers who receive low salaries tend to leave first (Murnane et al., 1991). Congruent with past research (Murnane et al., 1991) and as predicted, it was found that beginning teachers who receive low salaries and who are dissatisfied with salary (regardless of what it was) are less likely to plan to continue to teach. Similarly, beginning teachers who are dissatisfied with their salary are more likely plan to leave and less likely to say that if they had it to do over again that they would become teachers (career choice commitment).

Though low salary predicts who plans to leave, there is no significant relationship between low salary and whether beginning teachers say that they would become teachers again. It may be that those beginning teachers who plan to leave like to teach but cannot earn enough money and that beginning teachers' perceptions of salary are more important than actual salary figures. A salary of \$20,000, for example, to one teacher may mean something entirely different to another because of differential costs of living.

2. *Incentive Pay*

Whether beginning teachers receive pay for being a master or mentor teacher, for teaching in a shortage field, for teaching in a high priority location, for advancing on a career ladder, or for performing well individually (merit pay) or on a school-wide basis has no significant impact on work or career choice commitment or on their plans to stay. This finding corroborates Berman & McLaughlin's (1978) important finding that extra pay for training in innovative programs was not necessarily related to the successful implementation of those programs. Furthermore, whether beginning teachers favor or oppose any of these forms of pay in principle has no significant influence on their work commitment, career choice commitment, and planned retention. Some argue that merit pay and career ladder plans do not work because they are unresponsive to teachers' professional needs and to the common beliefs shared by teachers (Rosenholtz & Smylie, 1984; Smylie & Smart, 1990). In fact, Smylie and Smart (1990) suggest that teachers themselves may not see a relationship between merit pay or career ladders and improved student learning. It is possible that teachers regard incentive pay as peripheral to their conception of teaching as a profession or may find it irrelevant because the additional pay in these programs usually represents so small an amount of money.

C. Level, Specialty Field, and Academic Background:
Alternative Career Opportunities

Teachers experience different aspects of the social organization of the workplace depending on the level at which they teach or on their area of specialty, which often amounts to the same thing since those who specialize in a subject matter discipline are most often found at the high school level. Teachers who teach in certain specialty fields and in the upper grades have greater access to alternative career opportunities and this, inevitably, bears on their work commitment, career choice commitment, as well as on their plans to stay in teaching. In addition, secondary school structures may provide fewer intrinsic rewards for teachers in the form of collegiality, close bonds with students, or supportive school climate. In the face of social organizational conditions in the schools that seem to push beginning teachers away and the availability of alternative career opportunities, many beginning teachers in certain specialties are not likely to become committed to their career choice or to stay in teaching.

1. Level of Teaching

The level at which beginning teachers teach significantly determines the level of their commitment to work, to their career choice, and their plans to remain in teaching. Middle school beginning teachers in this study appear to be significantly more discouraged with their work than elementary school teachers. It is

well known that teaching young adolescents today is becoming increasingly more demanding because of increased cultural and social stress on students in the middle school years. The social organization too of many middle schools make it difficult for teachers to respond to the distinctive needs of young adolescents today and may even contribute to fragmented relationships between teachers and students. In fact, recent studies have criticized middle school/junior high school social organizational structures as stressful and inappropriate for both students and teachers (Carnegie, 1989; Eccles & Midgley, 1991; McPartland, Coldiron, & Braddock, 1987). Additionally, many middle school teachers may not necessarily have training in dealing with the special needs of young adolescents, making work at this level even more frustrating.

Contrary to what was hypothesized and to past research on junior high teachers in general (Grissmer & Kirby, 1987), the middle school beginning teachers in the SASS survey are more likely but not significantly to be committed to their career choice or to say they would stay in teaching than elementary teachers; nevertheless these results did not reach statistical significance. That is, discouragement with one's work does not necessarily translate into defection for middle school beginning teachers. It may be that middle school beginning teachers' initial enthusiasm for the career- the idealism that motivates some to go into teaching- seems to outlive the immediate everyday work frustrations of teaching. This may combine with the possibility that some middle school teachers may not have specialties in subject matter

areas, which decreases access to alternative careers.

By contrast, high school teachers in their first year are more apt to say they will leave teaching than elementary teachers. This concurs with findings for teachers in general that attribute teacher attrition to the availability of alternative career opportunities (Murnane et al., 1991). But the level at which teachers teach is not the only factor that affects attrition; workplace conditions play a crucial role too (Darling-Hammond, Hudson, & Kirby, 1989). Not only do transferable skills give beginning teachers who specialize in certain subject matter fields access to alternative job opportunities, but the structure of most of today's high schools along the "factory model" makes it nearly impossible to meet the needs of beginning teachers who are particularly vulnerable to the effects of non-supportive workplace conditions.

2. Specialty Field of Teaching Assignment and Academic Degree

Past research indicates that specialty field shapes attrition patterns for teachers in general (Grissmer & Kirby, 1987; Murnane et al., 1991). This study found that, while beginning teachers' specialty field has no significant relationship to work commitment, it does predict career choice commitment and planned retention. Mathematics, science, and computer beginning teachers are less likely to say they were committed to their career choice and are

also less likely to plan to stay in teaching than elementary teachers. We know from other research that mathematics, science, and computer teachers tend to leave because they get paid more in other fields (Darling-Hammond, 1989). Although not as strongly predicted, the humanities and social science teachers and "other" teachers are also significantly less likely to plan to stay in teaching. These teachers also generally have more alternative career choices with better workplace conditions than elementary school teachers.

If beginning teachers as a whole are particularly vulnerable to poor workplace conditions, mathematics, science, and computer teachers are even more affected (Darling-Hammond, Hudson, & Kirby, 1989). Science teachers, for example, need laboratory equipment and supplies that schools often do not provide, while this would hardly be a problem in corporate or research settings. Workplace conditions may be particularly a problem for mathematics, science, and computer teachers because of the nature of their work. Not only that, they are oriented toward other fields making them more aware of the comparative differences in their fields; they have greater inducements to leave and greater access to alternative careers with greater pay. Workplace conditions, therefore, may be a decisive factor for mathematics, science, and computer beginning teachers in determining their career choice commitment and particularly their plans to stay in the profession.

Related to specialty field, the kind of preparation beginning teachers experience, even more than the number of degrees they

hold, shapes their plans to stay in teaching. Confirming past research on teachers in general (Darling-Hammond, 1984), beginning teachers with a degree in a discipline are more likely to plan to leave than those with a degree in education. This may be partly due to the fact that those who specialize in a discipline have more marketable and transferable skills and, therefore, other career opportunities.

Yet, those who specialize in a particular subject matter are the very people who we should not be losing. Grossman (1990) suggests that there is a connection between subject matter knowledge, pedagogical knowledge, and pedagogical content knowledge; that is, that those with a strong subject matter background and strong teacher education training are more likely to develop the pedagogical content knowledge necessary to teach effectively and creatively. Still, it is important to look at the failure of the social organization of schools to provide opportunities to augment beginning teachers' subject matter knowledge with pedagogical knowledge.

D. Demographic and Life Cycle Variables:

Age, Marital Status, Race, and Gender

This study indicates that whereas life cycle characteristics do not contribute to whether beginning teachers feel it is worthwhile to do their best work or whether they would choose teaching as a career again, age, marital status, and race do

significantly predict whether they say they will stay in teaching. The accessibility of alternative career options for women and minorities and for those with transferable skills in certain specialties (especially mathematics, science, and computer fields) combine with undesirable workplace conditions to discourage beginning teachers from remaining in the profession. Older teachers, those who are married, and those who identify themselves as minorities other than blacks are more likely to say they would stay in teaching.

Although Murnane and his colleagues (1991) demonstrated that whites are more likely to leave teaching than blacks, no differences between black and white beginning teachers were found in this study. One reason may be that the sample in this study was more comprehensive than Murnane and his colleagues', which was limited to two states. Older and married teachers may have fewer other employment opportunities and, therefore, may have little choice but to stay in teaching. Not only does this corroborate past research (Grissmer & Kirby, 1987; Murnane et al., 1991) but it also concurs with Becker's Side-Bet Theory (Reyes, 1990) that as teachers' personal and job-related investments increase, the desire to change occupations decreases. It is not clear, though, why "other minorities" are more likely to stay in teaching than whites, as opposed to blacks who are not significantly more likely than whites to plan to continue to teach. This is an area that ought to be investigated in the future.

In the past gender explained why many teachers were more

committed to teaching: career satisfaction and commitment to teaching were higher for women than men (Alutto et al. cited in Reyes, 1990; Chapman & Lowther, 1982).⁸ Traditionally, women and minorities were more likely to stay in teaching, perhaps because fewer alternative career opportunities were available. But with an increase in their career options, women and blacks are no longer in the teaching field for the same reasons and many leave. In fact, this study found that gender has no significant relationship to beginning teachers' feelings about whether it is worthwhile to do their best work, whether they feel committed to their career choice, or whether they plan to remain in teaching. The apparent trend that fewer women remain in teaching is particularly interesting because it registers the reality that as women develop other career options, teaching can no longer rely on what has been essentially a captive labor force. At the same time, there is another trend for fewer women to enter teaching than in the past: 79% of black women in the late 1940s who entered the labor market after graduating from college worked in the field of education while 23% of black female graduates in the mid-1980s became teachers; and 69% of white college-educated women worked in the field of education in the late 1940s as opposed to 24% who became

⁸Although "career choice commitment" in this study was measured by whether beginning teachers would prepare to become a teacher again if they had it to do over and "career satisfaction" in Chapman and Lowther's study was measured by teachers' overall satisfaction with teaching as a career and their progress made in the career, both concepts pertain to identification with their career.

teachers in the 1980s (Murnane, et al., 1991). Such major changes in demographics have had a great impact on beginning teachers' work commitment, career choice commitment, and planned retention.

II. Implications for Restructuring Teaching and for School District and State Policy

By far the most important finding of this study pertains to the crucial importance that beginning teachers assign to the social organizational structure of teaching. Beginning teachers' perceptions of school leadership and culture and teacher autonomy and discretion significantly shape the extent of their willingness to work, to commit to teaching as a career choice again, and to plan to stay in teaching. Not only do these findings demonstrate an important relationship between the workplace and beginning teachers' experiences, but they focus on the failure of the current system to provide supportive induction experiences. Too many beginning teachers are initiated into a profession that too often sets them up to fail. The system seems to neglect the fact that all beginning teachers, particularly those with mathematics, science, and computer specialties, are exceptionally vulnerable to the effects of poor workplace conditions; precisely because never having taught before, they lack the resources and tools to deal with the frustrations of the workplace. Because beginning teachers have invested less of their professional lives in teaching they are more likely to be frustrated by poor working conditions especially

compared to those in other fields. Thus, it is not surprising that beginning teachers' experience of the workplace inevitably affects their enthusiasm about their work and their commitment to teaching as a career choice. This is perhaps a reason for the paradoxical finding that beginning teachers are at once more committed yet are more likely to leave the field. Because the system does not make use of beginning teachers' zeal and in many cases fails even to recognize their special situation, many are leaving and we are wasting one of our most valuable resources. Unless we are able to create a work environment that is genuinely responsive to beginning teachers' needs, we may never be able to effectively channel their commitment.

From this study we know that despite the fact that beginning teachers themselves regard autonomy and discretion as a crucial determinant of work commitment, career choice commitment, and plans to stay in teaching, only 60% of beginning teachers feel that they and other teachers determine curriculum and discipline policies in their schools. When teachers collaborate and have opportunities to judge their own work in the classroom and in the school, they may be more equipped with the knowledge and skills to develop dynamic rather than routinized approaches to teaching. That is, beginning teachers who participate with other teachers in making decisions that affect student life may be able to be more responsive to students' needs; conversely, a system that is more responsive to beginning teachers might allow them to be more effective with students. It is not at all surprising then that collaborative

school leadership that responds to the needs of beginning teachers for autonomy and discretion strongly predict beginning teachers' work commitment, career choice commitment, and their desire to remain in the profession.

Beginning teachers view teacher decision making as a part of autonomy and discretion as well as a part of school leadership.⁹ Not only does it appear that beginning teachers experience autonomy and discretion as a function of school leadership but they even evaluate school leadership by how effectively it creates a school culture that is collaborative and supportive. The more beginning teachers feel that they can actively participate in making important decisions in their schools, the more positive view they have of school leadership; the more collaborative and supportive school leadership, the more involved teachers appear to be. It is the interdependence between beginning teachers' perceptions of teacher autonomy and discretion and school leadership that appears to play a crucial role in determining their work commitment, career choice commitment, and planned retention.¹⁰ The interdependence of different aspects of the social organizational structure of the school workplace implies that a systemic approach to changing the

⁹All items in perceived teacher autonomy and discretion and some items in perceived school leadership refer to teachers' as opposed to principals' responsibilities.

¹⁰Not surprisingly, higher salaries along with perceived workplace conditions determine beginning teachers' work and career choice commitment and planned retention but incentive pay appears to have no affect whatsoever. Once again, it seems as if money would be far better spent on improving the social organization of the schools and teachers' salaries.

organizational patterns of decision making within schools is likely worthwhile, contentment with their career choice, and their plans to remain in teaching.

Professional Development Schools, created recently in a number of states and districts, may be the best hope for addressing beginning teachers' needs and for providing a work environment that is conducive to professional growth where they are gradually introduced to the responsibilities of teaching and are given assistance from experienced colleagues. In such environments beginning teachers not only receive on-going evaluation and feedback from other teachers about their teaching so that they are better able to give sustained intelligent feedback to their students but they are also encouraged to participate in shaping school curriculum and discipline policy.¹¹ The overarching goal in these schools is that beginning teachers come to see teacher autonomy and discretion as inseparable from school leadership. During a formalized induction year, beginning teachers have opportunities for professional development that encourage collaboration and that provide the support that this study found is associated with stronger beginning teacher work and career choice commitment and plans to remain in teaching. It is likely that mentoring programs improve beginning teachers' effectiveness and decrease their typically high attrition. Recent proposals that

¹¹California's New Teacher Project is probably the most extensive state program in the country that supports new teachers and maximizes their success through mentoring programs.

first year teachers complete internships call for the kind of mentoring programs that are implemented by professional development schools.¹²

Though this study focuses on the special situation of beginning teachers it has far reaching implications for the workplace conditions for all teachers. Second year teachers who have completed a one year internship in schools that are structured to be responsive to their needs and their students' needs are more likely to feel the negative impact of non-collaborative cultures or unsupportive school leadership. Therefore, in addition to providing internships for beginning teachers, the profession ought to take concrete steps towards adequately preparing principals and other administrators by equipping them with the knowledge and skills necessary to transform their schools into environments that are more responsive to the needs of all teachers. If the goal is to improve communication and to include teachers in school leadership, then formal preparation where teachers, principals, and administrators participate together may be the best way to build in a self-renewing capacity for a staff to be supportive, cooperative, and resourceful.

Districts and states ought to redirect their efforts to redesign the workplace so that it becomes more responsive to what beginning teachers themselves are saying they need to teach.

¹²The Teaching Internship by Darling-Hammond, Gendler, & Wise (1990) offers the most comprehensive model for teaching internships.

District and state money can be better spent on restructuring schools and raising salaries overall than on limiting expenditures to incentive pay plans. State policies emphasizing teacher preparation and induction may ensure that beginning teachers experience a smoother transition from student teaching to beginning teaching and finally to full-fledged teaching. Without district and state-level support, it is difficult to make systemic structural changes at the core of the teaching profession or to create more responsive environments for beginning teachers.

Far from providing opportunities for professional interaction and encouraging participation in decision making, the social organizational structure of too many schools today creates conditions that may diminish beginning teachers' willingness to exert effort in their work, to commit to their career choice of teaching, and to plan to stay in teaching. Ordering teachers to be motivated to teach or to stay in the profession simply does not work. A number of states have enacted beginning teacher supervision programs, but many are not responsive to what beginning teachers are saying: it is as if we are telling our beginning teachers to "teach better" without the kind of supports that encourage them to grow professionally. Top-down narrowly defined mandates only reinforce already established beliefs that teachers are ineffective and uninvolved; and this perpetuates teachers' sense of their own powerlessness. By not responding to beginning teachers, we will not learn how to capitalize on their strengths; rather we will only continue to "fix" their weaknesses. Placing

beginning teachers in workplaces where teachers are not respected breeds frustration and makes it inevitable that they will decide to leave. It is not only that we are failing to prevent workplace problems from driving many beginning teachers from the field, but by ignoring beginning teachers' unique enthusiasm and commitment, initial "teachable moments" become lost learning opportunities (Ryan et al., 1980).

On the other hand, a system that responds to the unique situation of beginning teachers creates a genuine dialogue between teachers themselves and between teachers and administrators. Policy that responds to positive attributes of beginning teachers may actually inhibit negative aspects of the work environment from developing. More formalized support systems for beginning teachers such as Professional Development Schools will help to create more environments that are genuinely responsive to beginning teachers. By providing responsive environments for beginning teachers during their internship as well as afterwards, we teach our teachers how to become more responsive to their students and, in turn, to become better teachers.

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