

## **EARLY CAREER TEACHER RETENTION IN IOWA**

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**Abstract**—Making sure that elementary and secondary schools are staffed with qualified teachers has received increased national attention during the last decade. Teacher retention has become a concern in Iowa, in the United States, and in other nations. The study found that school teachers are less likely to continue teaching for five years than are elementary-level teachers. Also, teachers who began their teaching careers in city schools were less likely to continue when compared to their peers who began their teaching careers in the suburbs, towns, or rural schools.

**Background**—Making sure that elementary and secondary schools are staffed with qualified teachers has received increased national attention during the last decade. Teacher retention has become a concern in Iowa, in the United States, and in other nations. A relatively large occupation, teaching represents more than two percent of the entire Iowa workforce (Iowa Workforce Development Occupational Projections, 2004-2014).

Ingersoll (2001) found that the problem of teacher retention is primarily not one of shortages, but rather one of teachers departing teaching for reasons other than retirement. He noted that the distinction between shortages and turnover as the key source of staffing problems has crucial implications for policy prescription. Furthermore, Ingersoll stated that it is a distinction that is often overlooked in research and policy responding to the threat of teacher shortages. While Ingersoll suggested that after just five years, between 40 and 50 percent of all beginning teachers in the United States have left teaching altogether, in Iowa the figure appears to be lower, around 30 percent (Appendix A).

Harris and Adams (2007) compared the average rate of teacher turnover to that of similar professions, including nursing, social work, and accounting, and found little difference. They found that turnover among teachers is slightly higher than that of nurses but lower than that of accountants and social workers, even after controlling for various measurable differences among workers. They also found that turnover patterns vary significantly by age group, with more teachers leaving teaching early in their career or taking early retirement. Those in mid-career had the greatest retention rate.

**Method**—This study explores teacher and school factors related to teacher retention in Iowa during the first five years after first employment in an Iowa public school as a teacher. Both teacher and district-level information from the Iowa Basic Educational Data Survey (BEDS) from 1996-1997 through 2006-2007 was used. Overall teacher retention data can be found in Appendix A. Teachers who were in their first year in the period

from 1996-1997 through 2001-2002 were included in this study (n = 9,271). The first step was to examine the correlations of possible factors with the number of years teachers were employed in Iowa schools during the five years following first employment as a teacher.

**Results**—Correlations of the number of years a teacher was employed in the first five years after first employment as a teacher and factors possibly related to teacher retention were very small. Significant relationships were found between the number of assignments, highest level of assignment, and enrollment of district.

**Table 1**—Correlations of Possible Factors Related to Teacher Retention and Years Taught During First Five Years after First School Employment for New Teachers 1996-1997 through 2001-2002

<b>FACTORS RELATED TO TEACHER RETENTION</b>	<b>CORRELATION</b>
Gender (male 0; female 1)	.01
<b>Salary first year</b>	<b>.02</b>
Special Education Assignment during First Year (no 0; yes 1)	.02
<b>Number of Course Assignments</b>	<b>-.06**</b>
Elementary+	.09**
<b>Middle+</b>	<b>-.01</b>
High+	-.09**
<b>Average District Salary for Professional Staff</b>	<b>-.02</b>
PK-12 District Enrollment	-.03**
<b>District Percent Eligible</b>	<b>-.01</b>

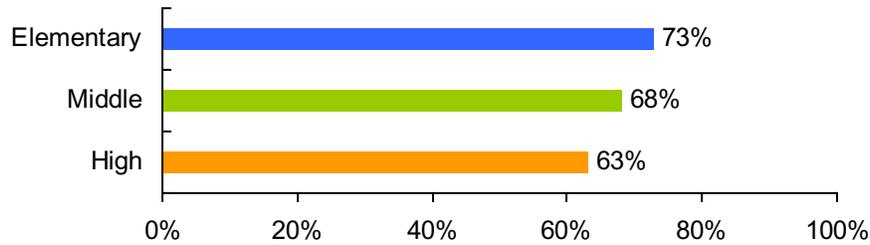
+Some teachers were assigned multiple levels  
 \*\*Correlation is significant at the 0.01 level.

Source: Iowa Department of Education, Bureau of Planning, Research, Development and Evaluation, Basic Educational Data Survey (BEDS) Staff Files.

In the literature, the factors most frequently cited as a source of dissatisfaction by teachers included workload, poor salaries and benefits, large class sizes, student discipline problems, and lack of teacher influence over decision-making. Two factors, teacher workload and average district salary, were examined using the BEDS data. Workload was estimated using the number of assignments found in BEDS. No difference was found, after controlling for grade level (elementary, middle, high), between those with one, two, three, or four or more assignments.

The level of students taught was a significant indicator of whether or not a teacher was more likely to leave teaching. Only teachers whose assignments were exclusively in one level were included in the chart below. Teachers assigned to elementary-level students only were more likely to remain in the school setting than those assigned to middle school students or high school students. The number of assignments and the level taught were highly correlated. High school teachers were more likely to have multiple assignments.

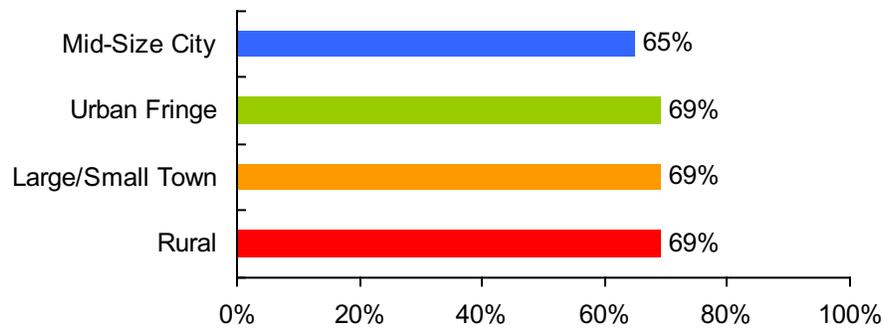
**Figure 1**—Percent of Teachers Remaining in School Employment Five Years by First-Year of Employment School Level



Source: Iowa Department of Education, Bureau of Planning, Research, Development and Evaluation, Basic Educational Data Survey (BEDS) Staff Files.  
Note: Observed differences are not necessarily statistically significant.

In a series of background advanced statistical analyses, Ingersoll found that school poverty, size, and urbanicity were among the factors most correlated with teacher turnover. The Common Core Data definitions were used to divide location into four levels: mid-size city, urban fringe, town, and rural. The results are shown below.

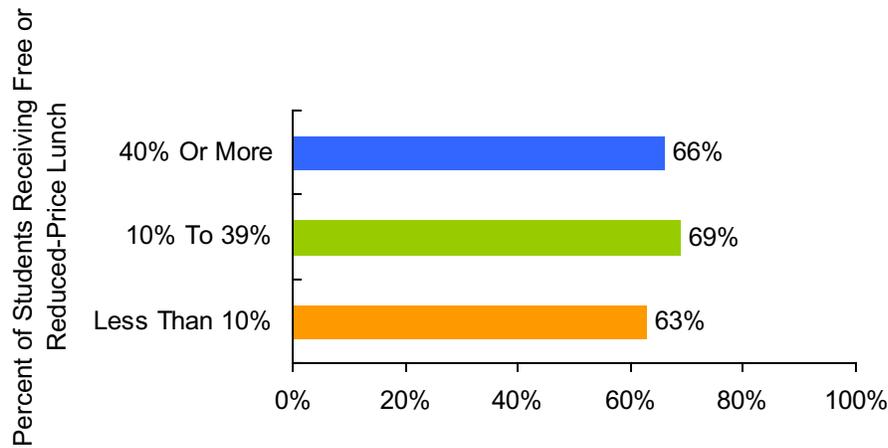
**Figure 2**—Percent of First-Year Teachers Remaining in Public School Employment Five Years by Type of Location First Employed



Source: Iowa Department of Education, Bureau of Planning, Research, Development and Evaluation, Basic Educational Data Survey (BEDS) Staff Files.  
Note: Observed differences are not necessarily statistically significant.

Beginning their career in a high-poverty school did not indicate a higher rate of turnover. Poverty was divided into three levels based on the percent of students in the district receiving free or reduced-price lunch: low, less than 10 percent; middle, 10 percent through 39 percent; and high, 40 percent or more.

**Figure 3**—Percent of First-Year Teachers Remaining in Public School Employment Five Years by Poverty Level of First District



Source: Iowa Department of Education, Bureau of Planning, Research, Development and Evaluation, Basic Educational Data Survey (BEDS) Staff Files.

Note: Observed differences are not necessarily statistically significant.

**Discussion**—While some of the school factors were related significantly to teacher retention during the first five years, the relative size of the effects was small. However, it does appear that high school teachers are less likely to continue than are elementary-level teachers. Also, teachers who began their teaching careers in city schools were less likely to continue when compared to their peers who began their teaching careers in the suburbs, towns, or rural schools.

Additional study examining particular groups of teachers, such as high school mathematics or science teachers, would be interesting and valuable. Although logistically difficult, a study of why teachers leave the profession, also would have value.

## REFERENCES

- Harris, D.N. & S. J. Adams, (2007). Understanding the level and causes of teacher turnover: A comparison with other professions. *Economics of Education Review*, 26(3), 2007: 325-337.
- Ingersoll, R. (2001). *Teacher turnover, teacher shortages, and the organization of schools*. Seattle, WA, Center for the Study of Teaching and Policy, University of Washington.