

An Examination of Longitudinal Attrition, Retention and Mobility Rates of Beginning Teachers in Washington State

**A Report Prepared for the
Harry Bridges Labor Research Center**

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Overview of the Study and its Significance

In recent years, questions of teacher retention and turnover have sparked considerable debate in policy circles. However, little research exists nationwide on the extent to which teachers move from one school or district to another or exit the profession, or the factors that may influence this (e.g., teacher experience, age, ethnicity, school and district characteristics, etc.). Teacher attrition and turnover has important policy implications, but is it as pervasive and widespread a problem as some commonly-held perceptions might suggest?

This study examines the attrition, retention, and mobility patterns of beginning teachers in Washington state over a five year period. Specifically, it calculates the rates at which elementary and secondary school teachers who begin their careers in Washington state remain in their teaching positions, move to other schools in their same school district, move to other school districts in the state, or exit the Washington education system over a period covering the years 2000-01 through 2004-05.

The study is of direct significance to policymakers in Washington state at both local and state levels. Education policy debates often center on ways to improve the quality of the teaching workforce, as an ever-growing body of research indicates that teacher quality is one of the strongest influences on student learning. (Plecki, 2000; Rice, 2003; Hanushek, 2005) In addition, spending on salaries and benefits for education personnel comprise over 75 percent of all yearly operating expenditures for education. Consequently, policymakers are often focused on how to best support the effective and efficient deployment of human resources in support of improving education. Policymakers at both state and local levels are considering a variety of strategies aimed at addressing the goal of providing every child with a quality teacher. These strategies include signing bonuses, raising compensation levels for novice teachers, strengthening mentoring and support programs for novice teachers, adopting alternatives to traditional teacher compensation systems, and altering practices that affect how beginning teachers are assigned to individual schools. Improving knowledge about the characteristics of the beginning teacher workforce and the specific patterns of retention, attrition, and mobility of beginning teachers can serve to help policymakers select options that are better suited to the particular circumstances in Washington state.

Limited research exists on the topic of attrition rates for novice teachers over the first five years of teaching. It is common to hear that “fifty percent of beginning teachers leave the profession in the first five years.” However, some studies have suggested that the problem is not one of attrition in the teacher labor force but one of mobility (Ingersoll, 2002). That is, teachers overall are more likely to move from one school to another than to leave the profession, and mobility rates of teachers who are in the early years of their career are more pronounced than those of their more experienced colleagues. The findings from some earlier exploratory work we have conducted provides evidence to support the notion that novice teachers in Washington have higher attrition and mobility

rates than their more senior colleagues. In a sample of 20 districts in the state,¹ we found that novice teachers change schools at a higher rate, often to another school within the district, with mobility likely to be more pronounced in larger districts (Plecki et al., 2005). This study provides new data and analysis about the specific workforce characteristics, attrition, retention, and mobility rates for a cohort of all beginning teachers in Washington state.

Research Question

The research question addressed in this study is: What percentage of beginning teachers in Washington state stay in the same school, move to another school or district, or leave the Washington education system for each year over the five year period 2000-01 through 2004-05? We respond to this question for beginning teachers and compare our findings to new work we have conducted about the overall teacher workforce in Washington.

Research Methods

As part of some prior work on the teacher workforce, we obtained a series of databases from Washington State's Office of the Superintendent of Public Instruction that contains information about all employees in K-12 education. The state's personnel database is used to determine funding levels for individual school districts. We have verified the accuracy of the information in the database and developed it into a program that allows the database to be searched and analyzed for the purpose of tracking labor force participation for all teachers in Washington state over the time period 1996-97 through 2004-05.

To investigate statewide retention patterns, records for all public school teachers in the state were examined at two points in time. Additionally, the beginning teacher cohort in 2000 (i.e., those teachers with less than one year of experience) was selected for an in-depth year-by-year analysis.

This work includes retention and mobility analyses at several levels (state, district and school) and uses individual teacher data in calculations. Consequently it is important to clearly define the criteria for the teachers included in these analyses.

- *Teachers* are defined as those public school teachers whose assignment is the instruction of pupils in a classroom situation and who have a designation as an elementary teacher, secondary teacher, or other classroom teacher. Other teachers serving in specialist roles (e.g., reading resource specialist, library media specialist) are not included in the analyses.

¹ The sample of twenty districts included the three largest districts in the state (Seattle, Tacoma, and Spokane) as well as large suburban districts in Western Washington (e.g., Bellevue, Edmonds, Lake Washington) and districts of various sizes in Eastern Washington (e.g., Richland, Walla Walla, Oroville, Ephrata, and Yakima).

In order to examine retention patterns, teachers were placed in one of five categories:

- “Stayers” – teachers who remain in the same school
- “Movers in” – teachers who remain in the same district, but change school or assignment within the same district
- “Movers out” – teachers who moved to other districts or to private schools in Washington state, either as a classroom teacher or in some other role
- “Re-enterers”- teachers who left the Washington education system at least once and returned to employment at a later time during the period studied (Note: this category is only used for the year-by-year analysis)
- “Exiters” – teachers who leave the Washington education system and can no longer be located in the state’s personnel database

Findings

The findings from this study are presented in two parts. The first component describes the overall characteristics of a cohort of beginning teachers in 2000 and teachers’ status after five years. It also provides some comparison data for all teachers in the workforce and for a subgroup of novice teachers during the same time period. The second part of our findings provide additional detail about the 2000 cohort of beginning teachers by presenting the mobility, retention, and attrition rates for these teachers for each year between 2000-01 and 2004-05.

Part I: Characteristics of the Washington Teacher Workforce in 2000

Comparing the Characteristics of Beginning, Novice, and all Teachers

Table 1 represents descriptive characteristics for all classroom teachers in Washington state in 2000 (n = 53,216) and retention and mobility after five years. Data is presented for beginning teachers (less than one year of experience), novice teachers (less than four years of experience) and all teachers.

Table 1: Characteristics of the Washington Teacher Workforce in 2000 and After 5 Years
 All Teachers, Novice Teachers and Beginning Teachers
 (Retention and Mobility Two-Point in Time Analysis: 2000-01 and 2004-05)

	All Teachers* (n = 53,216)		Novice Teachers 0 - 4 years experience (n = 12,468)		Beginning Teachers Less than 1 yr exp (n = 3,083)	
	Number	Percent	Number	Percent	Number	Percent
<i>Retention and Mobility (after 5 yrs)**</i>						
Stayers (in same school)	31,489	59.2%	6,340	50.9%	1,402	45.5%
Movers (in district)	7,226	13.6%	1,829	14.7%	455	14.8%
Movers (out of district)	3,900	7.3%	1,525	12.2%	410	13.3%
Exiters (not in WA ed system)	10,601	19.9%	2,774	22.2%	816	26.5%
<i>Age in 2000</i>						
21-30	8,652	16.3%	7,051	56.6%	1,977	64.1%
31-40	12,024	22.6%	2,954	23.7%	566	18.4%
41-50	17,180	32.3%	1,952	15.7%	426	13.8%
51-60	14,269	26.8%	494	4.0%	111	3.6%
61+	1,091	2.1%	17	0.1%	3	0.1%
<i>Ethnicity</i>						
Asian/Pacific Islander	1,206	2.3%	377	3.0%	97	3.1%
African American	830	1.6%	245	2.0%	62	2.0%
Hispanic	1,062	2.0%	374	3.0%	98	3.2%
Native American	431	0.8%	104	0.8%	22	0.7%
White	49,687	93.4%	11,368	91.2%	2,804	91.0%
<i>Experience</i>						
Less than one year					3,083	5.8%
0-4 years	12,468	23.4%	12,468	23.4%	NA	NA
5-14 years	18,728	35.2%	NA	NA	NA	NA
15-24 years	13,663	25.7%	NA	NA	NA	NA
25 yrs or more	8,357	15.7%	NA	NA	NA	NA

*Duty root 31, 32 or 33 with FTE designation greater than 0 in 2000.

**Headcount statistics rather than FTE are used for this analysis.

Several facts about the mobility of the state's entire teacher workforce become clear from examining Table 1. The actual "drain" on the teacher workforce is considerably less than is often believed. Only a fifth of all teachers leave the Washington education system in the five-year period. Generally speaking, districts are not losing many teachers to other districts. Only seven percent of all teachers moved to another district based on the two-point in time analysis. Among the teachers who moved from their original building, more either left the Washington system (20 percent) or moved to another assignment within their current district (14 percent) than left for employment in another school district in the state. These statistics are somewhat more pronounced for novice and beginning teachers and will be explored in greater depth later in the report.

Given current data limitations, it is not possible to track those who leave the Washington education system to their next occupational destination. However, one can reasonably assume that the likely reasons for leaving include employment in education outside of

Washington state, employment outside of education, retirement, and departure from the workforce (often temporarily, due to child-rearing or other personal reasons).

Attrition at the end of a teaching career is normal and inevitable. Attrition in the early years of teaching is more troublesome, as it may represent a premature loss of teaching talent. A number of studies support the finding that new teachers leave the profession at higher rates than experienced teachers (Murnane, Singer & Willett, 1988; Murnane, 1984; Lortie, 1975). Attrition and mobility is common in the initial states of most occupations as individuals learn about the workplace and discover whether or not the job is a good fit. However, induction into the teaching profession is particularly critical because teaching requires a significant acquisition of skills in the first few years and a high turnover of beginning teachers can impact the quality of instruction that students receive (Lankford, Loeb & Wycoff, 2002).

Analysis of the statewide data for Washington indicates that about one-quarter (26.5 percent) of beginning teachers (less than one year of experience) leave the state's education system after five years, either temporarily or permanently. The pattern for novice teachers (less than five years of experience) is similar, with 22 percent of novice teachers exiting the Washington system five years later. Nevertheless, the stability rates for both beginning and novice teachers are lower than what exists for the workforce overall. The percent of beginning teachers who stay in the same school after five years is lower than the statewide average rate for all teachers (46 percent compared to 59 percent). Both cohorts of beginning and novice teachers move to other districts at a higher rate (13 and 12 percent, respectively) than the average rate for all teachers (7 percent).

Also illustrated here is the enduring mismatch between teachers of color and the increasingly diverse student population. Statewide, approximately seven percent of Washington's teachers are non-White, while more than a quarter of the state's students are from racial and ethnic minorities (Plecki et al., 2003). Among the over 53,000 teachers in 2000, 93.4 percent were White, 1.6 percent African American, 2.3 percent Asian, 2.0 percent Hispanic, and 0.8 percent Native American. A slight increase (less than a 3 percent change) in the diversity of the teacher workforce can be seen with both novice and beginning teachers, with most of the change explained by the increased proportion of Hispanic and Asian teachers. This suggests that the new entrants into the labor force do not represent a significant departure from the overall pattern of a predominately White population of teachers.

Based on this and earlier work (Plecki, et al., 2003), the number of teachers eligible to retire will increase as the wave of baby boomers retire, but there is also a sizable experienced group of educators in subsequent years to take their place. As one might expect, the majority of teachers entering the profession in Washington are between the ages of 21 and 40 (82.5 percent). However, these findings also indicate that nearly a fifth (17.5 percent) of the beginning teachers who entered the profession in 2000 were over 40, potentially impacting the workforce dynamic if the trend continues.

Teachers' Age in Relation to Staying and Leaving

Closely related to years of teaching experience, teachers' age also impacts retention. By examining teachers within age-range categories it is possible to determine the distribution of the workforce by age and estimate the proportion of teachers who may be reaching retirement.

In order to fully understand the age dynamic, three aspects are important to keep in mind: 1) the distribution of the state workforce by age, 2) the percent of teachers who exit within each age range, and 3) the percent of the total exiters these teachers represent. For the statewide analyses we use unduplicated teacher headcounts and teachers' age in 2002, 2003 and 2004 (age at the end of each five year period). We represent teachers in five age ranges: 21-30, 31-40, 41-50, 51-55 and 56 and older. Table 2 provides a distribution of the workforce by age (based on age at the end of five years), and exiters by age across three time periods.

Table 2: Exiters By Age* Statewide
Two-Point in Time Analysis: Across Three Time Periods

	1998/99 - 2002/03		1999/00 - 2003/04		2000/01 - 2004/05	
	Number	Percent	Number	Percent	Number	Percent
Total Teachers	51,996	100%	52,652	100%	53,216	100%
Total Exiters (out of WA ed System)	10,721	21%	10,628	20%	10,601	20%
<i>21-30 Age Range</i>						
Workforce in Age Range	2,888	6%	3,103	6%	3,349	6%
Exiters in the Age Range	810	28%	828	27%	851	25%
Exiters of Total Exiters		8%		8%		8%
<i>31-40 Age Range</i>						
Workforce in Age Range	12,008	23%	12,401	24%	12,502	23%
Exiters in the Age Range	2,505	21%	2,539	20%	2,439	20%
Exiters of Total Exiters		23%		24%		23%
<i>41-50 Age Range</i>						
Workforce in Age Range	14,695	28%	14,160	27%	13,810	26%
Exiters in the Age Range	1,329	9%	1,246	9%	1,200	9%
Exiters of Total Exiters		12%		9%		11%
<i>51-55 Age Range</i>						
Workforce in Age Range	11,473	22%	10,877	21%	10,435	20%
Exiters in the Age Range	1,649	14%	1,459	13%	1,369	13%
Exiters of Total Exiters		15%		14%		13%
<i>56+ Age Range</i>						
Workforce in Age Range	10,932	21%	12,113	23%	13,120	25%
Exiters in the Age Range	4,427	40%	4,556	38%	4,742	36%
Exiters of Total Exiters		41%		43%		45%

*Based on age at the end of each five year period.

On average, approximately 20 percent of all teachers in the state were no longer in the Washington education system five years later. By considering teachers in the oldest age bracket (56 years and older) who are leaving the Washington system of education altogether (assuming that few individuals leaving the Washington education system at this age do so to take a new job or raise a family), we can estimate that more than 40 percent are leaving due to retirement. This pattern is consistent across the three time periods that were examined.

We now turn our attention to the population of all beginning teachers in 2000. The distribution of beginning teachers by age reveals some interesting characteristics (see Table 3). In contrast to frequently cited statistics that half of teachers quit in the first five years, these data indicate that 74 percent of beginning teachers who started as classroom teachers in 2000 were still in the Washington education system in some capacity five years later. These findings are consistent with analyses of the 1996 and 1997 cohorts of beginning teachers in Washington in which 72 percent and 74 percent respectively were still in the workforce after five years (Plecki, et al., 2003).

Table 3: Beginning Teacher Exiters by Age*
Two-Point in Time Analysis: 2000/01 - 2004/05

	2000/01 - 2004/05	
	Number	Percent
Total Beginning Teachers (<1 yr exp)	3,083	100%
Exiters of All Beginning Teachers		26%
<i>21-30 Age Range</i>		
Beginning Teachers in Age Range	1,442	47%
Exiters in the Age Range	383	27%
Exiters of Total Beginning Exiters		47%
<i>31-40 Age Range</i>		
Beginning Teachers in Age Range	903	29%
Exiters in the Age Range	243	27%
Exiters of Total Beginning Exiters		30%
<i>41-50 Age Range</i>		
Beginning Teachers in Age Range	465	15%
Exiters in the Age Range	102	22%
Exiters of Total Beginning Exiters		22%
<i>51-55 Age Range</i>		
Beginning Teachers in Age Range	185	6%
Exiters in the Age Range	51	28%
Exiters of Total Beginning Exiters		6%
<i>56+ Age Range</i>		
Beginning Teachers in Age Range	88	3%
Exiters in the Age Range	37	42%
Exiters of Total Beginning Exiters		5%

*Based on age at the end of the five-year period (2004/05).

In examining the beginning teachers who exit in each of the age ranges, we find that the percentage of exiters is proportionate to the percentage of the population in that age range. However, by comparing the data in Tables 2 and 3, we find that while all teachers who are in the 41- 55 age range are among the least likely to exit the system (9 percent), the attrition rate for beginning teachers in this age group is considerably higher (22 percent).

Part II: Beginning Teachers: Characteristics and Mobility Patterns in the First Five Years

Examining the Characteristics of Beginning Teachers

In order to more fully understand the nature of the cohort of beginning teachers in 2000, we compiled additional descriptive data including how beginning teachers were distributed by school characteristics such as school size, poverty, the racial and ethnic diversity of students and regional location. We also examined the full or part time status of this cohort of beginning teachers and how they are distributed across districts in the state.

The vast majority of beginning teachers are full-time, with 83% of teachers having a full-time equivalent appointment of 90 percent or greater. After the first year, the percentage of full-time teachers increases to approximately 90 percent in each subsequent year. The 2000 cohort of beginning teachers were located in 232 of the state's 296 districts.² Beginning teachers in 2000 comprised 5.7 percent of the total teacher workforce. Ninety-five of the 232 districts which had beginning teachers exceeded this statewide average of 5.7 percent, with 32 districts exceeding 10 percent of their total workforce as beginning teachers. However, more than half (17 districts) of these 32 districts have fewer than 5 beginning teachers. The larger districts which have more than 10 percent of their workforce as beginning teachers are Seattle (10.3 percent), Bellevue (11.6 percent), Franklin-Pierce (12 percent), and Tukwila (16.2 percent). See Appendix A for additional information.

Next, we examined how the 2000 cohort of beginning teachers were distributed across schools. Table 4 displays the distribution of beginning teachers by school enrollment, school poverty level, and ethnic/racial composition of the students in 2000. The majority of beginning teachers were located in schools with an enrollment of 400 to 800 students. Approximately a quarter of the beginning teachers in 2000 were located in schools serving a substantial number of students in poverty (51 percent or more students enrolled in the Free or Reduced Price Lunch program). Nearly all beginning teachers worked in schools serving students from racial and ethnic minorities. While not displayed in the table, the patterns of distribution of teachers by these three characteristics remains consistent for each of the years over the five-year period.

² Seven teachers were located in Educational Service Districts. For a complete display of teacher distribution by district, please refer to Appendix A.

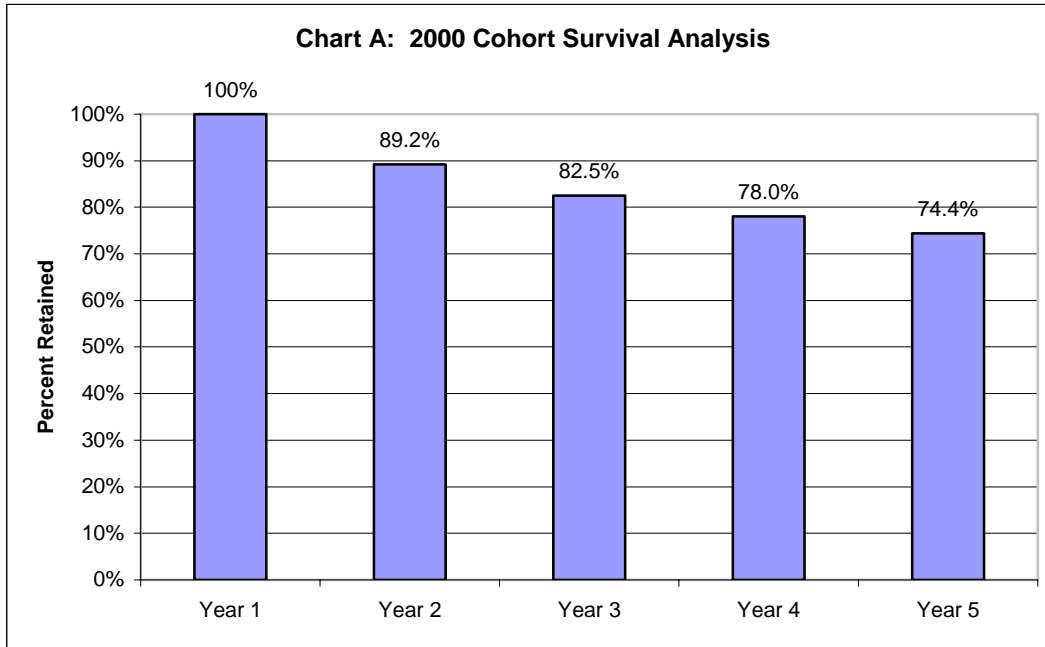
Table 4: School Characteristics of Beginning Cohort in 2000
(n = 3051 Teachers located in primary assignment)

	Number	Percent
<i>School Enrollment</i>		
1-199	115	3.8%
200-399	463	15.2%
400-599	963	31.6%
600-799	568	18.6%
800-999	302	9.9%
1000 or more	572	18.7%
Not reported or district location	68	2.2%
<i>Poverty of School*</i>		
0-20% FRPL	982	32.2%
21-50% FRPL	1222	40.1%
51+% FRPL	744	24.4%
Not reported or district location	103	3.3%
<i>Student Race/Ethnicity</i>		
90-100% White students	508	16.6%
80-89% White students	794	26.0%
70-79% White students	532	17.4%
60-69% White students	367	12.0%
Fewer than 60% White	781	25.6%
Not reported or district location	69	2.2%

*Poverty based on percent of students enrolled in Free or Reduced Price Lunch Program

Yearly Retention and Mobility Rates for Beginning Teachers

In order to obtain a more detailed understanding of the retention and mobility patterns of beginning teachers, we conducted additional analyses for each year within the five year period from the 2000-1 school year to the 2004-05 school year. Chart A shows the cohort survival rates of the original cohort of 3,051 teachers for each year over the five year period. As this chart illustrates, nearly 75 percent of the beginning teachers could be found in the Washington education system five years after entering the profession.



During the five-year period, a small number of teachers who had temporarily left the Washington education system in one year re-entered the Washington teacher workforce in a later year. While small in number, approximately 60 to 70 teachers of the entire cohort were “re-enterers” for each year where re-entry was possible (from 2002-03 onward). Re-enters typically return to teaching rather than some other type of assignment. In two of the three years, approximately half of the re-enters moved to another district and between 20 and 27 percent returned to their same schools. Table 5 provides more detailed information regarding the cohort survival rates for each year as well as depict the yearly pattern for those who re-enter the workforce during over the time period studied.

Table 5: 2000 Beginning Teacher Cohort Survival Rates and Re-entering Teachers Over Five Years

Beginning Teachers in 2000	Year 1 2000-01	Year 2 2001-02	Year 3 2002-03	Year 4 2003-04	Year 5 2004-05
# Beginning Teachers	3,051*	2,723	2,517	2,380	2,270
% Beginning Teachers of original cohort	100%	89.2%	82.5%	78.0%	74.4%
<i>Total # Re-Entering Teachers in each year</i>			60	71	66
Re-Entering Stayers (same school)			13	14	18
Re-Entering Movers in (same district)			12	22	14
Re-Entering Movers out of district			32	27	32
Re-Entering Movers changed assignment			3	8	2

**The number of teachers included in the 2000 Cohort year by year analyses varies slightly from the earlier two-point in time analysis (by 32 individuals).*

The mobility of beginning teachers in this cohort can be examined in greater detail by tracking the assignment of teachers each year over the five-year period. This analysis reveals the percentage of teachers who stayed in the same school, moved to another school or district, or left the Washington education system. The year-by-year mobility patterns of beginning teachers are displayed in Table 6.

Table 6: 2000 Beginning Teacher Cohort: Year by Year Retention and Mobility

Beginning Teachers in 2000	Year 1 2000-01	Year 2 2001-02	Year 3 2002-03	Year 4 2003-04	Year 5 2004-05
# Teachers from Original Cohort	3,051	2,723	2,517	2,380	2,270
Mobility & Retention					
# Stayers in School % Stayers in School		2,286 74.9%	2,210 81.2%	2079 82.6%	1987 83.5%
# Movers in District % Movers in District		240 7.9%	125 4.6%	160 6.4%	132 5.5%
# Movers out District % Movers out District		197 6.5%	122 4.5%	70 2.8%	85 3.6%
# Exiters from WA system % Exiters from WA system		328 10.8%	268 9.8%	207 8.2%	176 7.4%

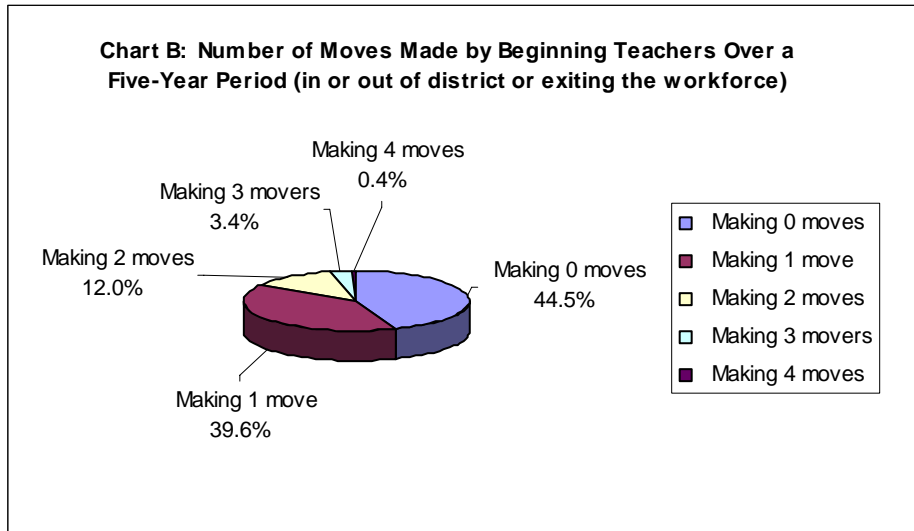
From the data in this table, we can see that yearly rates of mobility decrease over the time period studied. That is, smaller proportions of teachers chose to move or leave as their years of experience increase. The highest rates of movement or attrition are seen between years one and two.

The Movers: Frequency of Movement, Region of State, and School Characteristics

Tracking the movement of beginning teachers is important because a high turnover of teachers can impact the quality of instruction that students receive. Many things may cause beginning teachers to move with greater frequency than other teachers. For some, teaching at this school is not what they thought it would be. But other forces beyond personal preferences may come into play. For example, as the staff members with the least seniority, they are more likely to be impacted by a reduction in force, changes in enrollments, or school or district organizational changes. While this data cannot explain why beginning teachers move, it can be used to track the frequency of their movement and to detect some important patterns.

To better understand the frequency of movement among beginning teachers, we examined the number of moves each teacher made in their first five years in the profession. As shown in Chart B, most beginning teachers either made no move (45 percent stayed in the same school over the entire period), or just one move (40 percent moved to another school or district, or exited the Washington education system) over the

five years. Only 16 percent of Washington teachers moved two or more times during their first five years.



Among the beginning teachers who moved to another district, the majority remained within the same regional Educational Service District or in the same geographic area of the state (as represented by Eastern Washington, the Central Puget Sound and Western Washington outside of the Central Puget Sound). Table 7 provides information on the movement the beginning teachers who changed school districts during the first five years of their career.

Table 7: Regional Movement of Beginning Teachers Over Five Years:
Based on Differences Within ESD and Between Regions of Washington State

	After Yr 1		After Yr 2		After Yr 3		After Yr 4	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Total Movers of out District	189	100%	120	100%	70	100%	85	100%
<i>Mobility and Educational Service District</i>								
Movers within ESD	124	65.6%	69	57.5%	36	51.4%	51	60.0%
Movers out of ESD	65	34.4%	51	42.5%	34	48.6%	34	40.0%
<i>Mobility and Region of State</i>								
Movers within region	144	76.2%	87	72.5%	43	61.4%	59	69.4%
Movers outside region	45	23.8%	33	27.5%	27	38.6%	26	30.6%

*ESD as defined by Washington's 9 Educational Service Districts.

Region as defined by 3 geographical areas: Central Puget Sound (ESD 121), Western WA outside Central Puget Sound (ESDs 112, 113, 114 and 189) and Eastern WA (ESDs 101, 105, 123 and 171).

Analysis does not include private schools.

In prior research we found that teacher retention is related to the composition of the school's student population – in particular to the poverty level and racial make-up of the

students at the school (Plecki, et al., 2005). In some cases, school poverty, retention and school performance are linked to one another and poverty rates are strongly associated with student performance. These relationships are most apparent when looking within individual districts at differences among schools. Additionally, the disproportional distribution of beginning teachers in high poverty schools can be cause for concern. However, when the data is aggregated to the state level, these differences are not so pronounced, and the question of a disproportional distribution of beginning teachers in high poverty schools cannot be resolved without further analysis.

Nevertheless, we did attempt to examine whether beginning teachers who move to another school make a change to a school with higher or lower poverty than their prior school. We define the change in poverty rate in two ways: first, as a change in poverty of at least 20 percent, and second, by examining differences on the basis of the poverty level of the original school and movement within levels or subcategories of poverty.

Table 8 provides data regarding the percentage of teachers who moved to a school with lower, higher, or no difference in poverty. For example, using the 20 percent criteria, a move would be categorized as a change to a higher poverty school if the teacher moved from a school with a 35% poverty rate to a school with a 55% poverty rate. When examining the data for each of the four years using the 20% criteria, we find approximately one half of movers change to schools that have less than a 20 percent difference in poverty level. When examining the movers to higher or lower poverty levels, we find slightly higher proportions of teachers moving to lower poverty schools in years four and five. The same pattern emerges when conducting the analysis using a 10 percent criteria.

Table 8: Relationship Between School Poverty and Movement of Beginning Teachers Over Five Years:*
Based on 20% Difference in Poverty Rates Between Initial School and New School

	After Yr 1		After Yr 2		After Yr 3		After Yr 4	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Total Movers (in or out of district)	437	100%	247	100%	230	100%	217	100%
Movers to higher poverty**	72	16.5%	32	13.0%	26	11.3%	29	13.4%
Movers to lower poverty	63	14.4%	39	15.8%	44	19.2%	44	20.3%
Movers with no poverty difference (+/-20%)	252	57.7%	153	61.9%	109	47.4%	120	55.3%
Not Reported	50	11.4%	23	9.3%	51	22.2%	24	11.1%

*Analysis does not including re-enterers

**Poverty based on percent of students enrolled in Free or Reduced Priced Lunch Program

An additional analysis of beginning teachers who moved schools was conducted by examining teacher movement within specific categories of school poverty. There are no patterns that indicate a predominant movement of beginning teachers from higher to lower poverty schools. This analysis is somewhat problematic, however, given the unequal distribution of schools by poverty in Washington (fewer high poverty schools

compared with low and moderate poverty schools across the state) and the small number of movers from the 2000 cohort in each year (see Table 9).

Table 9: Relationship Between School Poverty and Movement of Beginning Teachers Over Five Years:*
Based on Differences Within Poverty Categories

	After Yr 1		After Yr 2		After Yr 3		After Yr 4	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
<i>Initial School within 0-20% FRPL</i>	146		58		46		37	
Movers to 11-20% higher poverty	25	17.0%	7	12.1%	9	20.0%	4	10.8%
Movers to 21-40% higher poverty	33	22.6%	12	20.1%	4	8.7%	8	21.6%
Movers to 40% or higher poverty	11	7.5%	4	6.8%	6	13.0%	8	21.6%
Movers with no poverty difference (+/-10%)	48	32.8%	31	53.4%	16	34.8%	16	43.2%
Movers to 11% or lower poverty	23	15.7%	0	0	3	6.5%	0	0
Not reported or district location	6	4.1%	4	6.8%	8	17.4%	1	2.7%
<i>Initial School within 21-50% FRPL</i>	168		107		100		97	
Movers to 11-20% higher poverty	16	9.5%	17	15.9%	14	14.0%	7	7.2%
Movers to 21% or higher poverty	27	16.1%	13	12.1%	14	14.0%	12	12.4%
Movers with no poverty difference (+/- 10%)	65	38.6%	41	38.3%	36	36.0%	46	47.4%
Movers to 11-20% lower poverty	31	18.4%	14	13.8%	6	6.0%	14	14.4%
Movers to 21% or lower poverty	19	11.3%	16	15.0%	11	11.0%	12	12.4%
Not reported or district location	10	5.9%	6	5.6%	19	19.0%	6	6.2%
<i>Initial School within 51+% FRPL</i>	99		74		71		67	
Movers to 11% or higher pov	7	7.1%	7	9.5%	9	12.7%	4	6.0%
Movers with no poverty difference (+/-10%)	29	29.3%	29	39.2%	13	18.3%	16	23.9%
Movers to 11-20% lower pov	9	9.1%	10	13.5%	5	7.0%	14	20.9%
Movers to 21-40% lower pov	29	29.3%	14	18.9%	23	32.4%	10	14.9%
Movers to 41+% lower pov	15	15.2%	9	12.2%	10	14.1%	22	32.8%
Not reported or district location	10	10.0%	5	6.8%	11	15.5%	1	1.5%

*Analysis does not including re-enterers

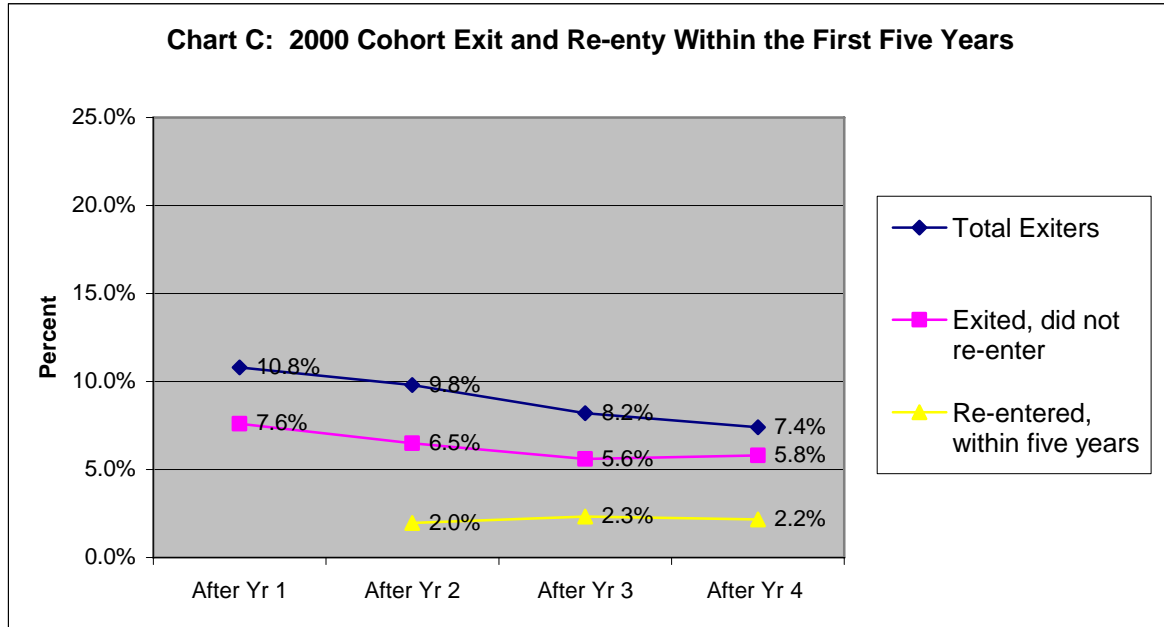
**Poverty based on percent of students enrolled in Free or Reduced Price Lunch Program

We also analyzed whether teachers who moved left for schools with either lower or higher percentages of students from racial/ethnic minorities or higher or lower levels of student performance on the WASL in reading. Nearly half of the movers experienced no change in the overall level of diversity in the student population, and approximately equal amounts of movers went to more and less diverse schools or schools with higher or lower student performance.

The lack of an obvious pattern in the aggregate state data with regard to poverty, student diversity or student performance does not suggest problems of teacher distribution and retention do not exist. Rather, more sophisticated statistical analyses beyond the scope of this descriptive work are necessary to address those pressing issues. Based on previous work, differences are likely to surface in a nested analysis of within district differences with attention to particular subgroups of students and teachers.

Patterns among Exiters

Finally, we can make some statements about the 2000 cohort of beginning teachers who exited the Washington education system within the first five years. As previously discussed, the number of exiters declines in each succeeding year, while a small percentage of teachers re-enter the system within the first five years (less than 2.2 percent re-entered each year). Chart C, illustrates the percentage who exit temporarily, those who re-enter, and those who do not return within the five-year period.



Of concern in some policy circles is whether disproportionate numbers of beginning teachers are exiting higher poverty schools. By examining the poverty levels of the schools in which all beginning teachers were located and the percentage of teachers who exited from those schools in the following year, we were able to determine that teachers in the 2000 cohort did not disproportionately leave higher poverty schools (see Table 10). Roughly the same percentage of teachers exited from low, moderate and high poverty schools relative to the overall proportion of teachers in those schools for each year under investigation.

Table 10: Relationship Between Exiters and School Poverty

Poverty Level of School*	Year 1 (2000/01)		Year 2 (2001/02)		Year 3 (2002/03)		Year 4 (2003/04)	
	% All Teachers	% Exiters after Yr 1	% All Teachers	% Exiters after Yr 2	% All Teachers	% Exiters after Yr 3	% All Teachers	% Exiters after Yr 4
0-20% FRPL	32.2%	30.2%	28.8%	29.1%	23.0%	23.7%	21.6%	24.4%
21-50% FRPL	40.1%	41.8%	42.1%	40.3%	44.6%	43.9%	43.9%	38.1%
51+% FRPL	24.4%	23.8%	25.7%	23.5%	28.2%	24.2%	28.6%	32.9%
Not reported or district location	3.3%	4.3%	3.5%	7.1%	4.1%	8.2%	5.8%	4.5%

* Poverty based on percent of students enrolled in Free or Reduced Price Lunch Program

Summary of Findings

This analysis of the longitudinal attrition, retention, and mobility rates of beginning teachers in Washington state provides evidence to support the following statements:

- The actual attrition rates for beginning teachers are considerable lower than is often believed. Only a quarter of the state’s beginning teachers are no longer in the Washington education system after five years.
- Beginning teachers are less rooted in their schools than the workforce as a whole. Only 46 percent of beginning teachers remain in their schools after five years, compared to 59 percent of the total teacher workforce in the state.
- Both beginning and novice teachers move to other school districts at higher rates than the average rate for all teachers.
- An examination of the racial and ethnic composition of the new entrants into the teacher workforce reveals that Washington continues to experience a significant mismatch between the increasingly diverse student population and the predominantly White teacher workforce.
- The highest rates of movement or attrition for beginning teachers are seen after the first year as compared to subsequent years over a five-year time period.
- Over a five year period, the majority of teachers (85 percent) either stayed at their original school (45 percent) or made just one move (40 percent).
- In the first year of teaching, about one quarter of beginning teachers (24 percent) were located in schools with poverty rates above 50%, and nearly a third (30 percent) were located in schools with poverty rates less than 20 percent.

- Generally speaking, when beginning teachers change schools, they are equally likely to move to a lower poverty school as they are to move to a higher poverty school. However, the most common move is to a school of a similar poverty level.
- About the same percentage of teachers exited from low, moderate and high poverty schools relative to the overall proportion of teachers in those schools for each year under investigation

Concluding Comments and Unanswered Questions

From this analysis, we have reason to believe that the attrition and mobility rates for beginning teachers in Washington state are not as high as might be commonly perceived. In some ways, this is encouraging news for policymakers who are focused on retaining a quality workforce in the state. However, there are also several concerns that emerge from this analysis. First, the state's teacher workforce continues to fall short of representing the ethnic and racial diversity of the population of students in Washington. Second, mobility rates of beginning teachers are higher than those of their more experienced colleagues. So while a majority of teachers remain in the profession in the first five years, they change schools or districts at higher rates.

State policies are often aimed at providing quality mentoring and induction programs for beginning teachers as a means for improving teaching and learning. Given the relative stability of the beginning teacher workforce in Washington, mentoring and induction policies have the potential for a greater impact than might occur in states with higher attrition rates of beginning teachers.

It is important to note that this analysis provides a view of beginning teachers from the perspective of the overall state workforce. This look at aggregate data for all teachers in Washington may mask some important differences that might emerge when we look more closely inside individual districts. As with other analytic work done in the area of teacher mobility, it is also important to examine whether or not patterns which emerge from state level analysis are present when looking specifically at individual districts and their contexts. This analysis does not take into account the unique characteristics of each district in terms of their variation in overall levels of poverty, the distribution of poverty across schools, the variance in the composition of the student population and the proportion of beginning teachers represented in each district. Additional analyses examining these within-district differences would further inform our understanding of the beginning teacher workforce in Washington state.

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Appendix A

Table 1: Distribution of Beginning Teachers (<1 Yr Experience) in Washington State in 2000 and Percent of Each District's Workforce

**Table 1: Distribution of Beginning Teachers (<1 Yr Experience) in Washington State in 2000
and Percent of Each District's Workforce***
(Statewide 3,051 beginning teachers represent 5.7% of workforce)

County and District	Number of Beginning Teachers	Percent of District Workforce	County and District	Number of Beginning Teachers	Percent of District Workforce
Adams County			Garfield County		
Lind	1	5.0%	Pomeroy	1	3.3%
Othello	15	9.3%	Grant County		
Ritzville	1	3.6%	Coulee-Hartline	1	5.3%
Asotin County			Ephrata	3	2.6%
Asotin-Anatone	2	4.7%	Moses Lake	22	6.4%
Clarkston	4	2.7%	Quincy	12	9.2%
Benton County			Royal	5	6.4%
Finley	3	4.7%	Soap Lake	1	2.8%
Kennewick	23	3.0%	Wahluke	13	14.6%
Kiona-Benton	4	4.4%	Warden	2	3.4%
Paterson	1	20.0%	Grays Harbor County		
Richland	17	3.4%	Aberdeen	18	8.1%
Chelan County			Elma	5	4.6%
Cascade	4	4.7%	Hoquiam	6	5.1%
Cashmere	2	2.1%	McCleary	2	11.1%
Entiat	1	3.6%	Montesano	1	1.3%
Manson	3	7.3%	North Beach	1	2.3%
Wenatchee	21	5.0%	Oakville	2	9.1%
Clallam County			Ocosta	2	4.1%
Cape Flattery	3	5.5%	Quinalt	3	14.3%
Port Angeles	11	4.0%	Taholah	1	4.5%
Quillayute Valley	2	2.3%	Wishkah Valley	1	5.6%
Sequim	3	1.9%	Island County		
Clark County			Coupeville	1	1.5%
Battle Ground	15	2.8%	Oak Harbor	16	5.3%
Camas	17	8.1%	South Whidbey	4	3.1%
Evergreen	73	5.9%	Jefferson County		
La Center	3	4.2%	Chimacum	1	1.4%
Ridgefield	7	7.4%	Port Townsend	3	3.2%
Vancouver	75	6.6%	Queets-Clearwater	1	25.0%
Washougal	10	6.9%	Quilcene	1	5.0%
Columbia County			King County		
Dayton	1	2.4%	Auburn	46	6.8%
Cowlitz County			Bellevue	109	11.6%
Castle Rock	2	3.0%	Enumclaw	11	3.6%
Kalama	4	8.0%	Federal Way	54	4.8%
Kelso	18	6.3%	Highline	65	7.1%
Longview	7	1.8%	Issaquah	51	7.1%
Toutle Lake	1	2.9%	Kent	39	2.9%
Woodland	4	3.9%	Lake Washington	77	6.1%
Douglas County			Mercer Island	17	6.5%
Bridgeport	4	8.3%	Northshore	37	3.4%
Eastmont	11	3.9%	Renton	50	7.7%
Mansfield	1	7.7%	Riverview	3	1.8%
Waterville	1	4.3%	Seattle	277	10.3%
Ferry County			Shoreline	40	6.8%
Curlew	3	15.8%	Snoqualmie Valley	7	3.0%
Inchelium	1	4.5%	Tahoma	24	6.9%
Republic	3	10.3%	Tukwila	24	16.2%
Franklin County			Vashon Island	11	9.7%
North Franklin	5	4.4%			
Pasco	39	7.1%			

*Only counties and districts reporting teachers with less than one year of experience are represented.

**Table 1: Distribution of Beginning Teachers (<1 Yr Experience) in Washington State in 2000
and Percent of Each District's Workforce***
(Statewide 3,051 beginning teachers represent 5.7% of workforce)

County and District	Number of Beginning Teachers	Percent of District Workforce	County and District	Number of Beginning Teachers	Percent of District Workforce
Kitsap County			Pend Oreille County		
Bainbridge Island	12	5.5%	Cusick	1	4.2%
Bremerton	9	2.6%	Newport	3	3.9%
Central Kitsap	38	5.1%	Selkirk	1	3.6%
North Kitsap	19	4.6%	Pierce County		
South Kitsap	23	3.9%	Bethel	64	7.5%
Kittitas County			Carbonado	1	7.7%
Cle Elum-Roslyn	3	5.5%	Clover Park	50	7.1%
Easton	2	15.4%	Eatonville	8	6.8%
Ellensburg	8	5.0%	Fife	9	5.6%
Kittitas	2	5.4%	Franklin Pierce	53	12.0%
Klickitat County			Orting	8	8.2%
Glenwood	2	16.7%	Pennisula	15	2.7%
Goldendale	2	2.8%	Puyallup	69	6.3%
Klickitat	3	20.0%	Steilacoom Hist.	8	7.5%
Lyle	1	3.6%	Sumner	27	6.6%
White Salmon	2	2.9%	Tacoma	92	4.8%
Lewis County			University Place	9	3.0%
Adna	1	3.4%	White River	6	2.7%
Centralia	5	2.7%	San Juan County		
Chehalis	7	4.3%	Lopez Island	1	4.2%
Morton	2	6.1%	Orcas Island	4	9.8%
Mossyrock	3	7.1%	San Juan Island	1	1.9%
Napavine	2	4.8%	Skagit County		
Onalaska	3	6.1%	Anacortes	5	3.0%
Toledo	2	4.1%	Burlington-Edison	7	3.6%
White Pass	1	1.9%	Concrete	3	5.9%
Winlock	3	6.5%	Conway	3	13.0%
Lincoln County			La Conner	4	7.8%
Davenport	1	3.1%	Mount Vernon	12	4.2%
Odessa	2	8.7%	Sedro-Woolley	21	8.4%
Mason County			Skamania County		
Grapeview	2	13.3%	Mill A	1	14.3%
Hood Canal	1	4.2%	Mount Pleasant	1	25.0%
North Mason	5	3.6%	Stevenson-Carson	3	4.6%
Pioneer	3	6.4%	Snohomish County		
Shelton	14	5.7%	Arlington	12	4.7%
Southside	1	7.1%	Darrington	1	2.5%
Okanogan County			Edmonds	93	8.0%
Brewster	3	4.6%	Everett	59	6.4%
Methow Valley	1	2.2%	Granite Falls	9	8.3%
Okanogan	4	6.0%	Index	1	16.7%
Omak	1	0.8%	Lake Stevens	32	9.6%
Oroville	3	6.0%	Lakewood	6	5.0%
Pateros	1	4.3%	Marysville	51	8.2%
Pacific County			Monroe	6	1.9%
Naselle Grays River	3	8.8%	Mukilteo	52	7.3%
Ocean Beach	5	6.6%	Snohomish	22	4.9%
Raymond	1	2.5%	Stanwood-Camano	20	6.3%
South Bend	2	5.3%	Sultan	9	8.3%

*Only counties and districts reporting teachers with less than one year of experience are represented.

**Table 1: Distribution of Beginning Teachers (<1 Yr Experience) in Washington State in 2000
and Percent of Each District's Workforce***
(Statewide 3,051 beginning teachers represent 5.7% of workforce)

County and District	Number of Beginning Teachers	Percent of District Workforce	County and District	Number of Beginning Teachers	Percent of District Workforce
Spokane County			Yakima County		
Central Valley	21	3.3%	East Valley	4	3.1%
Cheney	6	3.1%	Grandview	2	1.3%
Deer Park	3	2.9%	Granger	6	8.7%
East Valley	4	1.6%	Highland	5	7.5%
Freeman	2	4.2%	Mabton	3	5.4%
Liberty	1	2.6%	Mount Adams	1	1.5%
Mead	18	3.8%	Naches Valley	4	4.8%
Medical Lake	8	6.2%	Selah	8	4.2%
Nine Mile Falls	2	2.3%	Sunnyside	17	6.3%
Riverside	4	3.6%	Toppenish	23	11.9%
Spokane	52	2.9%	Union Gap	1	2.7%
West Valley	10	5.3%	Wapato	17	8.9%
Stevens County			West Valley	9	3.8%
Chewelah	1	1.4%	Yakima	52	6.7%
Columbia	1	5.6%	Zillah	1	1.5%
Colville	4	3.4%	Educational Service Districts		
Kettle Falls	3	5.8%	ESDs	7	NA
Northport	2	10.5%			
Wellpinit	2	6.7%			
Thurston County					
Griffin	2	5.7%			
North Thurston	39	5.4%			
Olympia	12	2.2%			
Rainier	1	1.9%			
Rochester	4	3.1%			
Yelm	16	6.6%			
Walla Walla County					
College Place	4	7.4%			
Columbia	3	5.3%			
Dixie	1	33.3%			
Prescott	1	4.8%			
Touchet	1	4.5%			
Waitsburg	1	3.6%			
Walla Walla	8	2.2%			
Whatcom County					
Bellingham	35	6.3%			
Blaine	9	8.7%			
Ferndale	16	5.9%			
Lynden	3	2.2%			
Mount Baker	7	5.6%			
Nooksack Valley	3	2.9%			
Whitman County					
Colfax	1	2.0%			
Lacrosse	2	11.8%			
Oaksdale	1	6.3%			
Palouse	1	5.0%			
Pullman	5	3.6%			
Rosalia	1	4.5%			
St. John	2	11.1%			

*Only counties and districts reporting teachers with less than one year of experience are represented.