

Full-Time Teaching Internships: A Public School-University Partnership Designed to Increase Teacher Retention in Urban Area Schools

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Abstract

In response to teacher shortages and concerns over teacher turnover and attrition rates, especially in urban schools, an urban teaching internship supported by intensive mentoring and other induction procedures was designed and implemented. When compared to national, state, and program peers, data from the current study indicate statistically significant lower attrition rates among teachers completing an innovative internship. Additionally findings indicated lower turnover rates among the interns when compared to the teacher turnover rates for the schools in which they were employed. These results along with prior research findings provide support for continuation of the program as well as implications for further investigations.

Keywords: "Teacher Retention", "Urban Schools", "University Partnerships", "Teacher Education", "Teacher Turnover"

Introduction

The high rate of teacher turnover is a decade's old, complex, and costly problem for America's schools. The costliness of this problem is directly reflected by the \$7.34 billion spent annually by schools and districts to recruit and train teachers to replace those who departed (National Commission on Teaching and America's Future, 2007) as well as the detrimental impact that high turnover has on a school's ability to be effective. Despite numerous efforts to address this issue, the persistently high teacher turnover rate is becoming even more problematic as the ballooning of the teacher force from approximately 2.6 million in 1987-88 to nearly 3.9 million in 2008-09 (Ingersoll, Merrill, & Stuckey, 2014; National Center for Educational Statistics SASS, 2011) means the actual numbers of teachers leaving the profession or changing schools is growing, thus the related costs and detrimental impacts on instructional quality will be swelling proportionately. Because the turnover rate is highest among the newest teachers, induction programs and mentoring for first year teachers have been widely implemented in the hopes of stemming the tide of new teacher turnover. While the percentage of beginning teachers participating in some type of induction activities has nearly doubled from 40% in 1990 to nearly 80% in 2008 (Ingersoll & Strong, 2011; Alliance for Excellent Education, 2011) the attrition rate for first year teachers has increased 34%, rising from 9.8% in 1989 to 13.1% in 2009 (Perda, 2013). It appears that all induction programs are not created equally as the design and implementation of induction activities varies widely in terms of their intensity and comprehensiveness ranging from activities as sparse as an orientation meeting for new teachers, to more comprehensive programs including critical elements such as the assignment of carefully selected, trained mentors and planned opportunities for collaboration with others teachers.

A review of the impact of new teacher induction efforts indicated that program effectiveness was directly related to the quality and quantity of induction program elements that were provided to first year teachers (Haynes, Maddock, & Goldrick, 2014; Ingersoll & Strong, 2011).

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The issues of new teacher attrition as well as teacher turnover are even more compelling in high-poverty urban area schools where the existence of comprehensive induction programs are less common (Darling-Hammond, Wei, Andree, Richardson, & Orphanos, 2009) and the teacher turnover rate is significantly higher than the turnover rates experienced by more affluent schools (Boyd, Lankford, Loeb, Ronfeldt, & Wyckoff, 2011; Darling-Hammond, 2010). Bearing in mind the propositions mentioned above, this article describes a yearlong, full-time, paid teaching internship program situated in urban area school districts that included a comprehensive mentoring and induction program intended to enhance the retention rates of teacher interns as teachers in these schools. In an effort to measure the impact of the program implemented as the result of a professional partnership between a university and urban area school districts; the retention, turnover, and attrition rates among the participating interns are compared with extant national, state, and local comparison groups are reported.

Background

National Teacher Turnover Rates

Based on data reported by the National Center for Education Statistics (NCES) (Goldring, Taie, Riddles, & Owens, 2014) the national turnover rates (the combination of teachers transferring to different schools and leaving the classroom) for public school teachers have been consistently high over the past 25 years. During the 12 years leading up to the twenty-first century, the average annual turnover rate was 13.2%. From 2000 – 2012-13, the last available Teacher Follow-up Survey (TFS), the average turnover rates for public school teachers was 15.7%, which is approximately twice the average turnover rates for technical and scientific professionals who are perceived to enjoy a higher status in our society (Ingersoll, 2004). While the 19% increase in the average turnover rate for the first years of the twenty-first century compared to the last 12 years of the twentieth century is reasonable cause for concern, the extent of the teacher turnover problem becomes more apparent when considering the total numbers of teachers that annually transfer to different schools (movers) and leave the classroom to pursue endeavors other than teaching (leavers). With the dramatic growth of the teacher workforce, teachers have become the largest occupational group in the United States (Ingersoll, et al., 2014). In 1987-88 the public school teacher workforce consisted of nearly 2.4 million teachers. Of this group 320,700 individuals (13.4%) transferred to a different school or did not return to the classroom for the 1988-89 school year. In 2011-12 the public school teacher force consisted of nearly 3.4 million teachers. Of this group 531,300 individuals (15.7%) either changed schools or did not return to teaching during the 2012-13 school year (Goldring et al., 2014).

Impacts of Higher Beginning and Urban Teacher Turnover

It is important to note that teacher turnover rates are not homogeneously distributed across all demographic factors related to teachers and schools. For example, the 29% turnover rate among first year teachers (Ingersoll, 2004) is nearly twice as high as the 15.7% average national average teacher turnover rate reported above. Further, the turnover rate for first-year teachers was almost evenly split between those new teachers who moved to a different school (15%) and those individuals who left the profession (14%) (Ingersoll, 2004). The attrition or quitting rates among first year teachers has increased steadily, resulting in a 34% increase between the 1988-89 and 2008-09 school years (Ingersoll et al., 2014). In addition, the most recently reported cumulative teacher attrition rates for the first five years reveals that 23% of teachers did not return to the classroom after two years, 28.4% left after three years, 36.8% left after four years and 41.3% were no longer teaching after five years (Perda, 2013). A combination of factors such as the high cumulative rate of attrition among newer teachers, the generally higher attrition rates over all segments of the teaching population during the past 20 years, along with the accompanying substantial growth of the teacher workforce has resulted in a “greener and less stable” teacher population (Headden, 2014; Ingersoll et al., 2014). In 1987 – 88, for example, the modal or most typical teacher had 15 years of experience, while in 2007-08, the most common teacher was in their first year of teaching (Ingersoll & Strong, 2011). Further, in 1987-88 there were approximately 84,00 first year teachers, while in 2007-08 there were more than 239,00 novices (Ingersoll et al., 2014). The recent increases in the number and proportion of younger and less experienced teachers in public schools have serious implications for the need to retain more new teachers in order develop a highly effective more experienced teacher force with a greater capacity to facilitate growth in student achievement since it typically takes at least three years to seven years for teachers to develop to the stage of expertise where they begin to master the arts and sciences of teaching (Berliner, 2001; Carroll & Foster, 2010; Henry, Fortner, & Bastian, 2012; Huang & Moon, 2009). The problems associated with high teacher turnover are exacerbated for urban schools as 45% of all public school teacher turnover occurred in about one quarter of the public schools, which are most accurately described as high poverty rural and urban schools (Ingersoll & May, 2012; Ingersoll & Strong, 2011).

The average urban teacher turnover rate of 22%, is 31% higher than the overall national average turnover rate for teachers and 42% higher than the turnover rate of teachers working in low poverty schools (Ingersoll, 2001; Ingersoll, 2004; Kirby, Berends, & Naftel, 1999). As a consequence of the higher teacher turnover rates in the schools that generally have the highest proportion of poor and minority students (Freeman, Scafidi, & Sjoquist, 2005; Loeb & Reininger, 2004), urban schools also possess a higher proportion of first-year teachers, the highest proportion of teachers possessing less than five years of experience, the highest numbers of non-certified and out of field teachers, and the lowest percentage of more experienced career professional teachers (Darling-Hammond, 2006; Prince, 2002). In a recent study providing some of the first empirical evidence of the direct detrimental effect of teacher turnover on student achievement, Ronfeldt, Loeb, and Wyckoff, (2013) reported that teacher turnover was particularly deleterious to the achievement of students in schools with large proportions of low-performing and minority students. According to organizational research and theory, a small degree of employee turnover can be beneficial to avoid stagnation, contribute to productivity, and to facilitate reform efforts within an institution or organization (Horn & Griffeth, 1995; Mobley, 1982). On the other hand, organizations such as schools that involve non-routine procedures in tasks such as teaching and learning, and require extensive interaction among participants to be effective, are especially vulnerable to high employee turnover rates (Burns & Stalker, 1961; Kanter, 1977; Likert, 1967; Walton, 1980). The faster spinning "revolving door" with urban teachers entering and exiting schools at a heightened pace has a detrimental impact on several factors associated with effective schools including: quality of teaching within the classroom, consistency of instruction, development of curriculum, degree of professional communication, opportunity for faculty collaboration, and overall capacity of the schools to evolve into a professional learning community (Guin, 2004; National Commission on Teaching for America's Future, 2003; Ronfeldt et al., 2013; Rosenholtz, 1989).

The heightened rates of teacher turnover can be deemed both a cause and an effect of performance problems at the school level (Ingersoll, 2004). Based on data from the SASS and TFS surveys, (Ingersoll, 2004; Ingersoll & May 2011) the most prevalent causes for teachers leaving urban schools were associated with the lack of administrative support, school working conditions, the lack of teacher autonomy and discretion regarding classroom decisions, the lack of collective faculty influence pertaining to school wide policies that affect their jobs. Poor salaries and student discipline problems, were less frequent reasons for leaving. In addition to the very high costs in human capital and productivity as described by Milanowski and Odden (2007), it is estimated that somewhere between \$7.34 billion (Barnes, Crowe, & Schaefer, 2007) and \$7.87 billion (Alliance for Excellent Education, 2005) were spent annually in the U. S. to recruit, hire, and orient teachers to replace those individuals who move to different schools, or leave the profession. It has been estimated that the populous states of Texas, California, and New York, possessing many of the largest urban school districts among them, have respectively spent \$505 million, \$456 million, and \$364 million to replace teachers who moved or left the profession (Alliance for Excellent Education, 2005). Translating this large financial burden down to the individual school level, the National Commission on Teaching and America's Future (2007) estimated that the average expense associated with replacing teachers leaving non-urban schools amounted to \$33,000 per school, while the average cost associated with replacing the proportionately greater number of teachers leaving urban schools was approximately \$70,000 per school.

Efforts to Reduce High Teacher Attrition and Turnover

Teaching internships or student teaching experiences for preservice teachers may vary widely, but despite the great variability among these experiences one premise remains true, the internship is one of the most significant training times in the teacher preparation program (Godfrey, 1995). Sometimes colleges of education have little jurisdiction over this vital time in preparing teachers. According to Hale (1994), preservice teaching interns or student teachers are quite impressionable because they are beginning a shift toward viewing themselves as a teacher of students rather than viewing themselves as an undergraduate student learning to teach, thus making the climate and culture of the school along with the mentor teacher the major influences during the final stages of the teacher preparation program. In addition, the cooperating school district (because of its curriculum and instructional policies and practices), and the mentor teacher (along with her/his personal idiosyncrasies and professional preferences), are largely responsible for the nature and degree of the intern's learning during the last phase of training for the preservice teacher (Acheson & Gall, 1997). Because of their significant impact on teaching interns' or student teachers' development, it is imperative that teacher preparation programs carefully plan and implement meaningful internship or student teaching experiences.

In a large scale comparative study, Andrew (1990), for example, found that teachers completing a five-year teacher preparation program that included a year-long internship were more satisfied with their preparation program and teaching as compared to individuals completing a four-year program with the same or a very similar course of study that included a traditional student teaching experience instead of the year-long internship. In addition to the value of teacher preparation programs providing thoughtfully developed and carefully situated internships leading up to the first year of teaching, new teacher mentoring and induction programs appear to have the potential to positively influence new teachers' effectiveness and retention rates. During the past 20 years there appears to have been a proliferation of new teacher induction programs. In 1990 about 40% of teachers received some form of induction, ten years later 80% received induction support, and today, nearly all new teachers are involved in some type of mentoring or induction program (Ingersoll & Smith, 2004; Whisnant, Elliott, & Pynchon, 2005). While there appears to be a growing professional literature base in support of induction and mentoring, it is difficult to make conclusive or unequivocal statements in support of all programs because of the vast range in the conceptualization, implementation and composition of the programs, as well as the lack of robust empirical evidence accompanying many reports of effective induction programs (Feiman-Nemser, 1996; Ingersoll & Kralik, 2004; Ingersoll & Smith, 2004; Whisnant et al., 2005). A comprehensive review of the literature related to induction and mentoring programs was conducted on behalf of The Education Commission of the States (ECS) (Ingersoll & Kralik, 2004) and initially identified 150 empirical studies. However, only 10 programs met the three criteria: a) quantitative data, b) evaluation and verifiable outcomes for the mentored teachers, and c) comparisons of mentored and unmentored novices requisite for inclusion in the final report. One of the programs, the Texas Beginning Teacher Support System (TxBESS), was a statewide induction and mentoring program involving nearly 15% of the new teachers in the state that was funded by the State Board for Educator Certification and the U.S. Department of Education. The retention rates (defined as returning to teach within the state of Texas) for TxBESS teachers were much higher than the retention rates of teachers who did not participate in the program (Fuller, 2003). Thus, this same definition of retention used by ECS was used in this study and the TxTBess program having been judged noteworthy by ECS is being used as a comparison group.

Upon surveying the literature, it becomes very evident that all induction programs are not equally created. It has also become increasingly clear that the most effective programs are comprehensive in scope and comprised of several elements/components of new teacher professional induction support (Ingersoll & Smith, 2004). Among the components included in many programs are: mentoring by trained mentors, orientations, regularly scheduled meetings with mentors, continuing opportunities for professional development, common planning times, structured support, scheduled collaboration with experienced teachers, ongoing observations with constructive feedback, membership in an external network of peers, and connections to district and school-based administrators (Alliance for Excellent Education, 2005; 2008; Ingersoll & Smith, 2004; Stansbury & Zimmerman, 2000; Whisnant et al., 2005). Nearly all teachers report that they have participated in some type of induction activities (listed above), but nearly 50% of them received little more than an initial orientation to the school and the district, (Alliance for Excellent Education, 2005; Johnson, Berg, & Donaldson, 2005), while 22% of new teachers were provided with three elements of support, 13% experienced six induction components, and < 1% experienced a fully developed induction program containing more than six elements of professional induction support (Ingersoll & Smith, 2004). Consequently, as the number of induction procedures went up, the percentage of teachers receiving the increased support went down. However, as the number of induction support elements increased, the rate of new teacher turnover decreased. For example, the probability for first-year teacher turnover was 40% when they received little or no induction support but, the probability of turnover decreased to 28% when teachers received three elements of induction support, and the turnover rate was reduced to 18% when a full or comprehensive induction program was provided to new teachers (Ingersoll & Smith, 2004). The most disconcerting point associated with this last finding is that less than one percent of new teachers enjoy the apparent luxury of experiencing a comprehensive induction program (Alliance for Excellent Education, 2005; Ingersoll & Smith, 2004; Johnson et al., 2005).

Based on our direct interactions with public school administrators and realizing that most school budgets at this time are being cut or at least carefully monitored, it might seem plausible for administrators to contend that they just cannot afford to implement a comprehensive induction program. However, there is some compelling evidence available regarding the long-term costs and benefits of a comprehensive induction program. A benefit-cost analysis conducted by Villar and Strong (2007) and reported by The New Teacher Center, revealed that the effectiveness of first-year teachers participating in comprehensive induction programs was comparable in many ways to that of third- and fourth-year teachers who did not participate in induction procedures.

Further, based on the Villar and Strong (2007) report, The New Teacher Center estimated the rate of return for every one dollar invested in an induction program was \$1.66. With this recent finding, along with the estimated \$7.34 - \$7.87 billion spent annually in the U.S. to recruit and replace teachers, a comprehensive induction program should be viewed as a sound investment in teacher retention and educational quality instead of an unaffordable expense. Based on the information we have presented, it is more readily apparent that the high rates of new teacher and urban teacher attrition and turnover might be matters of greater concern than teacher retirement when dealing with issues of teacher shortages for at least a few reasons. First, little can be done to change the age demographics of the teaching force or to stop or reduce their aging process or imminent retirements. Second, teacher attrition and teacher movement have contributed proportionately more to possible teacher shortages and urban teacher turnover than teacher retirements. Third, if educators conduct additional inquiries into designing and implementing effective systematic procedures such as comprehensive induction programs, and lengthier more intensive internships with extensive support procedures, the urban new teacher attrition rate might be reduced. Bearing these propositions in mind, this research chronicles the organizational elements of a full time, yearlong teaching internship program that incorporated intensive mentoring, intern cohort groups, and an externally-based electronic learning community to enhance any existing teacher induction procedures that may have existed in the public schools where the internships were completed. Also reported are comparisons of the teaching retention, turnover, and attrition rates among the participating interns and extant national, state, and local databases.

Description of the Internship Program

The internship program in the present study has been in existence for four years. It began in one school district as a small-scale pilot project containing six interns and one mentor. Based on our findings from the first year, we expanded the program in subsequent years to include between 44 -50 interns plus eight full-time mentors in six school districts located within two large and one smaller urban area. Six out of the original eight mentors were retained throughout the three years of the study. In our efforts to provide further insights into the nature of the internship program, various responsibilities of the interns, participating districts, mentors, and the university are described below.

Program Description and Rationale

This innovative program is focused on implementing full-time, paid teaching internship experiences that receive intensive and extensive mentoring support and induction support (Stansbury & Zimmerman, 2002) provided by trained, full-time mentors. All participating interns function as a classroom teacher of record for the entire school year, and depending upon their school - teaching assignments, are accountable for normal teaching responsibilities related to elementary, middle, or secondary school classrooms. Additionally, they are responsible for completing other tasks such as participating in: school-wide professional development activities; grade level or content area meetings and professional learning communities; any additional orientation and induction procedures or activities that districts offer for all new teachers. The interns were evaluated by district administrators using the same state approved protocols and procedures implemented to evaluate all other teachers. Interns are placed on a regular district pay scale including all fringe benefits for a first- year teacher, less \$8,000, which is subtracted from their salary allowing participating school districts to reassign a teacher to serve as a university, trained mentor to fulfill full-time mentoring responsibilities in support of interns. Consequently the internship program directly generates a mentor staffing process for the school district that successfully allows teachers to continue on their professional salary schedules in their same districts. As mentors, they provide essential, intensive, and personal support to each group of five to six interns at little or no added costs to each of the districts. According to the hiring requirements in particular districts, the interns are interviewed and hired as teachers in schools where teaching openings existed. Besides providing beginning support and formalized induction into teaching, the internship program also indirectly addresses the teacher shortage and retention problems in urban partner school districts. Through this program in urban school districts, the interns acquire teaching skills in schools where they probably would not have begun their teaching careers. Traditionally, our teacher preparation programs have been organized so that students could complete the program in four years and graduate in May. However, it has been observed that many students seem to require 4 ½ years to complete the program, as December (fall) graduates seem to equal or slightly outnumber program graduates each May.

Thus, approximately half of our graduates did not actually become classroom teachers until five years after they began the program, because many fall graduates are not able to acquire jobs as teachers until the beginning of the following school year (August). Additionally, the opportunity to gain teaching experiences with diverse learners in urban school settings in a highly supportive situation, allowed the interns to obtain approximately 80% of a professional salary an entire year earlier than their traditionally, non-paid student teaching counterparts. The university specifically designed the internship program so neither the districts nor interns were contractually obligated beyond the one-year internship duration. The school was not obligated to retain or re-hire interns; the interns are not obligated to return to the school following the completion of the internship year. However if a participating school district decided to re-hire interns as second-year teachers, the interns would receive the regular salary of a second year teacher, along with other benefits consistent with all other second-year teachers. By not requiring additional commitments of either the district or the intern beyond the internship year, we surmised that if the internship program was effective and interns performed proficiently, the school districts would seek to retain them as second-year teachers. Further, we hypothesized that interns who experienced success as a teacher, accompanied by intensive mentoring support and along with additional induction procedures would subsequently choose to return to the school district as a continuing teacher.

Few studies have examined the retention of teacher specific urban-focused programs. One, conducted by Quartz and the TEP Research Group (2003), found that teachers in an urban education social justice program with support remained longer than teachers in other typical urban districts nationwide. These authors encourage other researchers to try and curb the "revolving door" of urban schools by extending their established groundwork. Thus this study concerning our innovative internship program set out to answer the following questions: Do interns receiving intensive mentoring and comprehensive induction during their first year of teaching in urban, high-needs districts with diverse learners remain in those same districts to teach during subsequent years? How do the retention rates of interns in this program compare with the teaching retention rates of graduates from the same teacher preparation program who complete a traditional student teaching experience? How do the retention rates of interns compare to state and national new teacher retention rates? How does the overall turnover rate of interns compare to the overall turnover rates of the schools in which they were hired?

Methodology

Selection and description of interns. To be considered as an intern candidate in our program, students must meet the following pre-requisites: a) at least a 3.0 grade point average; b) complete their professional methods semester including coursework assignments, and intensive field-based clinical experiences during the spring semester preceding the internship; c) receive positive recommendations from their methods semester faculty team; d) complete their degree programs, excluding student teaching, by the end of the first summer term preceding the internship; e) successfully complete all requisite state teacher certification tests prior to beginning their internship assignment; f) apply for a probationary teaching certificate; and g) complete 3 graduate credit hours of university internship coursework during each semester of the internship year. The candidates then participate in an interview with school district administrators and program mentors from the district for one of the projected internship positions. Because the school districts are large, they can commit to hiring the designated number of intern candidates in the spring based on annual district turnover rates. The exact school and grade or specific courses within the content area is not determined until resignations or retirements are received by the district. In reality, the districts hire many replacement teachers beyond the internship program, therefore interns' preferences for grade level (elementary/early childhood levels) or content specialty areas (middle/secondary levels) are frequently honored. The interns ($N = 141$) involved in this study were predominantly female (~93%), mostly Caucasian (~86%), approximately twenty-two years of age, and from middle class non-urban backgrounds. This sample of interns directly reflects the population of students enrolled in teacher education programs at our institution.

Analyses. In order to determine the retention rate for interns in high-needs urban area schools after their internship year, data for the department were obtained from the data base compiled under the auspices of the college dean's office which tracks the teaching placements of all recent teacher education graduates. The college data were reconciled with data collected and updated annually by the program mentors who worked directly with each of the interns in the six intern program partnership school districts. Data gathered from the mentors corroborated the college database in more than 95% of the cases. In the few instances of disparity between the data sources, the individual intern or a school district was contacted to verify their teaching status. Longitudinal data were reported for each group of interns.

For the intern groups, the internship experience was counted as the first year of teaching because they were indeed, the teachers of record in their classrooms. For the first cohort group of interns in our study, a total of four years of data were available. For the second cohort group of interns in this study there were three years of data available, and for the third cohort year there were only two years of data available for reporting. Initially, the intern data were coded into the following categories: remaining in the same school (SS), remaining in the same district but transferring to a different school (SD), transferring to different district within the state (DD), and finally for those for whom there was no data (ND). In order to determine whether the internship program was successful in placing and retaining teachers in urban, high-needs schools, as well as more generally retaining teachers in public schools, we compared the retention rates for interns to all other individuals who graduated at the same time from the same teacher preparation programs in our department, with the exception of completing a student teaching experience instead of the internship. This student teaching experience is one in which student teachers are placed in a classroom with a mentor teacher for 12 weeks. This experience includes a gradual building of teaching responsibility from observing, assisting, co-teaching, to full instructional responsibility. There are two periods of full responsibility (10 days each) during the 12 weeks of student teaching. A university supervisor observes the student teacher implementing at least four lessons. The mentor teacher is expected to share weekly reports of progress with the student teacher. Next, we compared the turnover rates for interns to the turnover rates of the schools in which the interns practiced. Finally we compared intern retention rates for teaching to a previously recognized induction program, (TxBESS), the state, and nation beginning teachers. Confidence intervals were used to graphically show differences in retention rates among groups for two, three, and four years.

Results

Comparing Intern, State, and National Retention Rates. For the first cohort group of 46 interns, 38 (83%) remained in their original schools for their second year of teaching. For the third year of teaching, 28 (61%) remained in their original schools and for the fourth year, 25 (54%) returned to the same school. Of the group of 46 interns, 19 left the schools in which they interned but were still teaching within the state, while only two of the interns were not teaching in public schools within the state. Overall 44 of the 46 interns in this first cohort group (96%) still taught within the same state for their fourth consecutive year of teaching. The four-year teaching retention rate for this first group of interns (96%), compared favorably to the state four-year teaching retention rate of 71% (Herbert, 2004) and the national four-year teaching retention rate of 60% (Ingersoll, 2003). The second cohort group included 45 interns. Of this group, 33 (73%) returned to the same school for their second year of teaching. Four additional interns remained in the same district but changed schools for their second year of teaching. An important consideration with same school retention rate was that two of the four interns had intended to return to their school, but were moved to different schools because of grade level reorganizations at their original schools. The purpose of grade level reorganization was to meet shifting student populations within districts. If these two interns were counted as returned to their same school as they had intended, 35 individuals (78%) would be counted as retained in their initial placement. Retention of interns within their respective districts (37 out of 45) was 82% for the second year. For the third year of teaching, 28 out of 45 interns (62%) remained in their original schools, while 30 (67%) of them remained in the same district for this amount of time. After three years, the 13 interns who left the districts in which they started were still teaching within the state. Therefore, 43 out of 45 (96%) of these second group of interns were still teaching in the same state after three years. The three-year teaching retention rate for this second group of interns also compared favorably to the TxBESS program's three-year teaching retention rate of 83% (Fuller, 2003), the state three-year teaching retention rate of 76% (Herbert, 2004) and the national three-year teaching retention rate of 67% (Ingersoll, 2003). The third cohort year of interns consisted of 50 individuals. Of this last group to be reported in our study, 28 (56%) returned to the same school for their second year of teaching and two more remained in the same district but not in the same school resulting in a 60% district retention rate. In addition, 16 individuals who left the district in which they interned were teaching elsewhere in the state, and no information was available for four individuals. After two years, the teaching retention rate of 92% for this last group of interns compared favorably to the TxBESS' two-year retention rate of 89%, the state two-year teaching retention rate of 81% (Herbert, 2004) and the national two-year teaching retention rate of 76% (Ingersoll, 2003). See Table 1 for a summary of the longitudinal turnover and retention rates for the three cohort groups of interns.

Table 1: Longitudinal Turnover and Retention for Three Groups of Interns

Cohort Groups	n	SS ₂	SS ₃	SS ₄	SD	DD	No data
1st	46	38	28	25	0	19	2
2nd	45	35	28	NA	2	13	2
3rd	50	28	NA	NA	2	16	4
Total	141	101	56	25	4	48	8

Note. SS = same school; SD = same district; DD = different district; NA= not available

Comparing Intern and Departmental Program Retention Rates. The college database of traditionally prepared departmental peers who completed the same teacher education courses with student teaching instead of the internship was used as a comparison group. For this comparison the annual and longitudinal retention rates were defined as teaching in any public school within the state of Texas. As shown in Table 2, the four-year, three-year, and two-year teaching retention rate was better for each of the three internship cohort groups respectively, than their departmental comparison groups: 96% versus 62%, 96% versus 71%, and 92% versus 80%, respectively. Table 2 summarizes the yearly comparisons between each cohort group and their respective program comparison group.

Table 2: Comparison of Retention in Teaching Rates between the Interns and Student Teachers

Cohort Groups	STs Year 1	Interns Year 1	STs Year 2	Interns Year 2	STs Year 3	Interns Year 3	STs Year 4	Interns Year 4
1st	86	100	79	98	73	96	62	96
2nd	84	100	78	97	71	96		
3rd	85	100	80	92				

Note. The retention rate only considers continuing in teaching within the state and not within the same school or district. The department student teacher retention rate includes all other graduates of the program, but does not include the interns. STs= Student Teachers.

The overall effect of the internship program on retention, as a percentage difference, was consistently large. We believe that these effects may actually be somewhat modest or “understated” because the interns were predominantly placed in high-need, urban schools where as those in the traditional program were free to seek positions wherever they chose to work once they were finished with their student teaching. That is, those in the comparison group were freer to select positions in higher-status districts, closer to family, or to relocate with spouses while the interns remained in high-need districts. Typically, most graduates of the traditional program have returned to teach in or near their home districts, and when we consider the demographics of that sample, fewer than 5% came from urban areas and less than 4% were members of underrepresented groups. As an empirical validation and extension of the descriptive percentage differences in retention rates reported above, 95% confidence intervals were computed to provide a statistical analysis for comparing the retention rates among the intern cohorts, student teacher program peers, TxBESS program, state, and national comparison groups. To interpret both the variability of the point estimates and the statistical significance between samples, confidence intervals provide the pictorial representation. When overlap of the tails is less than 50%, the two samples are statistically significantly different at the $p < .05$ level, when the tails do not overlap, the samples are statistically significantly different at the $p < .01$ level (Cumming & Finch, 2005). In addition, to statistical significance it also shows variance. Therefore, using confidence intervals is preferable to other analytic choices (Capraro, 2005). Typically, as the sample size increases variance decreases due to a reduction in sampling error. Therefore, large samples (national) typically have smaller tails than smaller samples (cohorts).

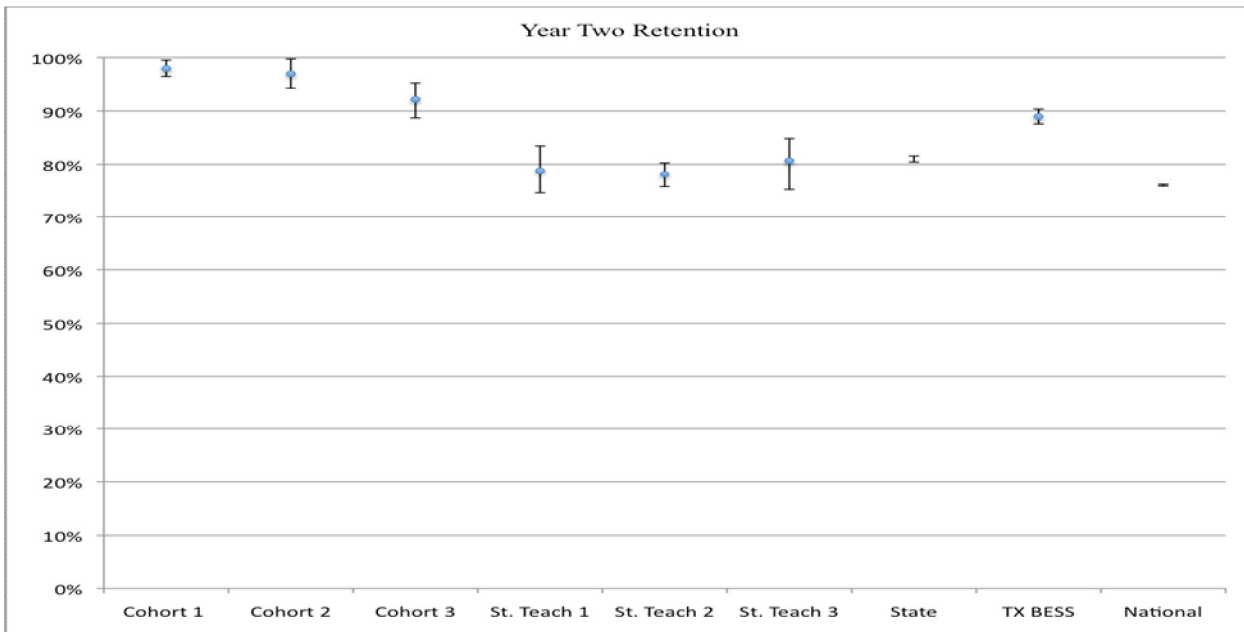


Figure 1: 95% Confidence Intervals of all Comparison Groups for Two-Year Retention

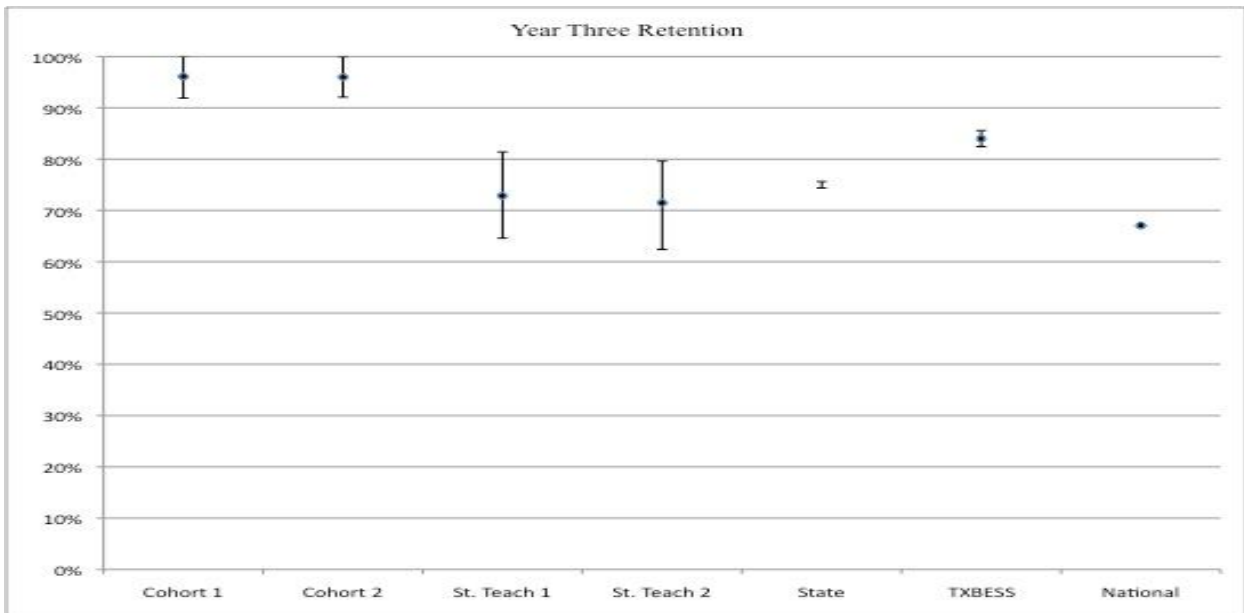


Figure 2: 95% Confidence Intervals of all Comparison Groups for Three-Year Retention

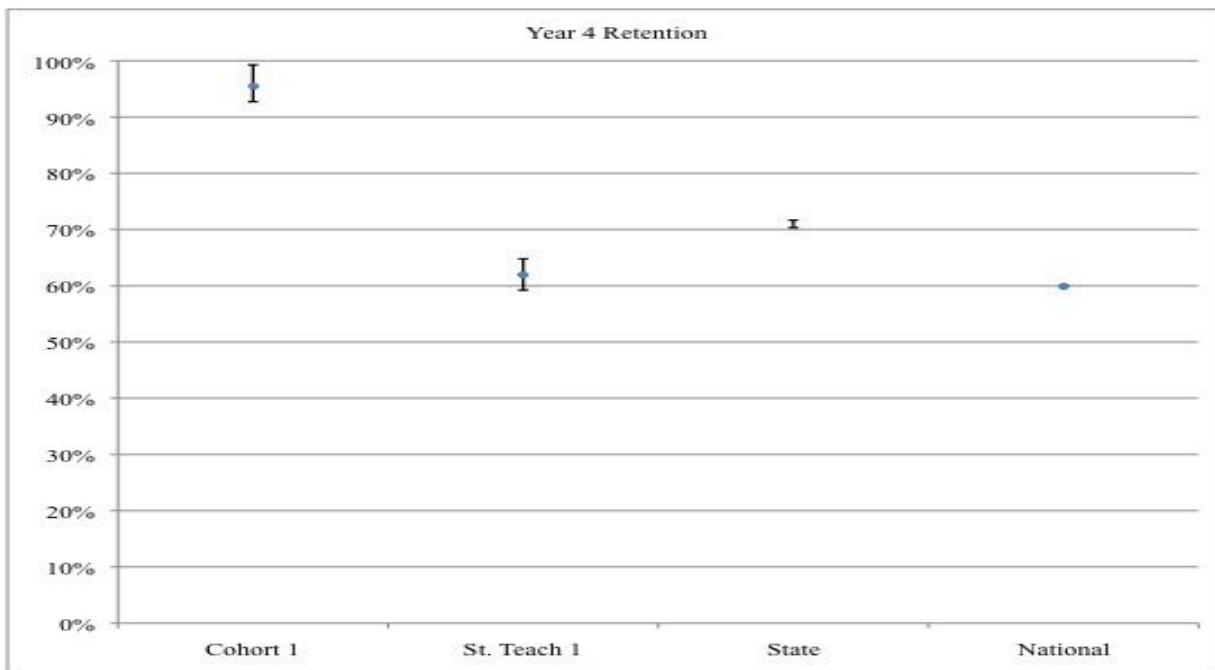


Figure 3: 95% Confidence Intervals of all Comparison Groups for Four-Year Retention

In Figure 1, the two-year teaching retention rates for intern cohorts 1, 2, and 3, were statistically significantly higher than the two-year teaching retention rates for all three of the student teacher groups, the state, TxBESS induction program, and the national comparison groups. Because of the large samples in the TxBESS, state, and national groups the variance was small. However, the variance among all three cohort groups and student teaching groups were similar. There were no statistically significant differences in two-year retention rates **within** the intern cohorts or student teaching groups respectively. The TxBESS program had statistically significant higher retention rates than any of the student teacher groups, and the national groups. The significant differences observed between the TxBESS program and the state group corroborated the earlier results reported by Fuller (2003). In Figure 2, the three-year retention rates for intern cohorts 1 and 2 were both statistically significantly greater than the three year teaching retention rates for both of the student teacher groups, the state, TxBESS, and the national comparison groups. The TxBESS program had a statistically significantly higher retention rate than any of the student teacher groups and the national groups. Once again, the statistically significant differences between the confidence intervals reflecting the TxBESS program and the state, corroborated the earlier results reported by Fuller (2003). There were no statistically significant differences in three-year retention rates across student teaching groups, state, and national groups. In addition, there were no statistically significant differences in three-year retention rates **within** the intern cohorts or student teaching groups respectively. In Figure 3, the four-year teaching retention rate for intern cohort 1 was statistically significantly higher than the four-year teaching retention rates for the student teacher group, the state, and the national comparison groups. There were no four-year retention rate data available for participants in the TxBESS program. Participants in the state reflected a statistically significantly higher retention rate than both the student teacher group and national group. There were no statistically significant differences in four-year retention rates between the student teacher and national groups.

Comparing Intern, School, and National Turnover Rates. Previously, we presented background information that included the 29% national average turnover rate for first-year teachers (Ingersoll, 2004) and the 22% average turnover rate for urban teachers across the nation (Ingersoll, 2001; 2004). While national statistics are useful for making general comparisons of the interns' turnover rates, we also believe that comparing intern turnover rates to the teacher turnover rates for the schools where the interns worked would be even more informative. In our efforts to make the intern – school turnover comparisons, we calculated the composite weighted mean school turnover rates for each intern cohort year (See Table 3). We based our calculations on the most recent State Board for Educator Certification (2004) database reporting teacher turnover by school.

Data for the schools within each of the six school districts cooperating in the internship program were calculated in the following manner using District 1 (D1) as an example: in year 1, D1 had 6 interns, 3 were in a school with a turnover rate of 47%, 1 with an 18% turnover rate, 1 with a 19% turnover rate, and 1 in a school with a 20% turnover rate. Thus $47 + 47 + 47 + 18 + 19 + 20 = 198/6 = 33\%$ district turnover rate for that year. The composite weighted average for each of the years was the weighted sums of cell values divided by total number of interns for the year (last column). The district average for 3 years (bottom row) was the sum of weighted cell values divided by total interns in the district over the 3 different cohort years. The composite weighted averages of the schools in which interns taught during each of the three years of the internship program was 30%, 26% and 30% which indicated that collectively these schools had a larger than average teacher turnover rate when compared to the 22% national average urban teacher turnover rate.

Table 3: Weighted Percent Turnover Rates for Schools in Which Interns Taught by Year

Year	D1	D2	D3	D4	D5	D6	Composite*
1st	33%	31%	34%	30%	19%	NA	30%
2nd	30%	28%	31%	24%	16%	29%	26%
3rd	30%	29%	35%	28%	27%	18%	30%
**D Average	31%	29%	34%	27%	20%	24%	

Note. * = yearly average turnover rates across districts; ** = district average turnover rate for 3 years.

Referring back to Table 1, the 83% returning rate (or 17% turnover rate) for the first cohort group of interns for the second year of teaching, compared favorably to the 30% composite school turnover rates for that same year. For the third year of teaching, there was a 22% turnover rate among the interns, but this was still less than the 30% annual turnover rate for these schools, and for the fourth year of teaching, there were 7% fewer interns returning to their original schools which compared very favorably to the 30% annual composite school turnover rate for these schools. After three years, the cumulative turnover rate for interns was 46% compared to a projected 90% cumulative turnover rate for teachers in these schools during the same three years. With reference to the second cohort group of interns, the 22% turnover rate for the second year of teaching among the interns was less than the 26% composite school turnover rate for teachers in the corresponding year. There was an additional 16% turnover rate for the interns for the third year of teaching, which compared quite favorably to the 26% teacher turnover rates overall. Thus, the cumulative turnover rate for this second group of interns was 38% after two years while the cumulative turnover rate for teachers in these same schools was 52% during the same two years. There was only one year of turnover data available for the third and last cohort group of interns included in our study. This group of interns had a 44% turnover rate which exceeded the corresponding 30% composite turnover rate of teachers in these schools. This finding was inconsistent with the favorable intern- school - teacher turnover rate comparisons that were reported for the two previous intern cohort groups.

Discussion

In comparing teacher preparation models, a common critique is the lack of description of the population, short study duration, and under-described models (Zeichner, 2005; Zientek, Capraro, & Capraro, 2008). This report provides a thick description of one internship program with findings contextualized by a comparison group of preservice teachers. The preservice teachers completed the same teacher preparation courses but their program culminated with student teaching rather than participating in a year-long internship program. We also provided four years of longitudinal retention and turnover data for the initial group of interns with one year less data available for each of the two subsequent groups of interns included in this report. The internship program appears to be highly effective for enhancing teacher retention. This conclusion is supported by longitudinal teaching retention rates for all three groups of interns that compared favorably with national, state, TxBESS Program and student teacher comparison group retention rates. For example, the four-year retention rate of 96% for the first group of interns was noticeably higher than nationally (cf. Ingersoll, 2003; National Commission for Teaching and America’s Future, 2003), statewide (cf. Herbert, 2004), or for the local comparison group. The three-year teaching retention rate of 96% for the second group of interns also compared favorably with the three-year retention rates for the national, state, and local comparison group.

The 92% two-year retention rate for the last group of interns was higher than the second-year retention rates for the state (81%) (Herbert, 2004), local comparison group (80%), and nation (76%) (Ingersoll, 2003). It appears that the intensive mentoring provided by trained, full-time mentors, along with other induction procedures incorporated into the internship program may be contributing to the findings of high retention rates among the interns, which is consistent with earlier reports on the effects of new teacher induction programs on teacher retention (Alliance for Excellent Education, 2008; Charles A. Dana Center, 2002; Darling-Hammond, 1999; Ingersoll & Smith, 2004; Stansbury & Zimmerman, 2000; Whisnant et al., 2005). In part, those who participated in the internship program and those who did not were not from high-need communities and did not attend high-need schools. However, those in the internship program accepted initial assignments in high-need schools and remained in those high-need schools longer. This was in contrast to the majority of the preservice teachers who participated in the traditional student teaching program, who returned to their home community and taught in schools similar to those they attended.

Many attribute the retention to the fact that one receives a one-year contract while the student teacher receives a single semester appointment. It is true that with an internship one is nearly guaranteed to complete the year but he or she is not guaranteed an offer for a second year. In fact, one can argue that interns are in greater jeopardy of non-renewal because they are assuming full responsibility without the in-class supervision and guidance of an experienced teacher. Without a second person in the classroom during critical decision periods interns can suffer from poor decision making algorithms related to school and district norms, community expectations, and historical perspectives. Therefore, interns have the potential to have more frequent and greater problems that might result in the administration rethinking renewal. It is also a reality that school districts have openings every year so student teachers that perform well have the opportunity to remain employed with the district and schools in which they are placed. Additional support for the program's impact on teacher retention rates becomes evident when the retention rates of the internship program participants are compared to the reported results of the Texas Beginning Educator Support System (TxBESS), a new teacher induction program that has been successful in retaining new teachers. Teachers participating in TxBESS, a state funded new teacher induction program implemented in selected school districts across the state, reported a higher retention rate for both the second and third years of teaching for TxBESS participants over teachers who did not participate in TxBESS (Charles A. Dana Center, 2002; Fuller, 2003). However, the 96% three and four-year retention rates for the first two groups of interns in this study compares favorably to the 83% three-year retention rates for TxBESS participants and the 75% for non-TxBESS teachers in the state (cf. Charles A. Dana Center). The third group of interns' two-year retention (92%) compared favorably to the two-year retention rates for TxBESS (89%) and non-TxBESS (81%) (cf. Charles A. Dana Center).

It appears that the mentoring and support associated with the internship program also had a favorable impact on the first two groups of interns, (18% and 22% respectively) when compared to the 29% national turnover rates for first-year teachers (Ingersoll, 2004), the 22% average turnover rates of urban school teachers (Ingersoll, 2001; 2004), and the annual teacher turnover rates for the schools in which the interns began their careers as teachers (30% and 26% respectively). These findings corroborate the earlier reports of the positive impact that **comprehensive** induction programs have on new teachers' retention and their decisions to remain in their schools (Alliance for Excellent Education, 2008; Ingersoll & Smith, 2003). These points to the direct relationship between comprehensive induction programs including intensive mentoring and acceleration of new teachers' acquisition of professional competence (Darling-Hammond, 1999; Villar & Strong, 2007). This relationship is directly related to greater student learning (Serpell & Bozeman, 2000) and realization that teachers place great weight on their perceived degree of success with their students when making their decisions whether to stay at their schools and in the profession (Alliance for Excellent Education, 2008; Darling-Hammond, 1999; Johnson & Birkeland, 2003). In an earlier study (Helfeldt, Capraro, Capraro, Foster, & Carter, 2009) the first group of interns were judged to be successful teachers by their school administrators. In addition, the interns reflected significant growth in their perceived readiness, confidence, and self efficacy as teachers, which can help to explain why they remained in teaching and returned to their schools at a higher rate. Further studies of the instructional effectiveness and the interns' perceived levels of confidence, and self efficacy are certainly warranted to more broadly support the effectiveness of the internship program as a replicable model for preparing and retaining teachers for high-need, urban area schools. Further inquiries are also needed in an effort to determine why 92% of the third group of interns remained in teaching for their second year while a surprisingly large proportion (44%) of this group decided to move to another school to teach. At this point we are left to conjecture about possible contributing factors to explain this phenomenon. Perhaps this lower retention rate is an idiosyncratic finding that will not be observed in the turnover rates of subsequent groups of interns.

Might it be related to changes that were noted to the teacher preparation program coursework and field experiences (Capraro, Capraro, & Helfeldt, 2010)? Can it be explained by changes in mentors or unrealized shifts in other support provided by the internship program? These questions remain for future research, however, we are certain of two important things, first, long-term relationships between K-12 school districts and universities is important, and it is important to build year-long support structures for interns.

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