

First-Year Experiences and Teachers' Professional Commitment: An Analysis of Schools and Staffing Survey for 1999-2000

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Abstract

This study examined teachers' first-year experiences and their intent to stay in teaching. The data used in this study came from the comprehensive National Center for Education Statistics (NCES) Schools and Staffing Survey (SASS) for 1999-2000. Results indicated that teacher induction and school leadership can influence teachers' intent to stay in teaching, and that teachers' first-year experiences can affect their intent to stay even at later stages of their careers. Implications of the results for teacher retention are discussed.

Introduction

Teachers' professional commitment has recently received great attention in educational research because of high teacher turnover and concerns about teacher shortages in the near future. The National Center for Educational Statistics (NCES) projects that student enrollment in kindergarten and first through twelfth grades will reach approximately 56.7 million by the year 2013. About 47.7 million teachers will be needed to meet the demand for the increased student enrollment. Schools have already experienced difficulty in staffing classrooms (Gerald & Hussar, 2003). As schools currently rely on alternative certification to recruit new teachers and fill teaching vacancies, increasingly high federal requirements for teacher qualifications will limit teacher supply from short cut licensing and exacerbate the problem of teacher shortages in the future (National Commission on Teaching and America's Future [NCTAF], 1996).

Results from earlier studies indicate that chronic teacher shortage may be due to limited supply of teachers in the teaching work force. However, Ingersoll (2001) found that teacher shortages do not stem from the absolute lack of qualified teachers in the population but rather from inordinately high employee turnover. Researchers now realize that teacher turnover (i.e., transferring to other schools or exiting the profession) significantly contribute to school staffing problems and teacher shortages (Darling-Hammond & Sykes, 2003; Ingersoll, 2001). Reports from the NCES revealed that the proportion of public school teachers who left the profession increased in the 1999–2000 and 2000–2001 school years, compared to that in the 1987–1988, 1988–1989, 1990–1991, and 1991–1992 school years (Luekens, Lyter, & Fox, 2004). Most public schools report that they have had some difficulties in retaining their teachers (Langdon, 1999). Teacher attrition is known to occur at the highest rate among beginning teachers (Darling-Hammond & Schlansky, 1996; Heyns, 1988; Ingersoll, 2001; Murnane, 1987; Murnane, Singer, & Willett, 1988). It is estimated that about one third of new teachers leave the teaching profession during the first three years and almost half after five years (Ingersoll, 2001).

Research in organizational behavior indicates that employee intent to leave is an antecedent of their eventual departure (Boe, Barkanic, & Leow, 1999; Miller, Brownell & Smith, 1999). Gersten, Keating, Yovanoff, and Harniss (2001) found that the relationship between employees' intent to leave and subsequent departure is apparently strong in the employee follow-up survey: 69% of respondents left their profession within the 15-month period. This suggests that teachers' perceptions of their jobs would be indicative of their turnover intent. In addition, the behavioral intention models (e.g., Theory of Reasoned Action; Theory of Planned Behavior) can shed much light on the effect of employees' perceptions of their job and their turnover. The behavioral intention models assume that a specific behavior is determined by the person's behavioral intention, and that perceptions, beliefs, and attitudes all influence behavioral intention and, in turn, one's actual behavior (Ajzen, 1991; Ajzen & Fishbein, 1980).

Teachers' perceptions of their jobs have been found to be related to teacher attrition (Darling-Hammond & Sykes, 2003; Ingersoll, 2001; Langdon, 1999; NCTAF, 1996). Whitener, Gruber, Lynch, Tingos, Perona, and Fondelier (1997) found that 15.3% of public school teachers who left the profession cited inadequate support from the administration as the main reason for their

dissatisfaction with teaching. Student discipline and behavioral problems were also associated with high teacher attrition (Langdon, 1999). Unsafe schools and disruptive student behaviors negatively impact teachers' commitment to their careers (Weiss, 1999). On the contrary, collaborative school environments and supportive school leadership are positively related to teachers' decision to stay in the teaching profession (Chapman & Green, 1986; Weiss, 1999). Teacher induction programs also help enhance teachers' career commitment (Smith & Ingersoll, 2004). Induction programs have been linked to reduced attrition rates among new teachers as well as improved teaching capabilities (NCTAF, 1996; Weiss, 1999).

Research on teacher induction indicates that the first three years of teaching are the most critical period in a teacher's career. Teachers' experiences in their early years of employment (e.g., induction programs) can have a long-term impact on teachers' career commitment (Chapman & Green, 1986; Feiman-Nemser, 1983; Fideler & Haselkorn, 1999). Studies have been conducted to understand the specific needs of new teachers during the early years in their careers and to identify areas that should be covered in an induction program. Mentoring has become the most common component of induction programs for new teachers (Fideler & Haselkorn, 1999; Humphrey, Adelman, Esch, Riehl, Shields, & Tiffany, 2000) with a goal of increasing retention of teachers in the early years (Huling-Austin, 1992). Studies indicate that new teachers who receive mentoring are likely to remain in teaching (Darling-Hammond & Sykes, 2003; Humphrey et al., 2000; NCTAF, 1996). Smith and Ingersoll (2004) have recently found that beginning teachers who had mentors in the same field were less likely to move to another school or leave the profession than those who had mentors in other fields.

Although many studies have investigated factors that contribute to teacher retention, little is known about how teachers' first-year experiences affect their long-term commitment to teaching profession. There is a need to understand the relationship between first-year teachers' experiences and teachers' long-term career commitment. The present study examines possible relationships between teachers' intent to stay in teaching and teachers' first year experiences related to teacher induction, support for new teachers, and teachers' work loads. In particular, we use nationally representative data to examine how first year experiences impact teachers' professional commitment among first-year, novice, and veteran teachers.

The data came from the 1999-2000 Schools and Staffing Survey (SASS), a nationally representative survey conducted by the NCES. The U.S. Census Bureau collected the SASS data for NCES from a random sample of schools stratified by state, public/private sector, and school level. The sample for this study included 42,086 teachers in 8,712 public schools from kindergarten through twelfth grades.

This study adapted the definition of new and experienced teachers from the NCES Teacher Follow-Up survey report (Whitener et al., 1997). Teachers were classified into three groups based upon years of teaching experience: first-year teachers who have taught for one year or less, novice teachers who have taught for two to three years, and veteran teachers who have taught for four years or more. There were 2,215 first-year teachers; 4,435 novice teachers; and 35,436 veteran teachers. The unequal sample sizes are due to the fact that the different proportions of teachers with varying years of teaching experiences in the population may have resulted in the unequal probabilities of their selection into the sample. Nevertheless, such classification allowed us to study the effect of first-year experiences on teachers' professional commitment while controlling for their career stage, that is, we first analyzed the data based on the first-year teachers while excluding the novice teachers and veteran teachers. We then conducted similar analyses for the novice teachers and for the veteran teachers respectively. We did not combine the three groups in the analyses for a substantive reason as well as for a methodological concern. From a substantive point of view, teachers at different stages of their career may vary in their tendency for career move. They should be examined in separate analyses to control for their differential degrees of professional commitment. From a methodological point of view the combination of the three groups may give rise to the issue of unequal sample sizes, which may require some prior weighting of the three groups. While controlling for teachers' career stage by analyzing the data separately for the three groups, we can resolve the problem of unequal sample sizes without complicating the analyses.

The ensuing analyses used the teachers' answers to the questionnaire item "How long do you plan to remain in teaching?" as the dependent variable, which measures teachers' intent to stay in teaching. The respondents were assigned to one of the five mutually exclusive categories: (a) as long as I am

able; (b) until I am eligible for retirement; (c) will probably continue unless something better comes along; (d) definitely plan to leave teaching as soon as I can; and (e) undecided at this time.

The independent variables were teachers' various experiences in their first year of teaching (e.g., an induction program, support for teachers, teachers' duties, and mentoring). The measure of an induction program indicates whether teachers participated in a teacher induction program during their first year of teaching. The indicators for teacher support during a teacher's first year of teaching include: (a) reduced teaching schedule; (b) reduced number of preparations; (c) common planning time with teachers in their subject; (d) seminars or classes for beginning teachers; (e) extra classroom assistance (e.g., teacher aides); and (f) regular supportive communication with the principal, other administrators, or department chair. The indicators for teacher duties during the first year of teaching include: (a) extracurricular assignments; (b) travel to more than one school to teach; (c) administrative duties (including lunchroom, hall, and recess duties); and (d) classes with discipline problems. The indicators for mentoring include (a) working closely with a master or mentor teacher from same field; and (b) working closely with a master or mentor teacher from other field. The Appendix lists all the variables used in the study.

Analyses

Multinomial logistic regression was used to examine the relationship between various first-year experiences and teachers' intent to stay. This type of analysis is appropriate because the dependent variable (i.e., teachers' intent to stay) has five categories. Multinomial logistic regression is an extension of binary logistic regression and is suitable for a dependent variable that contains more than two categories (Agresti, 2002). One category is defined as a reference category (i.e., undecided at this time), and multinomial logistic regression analysis uses this reference category in calculating several binary logits. The logit model expresses the log odds of being in the reference category versus being in another category as a linear function of the explanatory variables. Predictions of those log-odds are based on the estimated coefficients for those explanatory variables in the multinomial logistic model.

The estimated coefficient for an explanatory variable represents the change in the log odds of choosing a particular response category vs. the reference response category, and such a change in the log-odds is associated with a one-unit change in a particular explanatory variable. If we take the exponential function of log-odds, it becomes an odds-ratio. An odds-ratio greater than one represents a higher likelihood of choosing a particular response category over the reference category, whereas an odds-ratio less than one represents a decrease in the likelihood of a particular response category. For the current study, four multinomial regression models were generated for each of the three groups of teachers (first-year, novice, and veteran teachers). The four models for each dependent variable category were examined and discussed.

We regressed the multiple categorical responses regarding teachers' intent to stay on four separate groups of predictors: induction (Model 1); reduced schedule, reduced preparations, common planning time, seminars, extra classroom assistance, and regular supportive communication (Model 2); extracurricular assignments, more than one school to teach, administrative duties, and discipline problems (Model 3); mentor from same field and mentor from other field (Model 4). We ran the above-mentioned four models separately on the three groups of teachers (i.e., first-year, novice, and veteran teachers).

Results

Tables 1 and 2 (see following pages) show the results for Model 1 and Model 2. Table 1 lists the estimated coefficients for the predictors in each model and the change in the odd ratio associated with the predictors. Table 2 contains the predicted probabilities of teachers' intent to stay for a relevant predictor when controlling other predictors in the same model. Similarly, Tables 3 and 4 provide the estimated coefficients for the predictors in Model 3 and Model 4 and those predicted probabilities of teachers' intent to stay.

The results of the multinomial logistic regression analyses for Model 1 (an induction program) are shown in Table 1. The results of the predicted probabilities of intent to stay for Model 1 are shown in Table 2. Model 1 examines the relationship between teachers' intent to stay in teaching and participating in a teacher induction program during the first year. It appears that participating in an induction program during the first year reduced the

Multinomial Logistic Regression Analysis of Intent to Stay-Models 1 and 2

	As Long As I am Able			Until I am Eligible for Retirement			Will Probably Continue Unless Something Better Comes Along			Definitely Plan to Leave		
	First	Novice	Veteran	First	Novice	Veteran	First	Novice	Veteran	First	Novice	Veteran
<i>Model 1</i>												
Induction	-.143 (.866)	.002 (1.002)	.108 (1.114)	-.009 (.991)	-.020 (.980)	.076 (1.079)	-.51 (.951)	-.66 (.936)	.019 (1.019)	-.594** (.552)	-.098 (.906)	.154 (1.166)
<i>Model 2</i>												
Reduced schedule	-.230 (.795)	.301 (1.351)	-.463* (.629)	-.501 (.606)	-.311 (1.365)	-.436 (.646)	-.497 (.609)	.363 (1.437)	-.836** (.433)	-.270 (.763)	-.362 (.696)	-.473 (.623)
Reduced preparations	-.149 (.862)	-.199 (.819)	.519** (1.680)	-.388 (.678)	-.018 (.982)	.359 (1.432)	.210 (1.233)	-.045 (.956)	.491* (1.633)	.233 (1.263)	.443 (1.558)	.069 (1.071)
Common planning time	.139 (1.150)	.167* (1.182)	.062 (.940)	.262 (1.300)	.223* (1.250)	-.096 (.909)	.046 (1.047)	-.280** (.756)	-.164 (.849)	-.251 (.778)	.255 (1.291)	-.194 (.824)
Seminars/or classes	-.097 (.907)	-.034 (.966)	.189* (1.208)	-.071 (.931)	-.205* (.814)	.098 (1.102)	-.050 (.951)	-.027 (.974)	.069 (1.071)	-.593** (.553)	.019 (1.020)	.441** (1.554)
Extra classroom assistance	.357** (1.430)	.173* (1.189)	.124 (1.132)	-.067 (.935)	-.166 (.847)	-.007 (.993)	-.113 (.893)	-.226* (.798)	-.185 (.831)	-.76* (.484)	-.463* (.629)	-.310 (.733)
Regular supportive communication	.267* (1.306)	.299** (1.348)	.285** (1.330)	.453** (1.573)	.436** (1.547)	.256* (1.292)	-.104 (.901)	.220* (1.246)	.042 (1.043)	-.697** (.498)	-.291 (.747)	-.409** (.664)

Note: Figures in brackets are odds ratio. * $p < .1$, ** $p < .05$.

Table 2
Predicted Probability of Intent to Stay: Models 1 and 2

	As Long As I am Able			Until I am Eligible for Retirement			Will Probably Continue Unless Something Better Comes Along			Definitely Plan to Leave		
	First	Novice	Veteran	First	Novice	Veteran	First	Novice	Veteran	First	Novice	Veteran
Model 1												
Induction	50.84	45.81	44.25	13.44	15.70	18.91	13.51	16.09	16.50	1.96	3.23	4.33
No induction	53.22	44.97	41.33	12.29	15.75	17.34	12.89	16.90	19.49	3.22	3.50	4.63
Model 2												
Reduced schedule	43.93	42.46	34.29	7.93	15.33	16.85	13.19	21.75	14.02	7.27	2.55	5.82
Reduced preparations	38.76	34.39	41.47	7.22	14.74	16.91	21.73	19.32	23.94	9.78	7.63	4.53
Common planning time	45.94	43.57	36.82	12.30	16.47	17.04	16.40	13.41	19.75	5.35	5.55	5.53
Seminars or classes	43.28	40.01	38.10	10.52	12.05	16.64	17.78	19.41	20.06	4.54	4.93	8.40
Extra classroom assistance	55.29	47.19	48.28	8.56	12.02	22.41	13.54	15.25	10.34	3.22	2.92	5.17
Regular supportive communication	49.88	42.69	41.38	14.22	17.50	19.23	13.49	18.99	19.27	3.28	2.76	3.54
No support	43.45	39.6	36.02	10.28	14.2	17.24	17.03	19.1	21.39	7.48	4.6	6.17

likelihood of intent to leave, although statistically significant association was found only for first-year teachers (see Table 1). That is, the relation of induction to teachers' intent to leave was greater for first-year teachers than for those who had already had more than two years of experience.

First-year teachers who participated in an induction program were less likely to report that they definitely planned to leave than those who did not participate in an induction program ($B = -.594, p = .041$) (see Table 1). In fact, the odds of their planning to leave teaching decreased by .552. The predicted probabilities of planning to leave teaching were lower for teachers who participated in an induction program during the first year (1.96% for first-year teachers, 3.23% for novice teachers, 4.33% for veteran teachers), compared to those who did not participate in an induction program during the first year (3.22% for first-year teachers, 3.5% for novice teachers, 4.63% for veteran teachers) (see Table 2).

The results of the multinomial logistic regression analyses for Model 2 (professional support) are shown in Table 1. The results of the predicted probabilities of intent to stay for Model 2 are shown in Table 2. Model 2 examines the relationship between teachers' intent to stay in teaching and professional support in their first year: reduced teaching schedule; reduced number of preparations; common planning time with teachers in their subject area; seminars or classes for beginning teachers; extra classroom assistance (e.g., teacher aides); and regular supportive communication with the principal, other administrators, or the department chair.

Overall, teachers who had either extra classroom assistance or regular supportive communication with school leadership (the principal, other administrators, or the department chair) were more likely to plan to remain in teaching as long as they are able, regardless of the number of years in teaching (see Table 1). Conversely, these teachers were less likely to plan to leave. Extra classroom assistance had a statistically significant relationship with first-year teachers' plans to remain in teaching as long as they were able ($B = .357, p < .05$). Specifically, the odds of planning to remain in teaching as long as they were able increased by 1.43 for first-year teachers who experienced extra classroom assistance during the first year. The predicted probability of planning to remain in teaching as long as they were able was higher for first-year teachers who experienced extra classroom assistance during the first year (55.29%), compared to those who experienced no such assistance during the first year (43.45%) (see Table 2).

For both first-year and veteran teachers, regular supportive communication with school leadership significantly reduced likelihood of planning to leave ($B = -.697, p = .026$ for first-year teachers; $B = -.409, p = .049$ for veteran teachers) (see Table 1). The odds of planning to leave reduced by .498 for first-year teachers and by .664 for veteran teachers. The predicted probability of planning to leave teaching was lower for teachers who experienced regular supportive communication with school leadership during the first year (3.28% for first-year teachers, 3.54% for veteran teachers), compared to those who experienced no such support during the first year (7.48% for first-year teachers, 6.17% for veteran teachers) (see Table 2).

Novice and veteran teachers who had supportive communication with school leadership during their first year were more likely to plan to remain in teaching as long as they were able ($B = .299, p = .003$ for novice teachers; $B = .285, p = .017$ for veteran teachers) (see Table 1). The odds of planning to remain as long as they were able increased by 1.348 for novice teachers and by 1.33 for veteran teachers. The predicted probability of planning to remain in teaching as long as they were able was higher for teachers who experienced regular supportive communication with school leadership during the first year (42.69% for novice teachers, 41.38% for veteran teachers), compared to those who experienced no such support during the first year (39.6% for novice teachers, 36.02% for veteran teachers) (see Table 2).

First-year and novice teachers who had regular supportive communication with school leadership during the first year were more likely to plan to remain in teaching until they were eligible for retirement ($B = .453, p = .032$ for first-year teachers; $B = .436, p = .001$ for novice teachers) (see Table 1). The odds of planning to remain in teaching until eligible for retirement increased by 1.573 for first-year teachers and by 1.547 for novice teachers. The predicted probability of planning to remain in teaching until eligible for retirement was higher for teachers who experienced regular supportive communication with school leadership during the first year (14.22% for first-year teachers, 17.5% for novice teachers), compared to those who experienced no such support during the first year (10.28% for first-year teachers, 14.2% for novice teachers) (see Table 2).

Seminars or classes for beginning teachers during the first year was significantly related to first-year and veteran teachers' intent to leave (see Table 1). While the direction of the coefficients was negative for first-year

teachers ($B = -.593, p = .049$), it was positive for veteran teachers ($B = .441, p = .027$). The predicted probabilities indicated that first-year teachers who experienced seminars or classes for beginning teachers during the first year were less likely to plan to leave teaching (4.54%), compared to those who had no such support (7.48%) (see Table 2). Veteran teachers who attended seminars or classes during the first year were more likely to report that they definitely planned to leave teaching (8.4%), compared to those who experienced no such support (6.17%).

For veteran teachers, reduced number of preparations during the first year was associated with increased likelihood of planning to stay in teaching as long as they were able ($B = .519, p = .024$), while reduced schedule during the first year was associated with decreased likelihood of reporting plans to stay in teaching until something better comes along ($B = -.836, p = .013$) (see Table 1). For veteran teachers who received a reduced number of preparations during the first year, the odds of planning to stay in teaching as long as they were able increased by 1.68 (see Table 1) and the predicted probability was 41.47% (see Table 2). For veteran teachers who received reduced schedules during the first year, the odds of planning to stay in teaching unless something better comes along decreased by .433 and the predicted probability was 14.02%.

Common planning time during the first year was associated with decreased likelihood of novice teachers planning to stay in teaching until something better comes along ($B = -.280, p = .017$) (see Table 1). Specifically, the odds of planning to stay in teaching until something better comes along decreased by .756 and the predicted probability was 13.41% (see Table 2).

The results of the multinomial logistic regression analyses for Model 3 (teachers' workload) are shown in Table 3 (see next page). The results of the predicted probabilities of intent to stay for Model 3 are shown in Table 4 (see page after next). Model 3 examines the relationship between teachers' intent to stay in teaching and whether teachers experienced the following kinds of duties during the first-year: extracurricular assignments; travel to more than one school to teach; administrative duties (including lunchroom, hall, and recess duties); and classes with discipline problems.

Classes with discipline problems during the first year were associated with decreased likelihood of teachers' planning to stay in teaching as long as they were able or until they were eligible for retirement, although the

Table 3
Multinomial Logistic Regression Analysis of Intent to Stay – Models 3 and 4

	As Long As I am Able			Until I am Eligible for Retirement			Will Probably Continue Unless Something Better Comes Along			Definitely Plan to Leave		
	First	Novice	Veteran	First	Novice	Veteran	First	Novice	Veteran	First	Novice	Veteran
Model 3												
Extracurricular assignments	-.073 (.930)	-.024 (.976)	.044 (1.045)	.214 (1.239)	.032 (1.032)	.019 (1.020)	.301* (1.352)	.194* (1.215)	.184 (1.202)	.248 (1.282)	.340* (1.405)	.035 (1.036)
More than one school to teach	.226 (1.253)	.037 (1.038)	.125 (1.133)	.211 (1.235)	.072 (1.075)	.234 (1.264)	.565** (1.759)	.160 (1.174)	-.068 (.934)	.460 (1.585)	-.471 (.624)	.089 (1.093)
Administrative Duties	-.104 (.901)	.083 (1.087)	-.071 (.932)	-.045 (.956)	.231** (1.260)	-.153 (.858)	-.155 (.857)	.007 (1.007)	-.171 (.843)	-.109 (.897)	-.214 (.807)	.011 (1.011)
Discipline problems	-.091 (.913)	.261** (.770)	-.160 (.852)	-.280* (.756)	.232** (.793)	-.149 (.861)	.262 (1.299)	-.011 (.989)	-.072 (.930)	.266 (1.304)	.372* (1.451)	.128 (1.136)
Model 4												
Mentor from same field	-.060 (.942)	.092 (1.097)	-.137 (.872)	-.190 (.827)	.237 (1.268)	-.177 (.838)	-.333** (.717)	.032 (.968)	-.145 (.865)	-.718** (.488)	.181 (1.198)	-.352 (.704)
Mentor from other field	-.085 (.919)	.	.	-.304 (.738)	.	.	-.379* (.684)	.	.	-1.003** (.367)	.	.

Note: Figures in brackets are odds ratio. * $p < .1$, ** $p < .05$.

Predicted Probability of Intent to Stay: Models 3 and 4

	As Long As I am Able			Until I am Eligible for Retirement			Will Probably Continue Unless Something Better Comes Along			Definitely Plan to Leave		
	First	Novice	Veteran	First	Novice	Veteran	First	Novice	Veteran	First	Novice	Veteran
Model 3												
Extracurricular assignments	51.54	47.47	43.55	15.80	14.89	18.95	12.37	16.54	19.70	2.18	3.22	3.51
More than one school to teach	56.89	49.84	45.40	12.90	15.32	22.59	13.18	15.78	14.72	2.21	1.41	3.56
Administrative duties	55.75	50.58	44.99	13.61	17.40	18.48	8.75	13.13	16.01	1.70	1.77	3.97
Classes with discipline problems	54.75	44.82	41.82	10.42	13.69	18.86	12.85	16.11	17.96	2.40	3.99	4.53
No duties	57.06	50.21	44.18	13.13	14.9	19.71	9.42	14.06	17.38	1.75	2.37	3.59
Model 4												
Mentor from same field	52.72	46.51	44.22	12.84	17.53	18.70	12.26	14.74	16.46	1.95	3.35	4.07
Mentor from other field	53.42	46.04	44.34	11.90	15.01	19.52	12.15	16.53	16.63	1.52	3.04	5.06
No mentor	49.6	.	.	13.76	.	.	15.15	.	.	3.54	.	.

effect was statistically significant only for novice teachers ($B = -.261, p = .004$; $B = -.232, p = .041$, respectively) (see Table 3). The odds of planning to stay in teaching as long as they were able decreased by .77, and the odds of planning to stay in teaching until eligible for retirement decreased by .793. The predicted probabilities indicated that novice teachers who experienced classes with discipline problems during the first year were less likely to plan to stay in teaching as long as they were able (44.82%) or until they were eligible for retirement (13.69%), compared to those who experienced no such duties during the first year (50.21%, 14.9%, respectively) (see Table 4).

Classes with discipline problems during the first year were associated with increased likelihood of teachers planning to leave, although the effect was statistically insignificant (see Table 3). It appears that the relation of classes with discipline problems to teachers' plans to leave increases in significance with teachers' experience. For instance, when teachers experienced classes with discipline problems (as beginning teachers), the predicted probability of planning to leave was 2.4% for first-year teachers, 3.99% for novice teachers, and 4.53% for veteran teachers (see Table 4).

Generally, administrative duties during the first year was negatively related to first-year and veteran teachers' intent to stay as long as they were able or to stay until they were eligible for retirement, while positively related to novice teachers' intent to stay. Statistically significant association, however, was found only for novice teachers' plans to stay in teaching until eligible for retirement (see Table 3). Novice teachers who had administrative duties during the first year were more likely to plan to stay in teaching until they were eligible for retirement ($B = .231, p = .045$) (see Table 3). The odds of planning to stay in teaching until eligible for retirement increased by 1.26. The predicted probability of planning to stay until eligible for retirement was higher for novice teachers who experienced administrative duties during the first year (17.4%), compared to those who experienced no such duties during the first year (14.9%) (see Table 4).

First-year teachers who traveled to more than one school to teach during the first year were more likely to plan to continue unless something better comes along ($B = .565, p = .044$) (see Table 3). The odds of planning to continue unless something better comes along increased by 1.759. The predicted probability of planning to continue unless something better comes along was higher for first-year teachers who had traveled to more than one school to

teach during the first year (13.18%), compared to those who experienced no such duties during the first year (9.42%) (see Table 4).

The results of the multinomial logistic regression analyses for Model 4 (mentoring) are shown in Table 3. The results of the predicted probabilities of intent to stay for Model 4 are shown in Table 4. Model 4 examines the relationship between teachers' intent to stay in teaching and mentoring in the first year. Although mentoring was related to first-year teachers' intent to stay, it was not a strong predictor of teachers' intent to stay for more experienced teachers. First-year teachers who had a master or mentor teacher either from the same field ($B = -.718$, $p = .021$) or other field ($B = -1.003$, $p = .033$) were less likely to plan to leave (see Table 3). The odds of planning to leave decreased by .488 for first-year teachers who had a master or mentor teacher from the same field and by .367 for those who had a master or mentor teacher from other field. The predicted probabilities of planning to leave were 1.95% for first-year teachers who had a master or mentor from the same field and 1.52% for first-year teachers who had a master or mentor from other field (see Table 4).

Discussion

This study investigated the effects of various first-year experiences on teachers' intent to stay among first-year, novice, and veteran teachers in public schools. A series of analyses were conducted to shed light on teachers' professional commitment. Understanding how first-year experiences affect teachers' intent to stay could help policy makers develop possible solutions to curbing the high teacher turnover that has plagued our education for so long. This study found that various first-year experiences had differential impacts on teachers' intent to stay in the profession, and that the impacts may vary over time.

Teacher induction enhanced first-year teachers' intent to stay in teaching, and this is consistent with the findings from many previous studies (Darling-Hammond & Sykes, 2003; Humphrey et al., 2000; NCTAF, 1996; Smith & Ingersoll, 2004). However, we did not find that teacher induction had a strong influence on teachers' intent to stay in teaching at later stages of their career. Teacher induction seems to work better with new teachers at the early stage of their career, but the long-term impact of teacher induction on teachers'

intent to stay is not very strong. This suggests that different strategies should be designed to retain teachers who are at their different stages of career, and that strategies should focus on the different challenges and needs that teachers face in the course of their career development.

In particular, participation in seminars for beginning teachers was positively related to first-year teachers' intent to stay, but it did not have the same effect on more experienced teachers. It is possible that the positive effect wears off at later stages of teachers' careers or maintaining professional commitment requires unremitting professional development. These results suggest that schools should encourage teachers to continuously engage in professional development by participating in seminars and other improvement activities.

One salient finding was that student discipline problems not only had an adverse impact on novice teachers' intent to stay but also had a long-term negative effect on teachers' professional commitment. Previous studies also found that student discipline problems contributed to teacher attrition (Langdon, 1999; Weiss, 1999; Whitener et al., 1997). Although policy makers have designed many strategies aimed at retaining teachers, their retention strategies have seldom emphasized resolving student discipline problems. Our study showed that student discipline problem could have sustained unfavorable effects on teachers' professional commitment. Our own experiences with teachers also indicated that many teachers had entered teaching with a zeal for the profession but eventually left teaching because of bad experiences with rowdy students in classroom. It is student discipline problems that ultimately wear out their initial enthusiasm about teaching. So strategies to retain teachers should also focus on establishing disciplinary order in school and improving teachers' work condition in classroom.

We also found that supportive communication with administrators in the first-year was positively related to teachers' professional commitment, and such an effect remained strong even at the later stages of teachers' career. Not only does this finding coincide with that from past research (Chapman & Green, 1986; Weiss, 1999), but it also shows that supportive school leadership can play an important role in enhancing teachers' professional commitment for the long run. The results from our study suggest that school leaders should create a supportive school climate for first-year teachers. Both formal and informal communication between principals and teachers can help first-year teachers

develop positive attitudes toward their school and teaching profession. Also, school principals can help alleviate teachers' frustration during their first year by providing additional resources and help.

In addition, the results from our study imply that first-year experiences would potentially have some long-term effects on teachers' professional commitment throughout their career. So it is important to let teachers have positive experiences in their first year teaching. Induction programs, mentoring, extra aids and resources, and administrative support during the first year of teaching all contributed to improved professional commitment. Schools should provide first-year teachers with additional resources and support to familiarize them with their new job. For example, having an experienced mentor in the same teaching field can help first-year teachers meet many challenges at their new job (Smith & Ingersoll, 2004).

Finally, we hope that our study will serve to initiate and provoke further dialogue about what schools as an institution can do to improve teachers' work experience and professional commitment. We demonstrated how individual teachers feel about first-year experiences and how their first-year experiences then affect their commitment to the teaching profession. It would be more interesting to learn in which kind of schools teachers experienced a smooth transition in their first-year and which school characteristics are conducive to positive first-year experiences. Identifying those school characteristics may inform policy makers about necessary changes that are needed to improve teachers' work condition in their first-year. For example, many schools currently adopt participatory school governance. Is site-based school management more conducive to supportive communication between school administrators and teachers? Similarly, did most teachers in schools with a formal induction program have positive first-year experiences? Answering those questions requires additional studies; and future studies can identify school characteristics and practices that can improve teachers' first-year experience and professional commitment.

This research was supported by a grant from the American Educational Research Association, which receives funds for its "AERA Grants Program" from the National Science Foundation and the U.S. Department of Education's

National Center for Education Statistics and the Office of Educational Research and Improvement under NSF Grant #REC-99805673. Opinions reflect those of the authors and do not necessarily reflect those of the granting agencies.

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Appendix

Construction of Variables Used in the Analysis

Teacher Planned Retention

How long do you plan to remain in teaching?

1 = As long as I am able; 2 = Until I am eligible for retirement; 3 = Will probably continue unless something better comes along; 4 = Definitely plan to leave teaching as soon as I can; 5 = Undecided at this time

Model 1. Induction Program

In your first year of teaching, did you participate in a teacher induction program?

(1=Yes, 0=No)

Model 2. Support

Did you receive the following kinds of support during your first year of teaching?

- a. Reduced teaching schedule (1=Yes, 0=No)
- b. Reduced number of preparations (1=Yes, 0=No)
- c. Common planning time with teachers in your subject (1=Yes, 0=No)
- d. Seminars or classes for beginning teachers (1=Yes, 0=No)
- e. Extra classroom assistance (e.g., teacher aides) (1=Yes, 0=No)
- f. Regular supportive communication with your principal, other administrators, or department chair (1=Yes, 0=No)

Model 3. Duties

Were the following duties part of your first-year teaching assignment?

- a. Extracurricular assignments (1=Yes, 0=No)
- b. Travel to more than one school to teach (1=Yes, 0=No)
- c. Administrative duties (including lunchroom, hall, and recess duties) (1=Yes, 0=No)
- d. Classes with discipline problems (1=Yes, 0=No)

Model 4. Mentoring

Mentor from same field. 1 = In first year of teaching, teacher worked closely with a master or mentor teachers from the same subject area; 0 = Otherwise

Mentor from other field. 1 = In first year of teaching, teacher worked closely with a master or mentor teachers from other area; 0 = Otherwise