

Understanding Principal Retention and Mobility in Washington State

Final Report

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Executive Summary

Introduction and Focus of the Study

The work of a school principal is complex and multi-faceted. Expectations for the role are steadily rising, and questions have surfaced regarding the capacity of principals to meet all of these expectations. In recent years, Washington state has engaged in numerous instructional improvement and accountability initiatives, including revisions to the way in which educators are evaluated. A sizable portion of the workload associated with these initiatives rest on the shoulders of school principals and assistant principals. This study aims to provide insight into the demographics of principals and assistant principals, their retention, mobility, and career patterns, and the equity issues associated with differences across schools in Washington state.

Methodology and Data Sources

The primary data source is the personnel data from the state's S-275 dataset. This dataset contains demographic and assignment information about all educators in Washington state. We linked the S-275 data to other state databases, including school demographic data, to form a portrait of principal and assistant principal retention and mobility from existing state datasets. We have access to multiple years of data, enabling us to conduct longitudinal analyses that are comparable over time. Using state administrative datasets, we examined four five-year time periods: 2000-01 to 2004-05, 2005-06 to 2009-10, 2010-11 to 2014-15, and 2011-12 to 2015-16. We also examined year-by-year changes in demographic characteristics and retention and mobility for each year for the period 2010-11 to 2015-16. Our analysis of principal and assistant principal retention and mobility is based on four categories: stayers in the same school, movers in district, movers out of district, and exiters from the Washington education system.

Selected Findings

Demographic characteristics

- In the 2015-16 school year, there were 1,928 principals and 1,197 assistant principals working in Washington state. Nearly all principals (97%) and assistant principals (99%) had an advanced degree.
- Over a 15-year time period (2000-01 to 2015-16) the proportion of female assistant principals increased from 40% to 50%, and the proportion of female elementary assistant principals increased from 58% to 63%.
- Since 2000, the racial and ethnic diversity of the school administrator workforce made only minimal gains. In 2000-01, 91% of principals were White, compared to 89% in 2015-16. During this time period, the increase in diversity of the workforce was concentrated among Hispanics, with the percent of Hispanic principals increasing from 1.6% to 3.3%, and the percent of Hispanic assistant principals rising from 4.3% to 5.8%.

- Larger proportions of assistant principals were African-American (5.6%) and Hispanic (5.8%) as compared to principals (2.8% and 3.3%, respectively). However, over time, the percent of African-American principals actually decreased, dropping from 3.7% to 2.8%, and the percent of African-American assistant principals changed from 6.0% to 5.6% during the time period from 2001-01 to 2015-16.
- There has been a substantial increase in the percentage of principals over the age of 60, from 1.9% in 2000-01 to 8.1% in 2015-16.

Growth rates of principals and assistant principals

- From 2010-11 to 2015-16, the principal full-time equivalent (FTE) increased by 4%, as did the growth in student enrollment. In contrast, the number of assistant principals increased by 29% during this same time period. The vast majority of the increase in assistant principals was at the elementary level, where the number of elementary assistant principal positions more than doubled. However, it is important to note that the vast majority of assistant principals (71%) work in secondary schools.

Placement of elementary assistant principals

- 94% of elementary assistant principals work in schools with enrollments of 500 students or greater, and 48% are located in schools with at least 600 students. In 2014-15, nearly half (45%) worked in schools in the Central Puget Sound (ESD 121).
- Larger proportions of elementary school assistant principals worked in schools with the highest proportion of students in poverty, students of color, and students enrolled in the Transitional Bilingual Instructional Program, compared to the proportion of principals working in the same schools. Thus, it appears that elementary assistant principals are being assigned to schools with greater needs.

Compensation levels

- Secondary school principals have higher average compensation levels than elementary school principals, which is also the case for assistant principals.
- Principals and assistant principals working in the Central Puget Sound area (ESD 121) have higher average compensation levels than those in Eastern Washington or in other Western Washington areas of the state.
- School administrators working in districts with lower property wealth have lower salaries.
- No notable differences exist in compensation between male and female principals or assistant principals.

Retention and mobility

Retention and mobility was examined using both five-year trends and year-by-year analyses of the administrator workforce. The five-year trend data provide a broader look at the stability of the overall workforce. The year-by-year analyses provide more detail and allow us to gauge whether more pronounced patterns of movement occur in specific years.

Five-year trends

- On average, 42% of principals remain in their same schools after five years, while an additional 23% remain in their same districts. 22% of principals exited the Washington state system, including those who may have retired.
- The average percent of principals staying in their same schools after five years (42%) is lower than the five-year retention rate of teachers staying in their same schools (59%). Principals and teachers have similar average rates of exiting the workforce after five years.
- A higher proportion of assistant principals move to other districts, compared to principals. Slightly lower percentages of assistant principals remain in the same school and higher proportions move to other schools in the district than principals. The proportion of exiters who are assistant principals is lower than for principals.

Year-by-year trends

- On average, from one year to the next, 81% of principals remain in the same school, 9% move to another school in the same district, 4% move to another district, and 6% exit the workforce. Overall, no large differences exist between the yearly retention and mobility rates of elementary and secondary principals.
- Assistant principals have higher average annual rates of mobility and slightly lower rates of exiting as compared to principals.
- Secondary assistant principals have higher annual rates of staying in the same school as compared to elementary assistant principals, and elementary principals have higher rates of mobility within the same district.
- The average yearly retention rates of elementary assistant principals who stay in the same school (65%) was substantially lower than that of elementary principals (81%). This large difference was not noted at the secondary level.

Comparisons to national statistics

- The percent of Washington state principals who stayed in the same school (81.9%) was higher than the national rate of 77.4%, and the percent of Washington principals who exited (5.5%) was lower than the national statistic of 11.5% for the time period 2011-12 to 2012-13.
- In Washington state, 75% of principals who changed schools moved to a school in the same district. Nationally, 54% of public school principals who changed schools moved to a school within the same district.
- A higher proportion of Washington principals (84%) stay in schools where the poverty rate exceeds 75%, compared to the national average of 73%.

Career shifts of principals and assistant principals

- The most common career shift is from assistant principal to principal. On average, 40% of elementary assistant principals and 30% of secondary assistant principals were principals five years later.
- On average, 9% of elementary principals and 13% of secondary principals moved to central office roles other than Superintendent after five years. A much small proportion of principals move into the Superintendency after five years.

Factors influencing exiting or moving districts

- Results from logistic regression analyses indicate that male principals are statistically more likely than females to remain in the same district as a principal.
- Secondary principals are statistically less likely than elementary principals to remain in the same district.
- The statistical probability that a principal stays in the same district increases with age until about age 45, then decreases.
- The odds of a principal exiting the profession increase as the student poverty level in the school increases, but the odds of exiting decrease as the percent of students of color in the building increases.

Policy Implications

- There is a need to examine ways in which the school administrator workforce can become more diverse. Assistant principals are more racially and ethnically diverse than principals, but the workforce is overwhelmingly White, and the student population continues to become more diverse. There is a particular concern about the declining proportion of principals and assistant principals who are Black/African American.

- Compared to the national average, principals in Washington state stay in their schools and districts at higher rates, and a lower percentage of Washington principals exit the state's system. Retention and mobility rates are remarkably consistent over time.
- It is possible that the increase in assistant principals is partly due to substantially greater teacher evaluation responsibilities for building principals. This increase is concentrated at the elementary level, as many elementary schools have not typically been staffed with assistant principals.
- There are indications that some school contexts (enrollment, poverty rate, and percent of students of color) may be related to principal and assistant principal retention and mobility. Conversation about these factors seems indicated, and further analyses of school level contexts are warranted.

Study Limitations and Unaddressed Questions

This report did not examine the extent to which the current supply of school principals and assistant principals is adequate to meet future staffing needs. The study also does not address reasons why principals and assistant principals choose to move to other schools or districts, or why they decide to leave the profession, either temporarily or permanently. Finally, this report does not address how working conditions impact school leaders' decisions about their careers, nor does it examine the relationship between principal retention and teacher retention. Based on the findings in this study, inquiry into these questions is likely to yield further insight into policies that may enhance the retention and support of school leaders.

I. Background on Principal Retention and Mobility

A. Study Context

The work of a school principal is complex and multi-faceted. Expectations for the role are steadily rising, and questions have surfaced regarding the capacity of principals to meet all of these expectations. In recent years, Washington state has engaged in numerous instructional improvement and accountability initiatives, including revisions to the way in which educators are evaluated. A sizable portion of the workload associated with these initiatives rest on the shoulders of school principals and assistant principals. A recent study noted that principals work an average of 59 hours per week (Lavigne, Shakman, Zweig, & Zeller, 2016). Little systematic and statewide knowledge exists about the nature of the school administrator workforce and the career patterns of principals in Washington state. This study aims to provide insight into the demographics of principals and assistant principals, their retention, mobility, and career patterns, and the equity issues associated with differences across schools in Washington state.

B. Relevant Literature

While there is an extensive body of literature regarding the teacher workforce, research regarding the characteristics, retention, mobility, and career patterns of school administrators is more limited. Most of the research on the characteristics and retention of school principals comes from federal survey data or from a few studies of individual states. Research that examines assistant principals is even more limited.

A 2016 report sponsored by the National Center for Education Statistics examined trends in the demographics, experience, and compensation of public and private school principals over a 25-year period, from 1987-88 to 2011-12 (Hill, Ottem, & DeRoche, 2016). Data was derived from seven administrations of the national Schools and Staffing Survey (SASS), conducted by the U.S. Department of Education. The report found that among public school principals, the percentage of females, and principals with a Master's degree, increased over the time period examined. Additionally, when adjusting for inflation, principals earned higher salaries over the time period examined (Hill, Ottem, & DeRoche, 2016). Another report sponsored by the U.S. Department of Education found that in 2011-12, only 20% of school principals nationwide were individuals of color (U.S. Department of Education, 2016). In the same year, 48% of all students nationwide were individuals of color (Snyder, de Brey & Dillow, 2016).

Beginning in 2008-09, the National Center for Education Statistics has sponsored a Principal Follow-up Survey (PFS) as a component of the SASS. The PFS consists of a sample of principals in public and private K-12 schools across the nation, and was designed to collect data about principal attrition and mobility (Goldring & Taie, 2014). Using PFS data, the U.S. Department of Education's Institute for Education Sciences produced a report that examined principal retention and mobility for the period from 2011-12 to 2012-13. In that year, 77% of public school principals remained at the same school the following year, 7% moved to a different

school, and 12% left the principalship.¹ Of all public school principals who moved to a different school, 54% moved to a school in the same school district, and 38% of public school principals who left the profession did so due to retirement (Goldring & Taie, 2014).

A recently published study examined educator mobility within and across three Midwestern states over the period 2005-06 to 2011-12. On average, 6.8% of teachers and administrators in Iowa, 8.2% in Wisconsin, and 9.3% in Minnesota moved to a different school in the same state each year. Less than 0.1% of educators in these three states moved to another school in another state (Podgursky, Ehlert, Lindsay & Wan, 2016). A study of West Virginia principals indicated that 11% of public school principals exited the profession after one year, a statistic that is close to the average from national samples (Lochmiller, Adachi, Chestnut, & Johnson, 2016). A study of retention and mobility of school principals in North Carolina and Illinois found that principals in schools with higher percentages of students of color were more likely to change schools and leave the principalship, but remain in the education system (Gates et al., 2006). To date, research on principal retention, mobility, and career patterns has not been conducted in Washington state.

Researchers have also been exploring the relationship between school contexts, school leadership stability, and the retention and mobility of teachers. Substantial research has focused on factors related to teacher retention, including teacher demographic characteristics, teacher experience, student demographic characteristics, school working conditions, and school leadership (Borman & Dowling, 2008; Boyd et al., 2011; Burkhauser, 2016; and Johnson, Kraft, & Papay, 2012). Consequently, it is important to examine the extent to which school principals and assistant principals remain in their schools, and the extent to which school leadership turnover differentially impacts schools across the state.

II. Research Approach and Methods

A. Research Questions

The research questions addressed in this study of Washington state's principal and assistant principal workforce include the following:

1. What are the demographic characteristics of principals and assistant principals in Washington state?
2. To what extent have the demographics of the workforce changed in recent years?
3. What are the retention and mobility rates for principals and assistant principals over the past five years, and have they changed? If so, in what specific ways?

¹ These figures do not add to 100% due to missing data about the status of some principals who left their schools (4%).

4. To what extent have there been changes in the overall proportion of administrators serving as principals or assistant principals? In what ways, if at all, do these changes coincide with major statewide initiatives? What are the career trajectories of administrators in principal or assistant principal roles?

5. In what ways do differences in retention and mobility rates exist by: (a) demographic characteristics of principals and assistant principals, (b) school level (elementary/secondary), (c) region of the state, (d) district and school demographics (e.g., size, poverty, student diversity), and (e) compensation levels?

B. Methodology and Data Sources

We used several data sources to conduct a statewide analysis of the retention and mobility patterns of principals and assistant principals. The primary data source is the personnel data from the state's S-275 dataset. This dataset contains demographic and assignment information about all educators in Washington state. We linked the S-275 data to other state databases, including school demographic data, to form a portrait of principal and assistant principal retention and mobility from existing state datasets. We have access to multiple years of data, enabling us to conduct longitudinal analyses that are comparable over time. Using state administrative datasets, we examine four five-year time periods: 2000-01 to 2004-05, 2005-06 to 2009-10, 2010-11 to 2014-15, and 2011-12 to 2015-16. We also examine changes in demographic characteristics and retention and mobility for each year for the period 2010-11 to 2015-16.²

C. Definition of Terms and Methodological Notes

In this study, we define “principal” as an individual whose primary assignment is designated in the S-275 database as duty root 21 or 23. Similarly, we define “assistant principal”³ as an individual whose primary assignment is designated as duty root 22 or 24. For this study, the principals and assistant principals included in the analyses are described as follows:⁴

Elementary principal (duty root 21) is identified as the administrative head of an elementary or middle school, typically not above grade 8.

Secondary principal (duty root 23) is identified as the administrative head of a secondary school, including junior and senior high schools, typically with any grade span combination of grades 7-12.

² Preliminary S-275 data was used in the final school year (2015-16), as finalized datasets were not yet available at the time of the study.

³ In this report, we refer to assistant principals, instead of vice principals, the term used in the state's S-275 personnel reporting system. We recognize that other titles for this role may be in use, including associate principal.

⁴ We follow the definitions provided in the S-275 Personnel Reporting Handbook (OSPI, 2015) for principals and assistant principals, with exception to the terminology “vice principal.”

Elementary assistant principal (duty root 22) is identified as an individual whose activities support the head administrator of an elementary school or a middle school, typically not above grade 8.

Secondary assistant principal (duty root 24) is identified as an individual whose activities support the head administrator of a secondary school, including junior and senior high schools, typically with any grade span combinations of grades 7-12.

For this study, we identified the assignment for which the principal or assistant principal had the highest Full-time Equivalent (FTE) and linked this record to the corresponding school. In cases where the person's assignment was split equally between two or three buildings, the primary assignment and building was assigned based on the building with the largest student enrollment.

In order to conduct an analysis of changes in assignment, as well as retention and mobility from one year to the next, it was necessary to create both assignment and mobility categories. The assignment categories for principals and assistant principals included the following:

Same primary assignment: the principal or assistant principal remained in the same primary assignment in both the initial school year and also in the subsequent year.

New primary assignment: the individual is no longer primarily a principal or assistant principal.

Assistant principal to principal: the individual changed primary assignment from assistant principal (22 or 24) to principal (21 or 23).

Principal to assistant principal: the individual changed primary assignment from a principal (21 or 23) to an assistant principal (22 or 24).

As part of this study, we provide analyses of both five-year and year-by-year retention and mobility rates for all principals and assistant principals statewide. Our analyses of principal and assistant principal retention and mobility are based on the following categories:

“Stayers”: principals/assistant principals assigned to the same school from one time period to the next.

“Movers in”: principals/assistant principals who moved to other schools in the same district, or changed assignment within the same district.

“Movers out”: principals/assistant principals who moved to other districts, either as a school administrator or in some other role.

“Exiters”: principals/assistant principals who exited Washington state's education system, either temporarily or permanently.⁵

⁵ Exiters may have retired, re-entered the system in subsequent years, left to work in a private school, left Washington to work in another state, or completely left the profession.

D. Study Limitations

While this study examines several aspects of the school administrator workforce, it does not address the issue of principal preparation or the pipeline of prospective new entrants into the administrator workforce. That is, we do not analyze whether there is a sufficient supply of certified school administrators who either currently possess a principal certificate or are in the process of obtaining one. We also do not address whether or not other educators who currently hold a credential to work as a principal or assistant principal are interested in pursuing a career as a school administrator.

The data used for our analyses of the school administrator workforce also has limitations. The state personnel database cannot tell us if principals and assistant principals who leave the Washington state system continue to work as school administrators or educators in another role in other states. During the years of this study, the state personnel database does not include principals or assistant principals who work in private schools in Washington state. Additionally, while this study examines retention and mobility rates over several time periods, it does not address reasons why principals or assistant principals change roles, schools, districts, or leave employment. Observed changes in employment may be due to voluntary or involuntary factors.

E. Report Organization

We first provide a portrait of the number and the demographic characteristics of principals and assistant principals over time. We examine differences by school level (elementary/secondary), region of the state, gender, race/ethnicity, age, compensations levels, and district and school demographics. Next, we examine and compare their five-year and year-by-year retention and mobility rates, as well as career changes over time. Finally, we develop and analyze statistical models that explore factors related to principal and assistant principal retention and mobility.

III. Findings

A. Trends in Statewide Principal and Assistant Principal Characteristics

1) Demographic Characteristics

In the 2015-16 school year, there were 1,928 principals and 1,197 assistant principals working in Washington state. Half of principals (49.8%) and assistant principals (50.2%) are female. However, a larger proportion of female principals (57.0%) and female assistant principals (62.8%) work in elementary schools. Consequently, a larger proportion of male principals (62.5%) and male assistant principals (55.4%) work in secondary schools. Nearly all principals (96.7%) and assistant principals (98.6%) have an advanced degree (Master's or doctorate).

Racial and ethnic diversity

While principals and assistant principals are predominantly White (89.4% and 83.9%, respectively), the assistant principal workforce represents a slightly more diverse population than principals. In addition, 80.6% of elementary assistant principals are White, compared to 84.7% of secondary assistant principals. In particular, larger proportions of assistant principals are Black/African-American (5.6%) and Hispanic (5.8%) as compared to principals (2.8% and 3.3%, respectively). It should be noted that the assistant principal workforce is more diverse than the teacher workforce. In 2015-16, a larger percentage of certificated teachers (89.9%) were White.

The racial and ethnic diversity of the school administrator workforce has made only slight gains during the time period from 2000-01 to 2015-16. In 2000-01, 91% of principals and 86% of assistant principals were White, compared to 89.4% of principals and 83.9% of assistant principals in 2015-16. During this time period, the increase in diversity of the workforce was concentrated among Hispanics, with the percent of Hispanic principals increasing from 1.6% to 3.3%, and the percent of Hispanic assistant principals rising from 4.3% to 5.8%. The percent of Black/African-American principals actually decreased, dropping from 3.7% to 2.8%, and the percent of Black/African-American assistant principals changed from 6.0% to 5.6% during the time period from 2001-01 to 2015-16. No increases were noted for the percent of principals or assistant principals who identified as either Asian/Native Hawaiian/Other Pacific Islander, or Native American/Alaskan Native.

Age and experience

Only 19% of principals are 40 years old or younger, compared with 39% of assistant principals. Not surprisingly, principals have more years of experience working as educators than assistant principals. For example, approximately one quarter of principals (25.5%) have more than 25 years of experience, compared to 13.5% of assistant principals. Table 1 provides additional details.

Table 1: Characteristics of Washington Principals and Assistant Principals in 2015-16

	Principals			Assistant Principals		
	Statewide	Elementary	Secondary	Statewide	Elementary	Secondary
Headcount	1928	1206	781	1197	366	852
Full-Time Equivalent	1840.34	1095.34	745.00	1094.95	320.73	774.22
<i>Gender</i>						
Female	49.8%	57.0%	37.5%	50.2%	62.8%	44.6%
Male	50.2%	43.0%	62.5%	49.8%	37.2%	55.4%
<i>Education</i>						
Bachelor ("B", "G" & "H" categories)	3.0%	2.9%	2.8%	4.5%	5.2%	4.1%
Master	92.9%	92.5%	93.9%	92.6%	92.3%	93.0%
Doctorate	3.7%	4.1%	3.1%	2.0%	1.9%	2.0%
Other ("S" & "V" categories)	0.2%	0.2%	0.0%	0.2%	0	0.2%
Unidentified	0.2%	0.2%	0.3%	0.7%	0.5%	0.7%
<i>Age in 2015-16</i>						
20-30	0.5%	0.6%	0.6%	2.9%	5.2%	1.9%
31-40	18.5%	19.7%	16.1%	35.8%	45.4%	32.4%
41-50	41.6%	40.2%	44.2%	35.4%	30.3%	37.4%
51-60	31.2%	30.8%	31.9%	20.6%	15.6%	22.4%
61+	8.1%	8.6%	7.2%	5.2%	3.6%	5.9%
<i>Ethnicity</i>						
Asian/Pacific Islander/Native Hawaiian	2.6%	3.0%	1.9%	2.4%	4.4%	1.5%
African American	2.8%	2.7%	2.7%	5.6%	5.7%	5.6%
Hispanic	3.3%	3.6%	2.7%	5.8%	6.6%	6.0%
American Indian/Alaskan Native	0.7%	0.7%	0.8%	0.5%	0.8%	0.4%
White (non-Hispanic)	89.4%	88.6%	91.0%	83.9%	80.6%	84.7%
More than one race	1.2%	1.5%	0.9%	1.8%	1.9%	1.8%
<i>Years of Experience as a Certificated Educator</i>						
0-4 years	6.5%	6.4%	7.0%	8.8%	10.9%	7.9%
5-14 years	25.2%	26.0%	24.1%	43.1%	54.4%	39.0%
15-24 years	42.9%	41.7%	44.8%	34.8%	25.4%	38.4%
25 yrs or more	25.5%	26.0%	24.2%	13.5%	9.3%	15.0%

NOTE: Preliminary S275 duty roots 21, 22, 23 or 24 with FTE designation greater than 0 in given year.

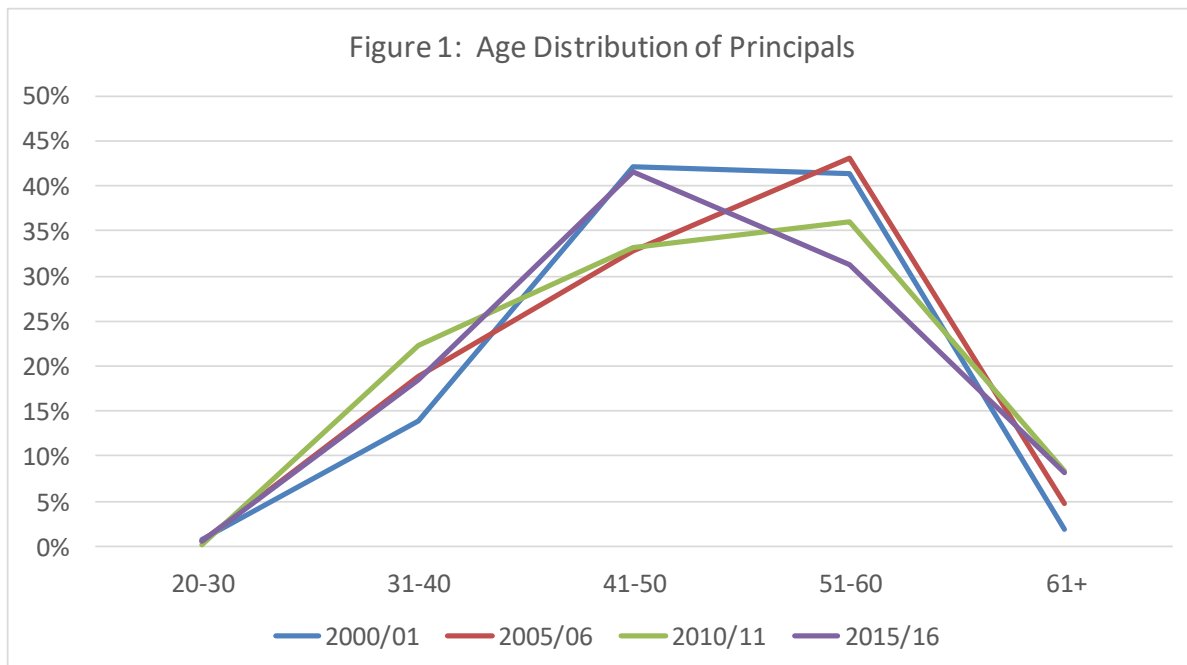
Because some administrators have multiple duty roots, the headcounts of principals and APs do not sum to the total headcount.

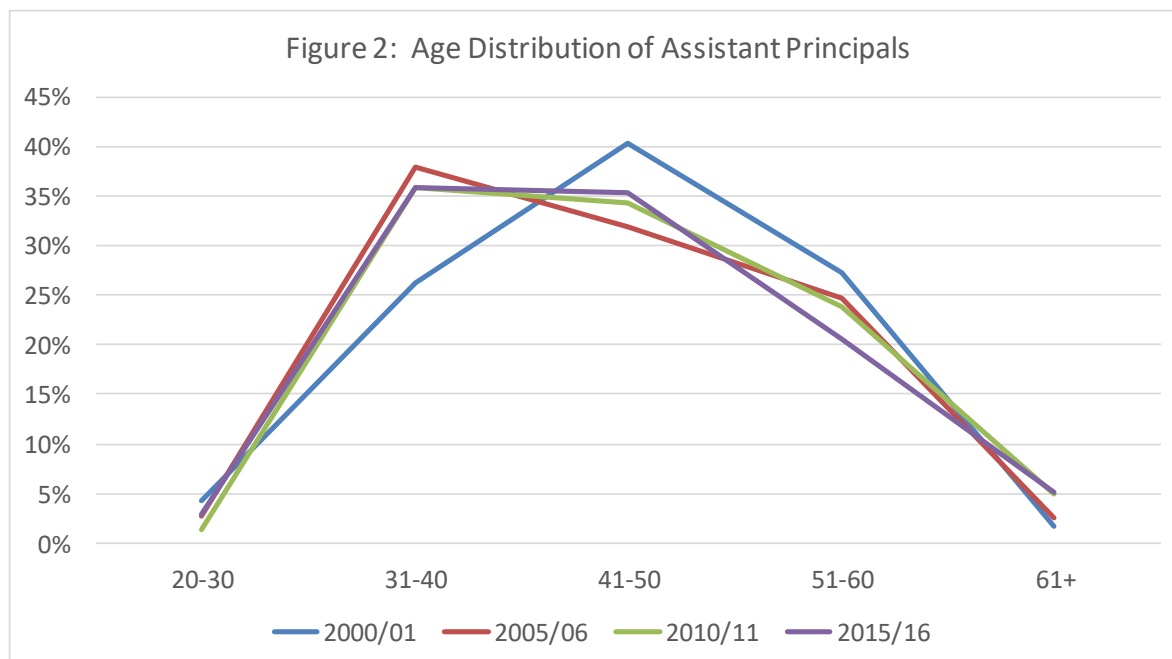
Gender differences

We examined changes in the demographic characteristics of principals and assistant principals for the time period from 2000-01 to 2015-16. During this time, the overall proportion of female principals increased from 47.2% to 49.8%. However, large gender differences appear when examining school level. In 2000-01, more than two-thirds of secondary school principals

(67.3%) were male. This proportion has dropped slightly over time, with males comprising 62.5% of secondary principals in 2015-16 (see Appendix A). The increase in the proportion of female school administrators was much more pronounced for assistant principals than principals. The proportion of female assistant principals increased from 39.8% to 50.2%. As is the case for principals, a larger proportion of female assistant principals work in elementary schools, and this proportion has increased over time. In the 2000-01 school year, 58.3% of elementary assistant principals were female, and in 2015-16, that percentage increased to 62.8% (see Appendix B).

In examining the time period from 2000-01 to 2015-16, we find a shift in the age distribution of principals and assistant principals in Washington. There is an increase in the percentage of principals and assistant principals who are over the age of 60. The percent of principals who are older than 60 was 1.9% in 2000-01, and this has increased to 8.1% in 2015-16 (see Figure 1). The percentage of assistant principals over age 60 also increased, but to a lesser extent, from 1.8% to 5.2% (see Figure 2). The percent of elementary principals over age 60 is slightly higher than secondary principals, while the percent of secondary assistant principals over age 60 is slightly higher than elementary assistant principals. Not surprisingly, the percent of principals and assistant principals between the ages of 51 and 60 has decreased during this same time period.





Comparisons to national statistics

We find some differences between national demographic data and data for principals in Washington state. A national study using data derived from the Schools and Staffing Survey provides demographic information about principals nationwide (Hill, Ottem, & DeRoche, 2016). In comparing 2011-12 data (the most recent data used in the study), we find that Washington principals were less racially and ethnically diverse than principals nationwide. Nationally, 80% of public school principals in 2011-12 were White, compared to 88% in Washington state. In the same year, 10% of principals nationally were Black, compared to 3% in Washington, and 7% were Hispanic, compared to 3% in Washington. Nationally, in 2011-12, more than half of public school principals were female (52%), compared to 48% for principals in Washington state. In 2011-12, the average age of all public school principals in Washington state was 51.5 years, which was above the national average of 48 years.

2) Growth Rates of Principals and Assistant Principals

Principals

As student enrollments and the number of schools have increased statewide in recent years, so has the number of school administrators in the workforce. When examining the time period from 2010-11 to 2015-16, we find that the number of principals increased 3%, from 1,870 to 1,928 (as measured by headcount). The principal full-time equivalent (FTE) increased from 1,768 FTE to 1,840 FTE (an increase of 4%). During this same time period, student enrollment increased by 4%. This difference in the rate of growth between headcount and FTE is likely explained by an increase in FTE for those positions that may have been part-time in 2010-11, but increased in FTE by 2015-16.

Assistant principals

We find that the increase in the number of assistant principals is much greater than the increase in the number of principals during the six year time period. The number of assistant principals (as measured by headcount) increased from 925 in 2010-11 to 1,197 in 2015-16. The assistant principal FTE increased from 850 to 1,095 (an increase of 29%). The vast majority of the increase in assistant principals is at the elementary level, where the number of elementary assistant principal positions more than doubled, from 120 FTE to 321 FTE over the six-year time period (an increase of 168%). That said, it is important to note that the vast majority of assistant principals work in secondary schools. In 2010-11, more than four-fifths of all assistant principals (86%) worked in secondary schools. By 2015-16, that proportion decreased to 71% (see Appendix B).

Rate of growth

The growth in the number of principals and assistant principals can also be viewed by examining the ratio between the number of students and the number of principals and assistant principals. Table 2 displays this information for the six-year time period. In Table 2, we can see that the ratio of students per principal in 2015-16 is quite similar to the ratio in 2010-11, at 562 compared to 557 students per principal (as measured by headcount). However, the ratio of students per assistant principal dropped from 1,126 students per assistant principal in 2010-11 to 906 students. This is to be expected, given the increase in the number of assistant principals during this time period.

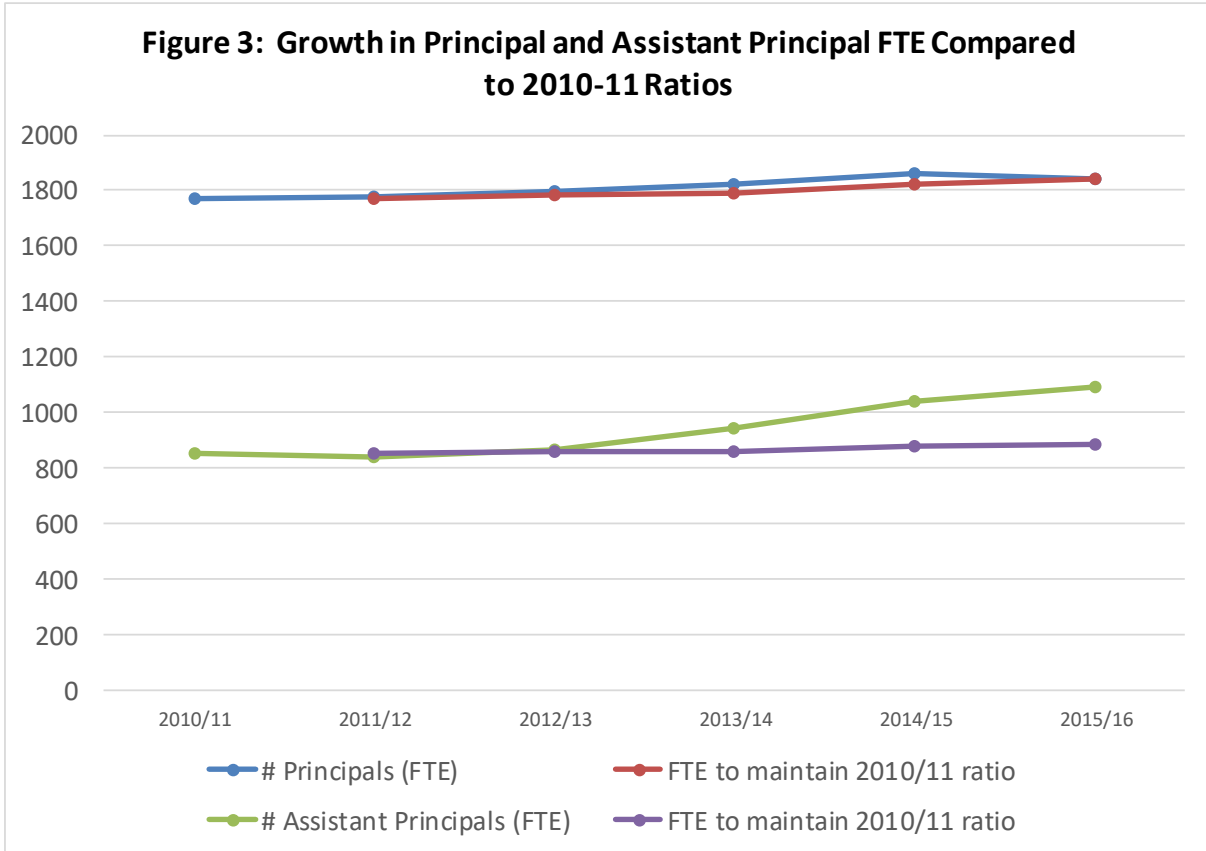
Table 2: Students Per Principal and Assistant Principal 2010-11 to 2014-15

	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16
Student Enrollment	1,041,892	1,043,536	1,050,900	1,056,809	1,075,107	1,084,359
# Principals (Headcount)	1870	1907	1871	1892	1930	1928
Students per Principal	557.16	547.21	561.68	558.57	557.05	562.43
Headcount to maintain 2010/11 ratio		1873	1886	1897	1930	1946
# Assistant Principals (Headcount)	925	925	920	1002	1100	1197
Students per Assistant Principal	1126.37	1128.15	1142.28	1054.70	977.37	905.90
Headcount to maintain 2010/11 ratio		926	933	938	954	963
# Principals (FTE)	1767.55	1774.9	1799.57	1824.04	1861.91	1840.34
Students per Principal FTE	589.46	587.94	583.97	579.38	577.42	589.22
FTE to maintain 2010/11 ratio		1770.34	1782.83	1792.86	1823.90	1839.59
# Assistant Principals (FTE)	849.59	841.88	867.4	943.25	1042.54	1094.95
Students per AP FTE	1226.35	1239.53	1211.55	1120.39	1031.24	990.33
FTE to maintain 2010/11 ratio		850.93	856.94	861.75	876.67	884.22
All school administrators (Headcount)	2727	2735	2778	2877	3013	3114
Students per school administrator	382.07	381.55	378.29	367.33	356.82	348.22
Headcount to maintain 2010/11 ratio		2731	2751	2766	2814	2838
All school administrators (FTE)	2617.14	2616.78	2666.97	2767.29	2904.45	3010.71
Students per school admin FTE	398.10	398.79	394.04	381.89	370.16	360.17
FTE to maintain 2010/11 ratio		2621.27	2639.77	2654.61	2700.57	2723.81

NOTE: Preliminary S275 data is used for 2015-16.

Because some administrators have multiple duty roots, the headcounts of principals and APs do not sum to the total headcount.

Drawing from the data provided in Table 2, we compare the actual rate of growth of principals and assistant principals during the time period from 2010-11 to 2015-16 with the rate of growth necessary to maintain the same ratio of students per administrator as was the case in 2010-11. Figure 3 displays this data.



As can be seen in Figure 3, over time, the ratio of students per principal FTE remains essentially constant as compared with the 2010-11 ratio. However, for assistant principals, the growth in FTE exceeds the rate of growth needed to maintain the 2010-11 ratio of students per FTE assistant principal, with the increase beginning in 2013-14 and increasing even further in 2014-15 and 2015-16. It should be noted that the implementation of the state’s Teacher and Principal Evaluation Program (TPEP) coincides with the increase in the number of assistant principals.

3) Placement of Elementary Assistant Principals

School size and region

Given the growth in elementary school assistant principals, we examined the characteristics of schools in which they worked. Not surprisingly, the majority of elementary assistant principals work in larger elementary schools. In 2013-14 (the first year of the sizeable increase in the number of assistant principals), the vast majority of elementary assistant principals (94%) worked in schools with enrollments of 500 students or greater, and nearly half (48%) were located in schools with at least 600 students. In 2014-15, nearly half of elementary assistant principals (45%) worked in schools in the Central Puget Sound (ESD 121).

School demographics

In each of the five years examined (2010-11 to 2014-15), larger proportions of elementary school assistant principals worked in schools with the highest proportion of students in poverty, students of color, and students enrolled in the Transitional Bilingual Instructional Program (TBIP), compared to the proportion of principals working in the same schools. For example, in 2013-14, one third (33%) of elementary assistant principals worked in schools where the percent of students enrolled in the Free or Reduced Price Lunch Program (FRPL) was 75% or greater, while only 19% of the state's elementary principals worked in these schools. Also in 2013-14, 8% of elementary assistant principals worked in schools where student enrollment in TBIP was 50% or greater, compared to 3% of principals working in the same schools. More than one third (35%) of elementary assistant principals worked in schools where students of color comprised at least 75% of all students in the school, compared to 12% of principals. Thus, it appears that elementary assistant principals are being assigned to schools with greater needs. Table 3 provides details about the characteristics of schools in which elementary principals and assistant principals worked in 2013-14 and 2014-15. Appendix C provides the same data for additional years.

Table 3: School Characteristics of Elementary Principals and Assistant Principals

	2013-14				2014-15			
	Elementary Principals		Elementary AP		Elementary Principals		Elementary AP	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Number of Principals	1167		203		1177		282	
Region of the State								
Western WA ESD 112 (Southwest)	105	9%	26	13%	106	9%	29	10%
Western WA ESD 113 (Capital Region)	92	8%	9	4%	93	8%	16	6%
Western WA ESD 114 (Olympic)	48	4%	3	1%	52	4%	5	2%
Western WA ESD 189 (Northwest)	178	15%	15	7%	170	14%	35	12%
Central Puget Sound ESD 121	429	37%	93	46%	435	37%	128	45%
Eastern WA ESD 101 (Spokane)	123	11%	8	4%	123	10%	9	3%
Eastern WA ESD 105 (Yakima)	65	6%	28	14%	66	6%	35	12%
Eastern WA ESD 123 (Southeast)	74	6%	17	8%	75	6%	18	6%
Eastern WA ESD 171 (North Central)	53	5%	4	2%	55	5%	5	2%
Other or not reported	0	0%	0	0%	2	0%	2	1%
Poverty of School*								
0-25% FRPL	208	18%	36	18%	219	19%	50	18%
26-49% FRPL	346	30%	50	25%	337	29%	73	26%
50-75% FRPL	361	31%	44	22%	384	33%	77	27%
75+% FRPL	216	19%	66	33%	213	18%	74	26%
Not reported/missing	36	3%	7	3%	24	2%	8	3%
Student Race/Ethnicity								
0-25% students of color	332	28%	35	17%	309	26%	44	16%
26-49% students of color	455	39%	54	27%	452	38%	76	27%
50-74% students of color	206	18%	36	18%	237	20%	69	24%
75+% students of color	138	12%	71	35%	155	13%	85	30%
Not reported/missing	36	3%	7	3%	24	2%	8	3%
School Enrollment								
1-199	60	5%	4	2%	69	6%	4	1%
200-399	326	28%	14	7%	322	27%	18	6%
400-499	309	26%	28	14%	298	25%	43	15%
500-599	265	23%	50	25%	270	23%	79	28%
600-799	153	13%	85	42%	174	15%	114	40%
800-999	17	1%	13	6%	17	1%	15	5%
1000+	1	0%	2	1%	3	0%	1	0%
Not reported/missing	36	3%	7	3%	24	2%	8	3%
Transitional Bilingual								
0-25% TBIP	927	79%	115	57%	932	79%	172	61%
26-49% TBIP	62	5%	63	31%	172	15%	81	29%
50-75% TBIP	37	3%	17	8%	42	4%	19	7%
75+% TBIP	5	0%	1	0%	7	1%	2	1%
Not reported/missing	36	3%	7	3%	24	2%	8	3%

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

Characteristics represent individuals' primary buildings (highest FTE, or largest enrollment if equal FTE).

4) Compensation Levels of Principals and Assistant Principals

As would be expected, principal compensation⁶ is higher than that of assistant principals. However, compensation differences also exist by school level. Secondary school principals have higher average⁷ compensation levels than elementary school principals, and this is also the case for assistant principals. When examining both certificated base salaries and total final salaries as reported in the S-275 dataset, full-time⁸ principals and assistant principals working in the Central Puget Sound area (ESD 121) have higher average compensation levels than those in Eastern Washington or in other Western Washington areas of the state. We also identify a general pattern with respect to district property wealth and the average salaries of principals and assistant principals. Using the 14% levy rate⁹ as a means for examining property wealth, we find that school administrators working in districts with lower property wealth (i.e., a higher 14% levy rate) have lower salaries.¹⁰

We find no notable differences in compensation between males and females when examining salaries of all principals and assistant principals, and when examining gender differences for elementary and secondary principals. As would be expected, there are differences when examining compensation levels and age, with older administrators receiving higher average salaries. Table 4 provides details about the average certificated base salaries and the average total final salaries for full-time principals and full-time assistant principals in 2014-15.

⁶ In this study, we use both the certificated base salary and the total final salary as reported in the S-275 personnel data as proxies for principal and assistant principal compensation.

⁷ We use both the mean and the median to examine average salaries.

⁸ We limit this analysis to include only those principals and assistant principals who have full-time assignments as a principal or assistant principal. This removes school administrators who work part-time or who work part-time in other types of assignments (e.g., classroom teacher, superintendent) in addition to their assignment as a principal or assistant principal.

⁹ The 14% levy rate is the tax rate needed to collect a levy equal to 14% of the district's levy base. It is a computational tax rate used to determine if districts receive Local Effort Assistance (LEA) from the state. LEA is intended to help fund districts with above average local tax rates due to low property valuations.

¹⁰ We do note one exception. When using total final salary, we find one instance of higher average salaries for districts whose 14% levy rate is between 1.50 and 1.99. This difference does not appear when examining certificated base salaries (see Table 4).

Table 4: Salary Data for Full-Time Principals and Assistant Principals in 2014-15*				
	Certificated Base Salary		Total Final Salary	
	Median	Mean	Median	Mean
All principals/assistant principals	106,400	105,500	112,400	111,400
<i>Gender</i>				
Females	107,100	105,600	112,000	111,100
Males	105,800	105,500	113,000	111,700
<i>Duty root in primary building</i>				
Duty root 21: Elementary Principal	107,900	106,300	115,500	112,600
Duty root 22:Elementary AP	92,910	91,480	97,580	94,860
Duty root 23: Secondary Principal	112,700	111,100	120,300	117,500
Duty root 24: Secondary AP	104,000	103,400	109,400	108,800
<i>Region</i>				
ESD 121 - Puget Sound	112,500	111,600	120,200	119,200
Other W. WA (112, 113, 114, 189)	104,600	104,900	109,700	109,300
E. WA (101, 105, 123, 171)	98,430	97,110	104,000	102,200
<i>14% Levy Rate</i>				
< 1.50	112,300	109,800	116,600	113,300
1.50 - 1.99	109,900	108,700	117,600	116,400
2.00 - 2.50	105,600	104,700	111,600	111,300
> 2.50	99,060	98,920	105,800	105,200
<i>Principal Age</i>				
20-30	95,640	96,580	100,500	100,700
31-40	102,400	102,000	108,100	107,200
41-50	107,600	106,600	113,300	112,000
51-60	107,800	107,100	114,700	113,800
61+	107,700	107,200	116,100	114,600

**This analysis is limited to individuals who have an assignment as 1.0 FTE as duty root 21, 22, 23 or 24.*

B. Statewide Retention and Mobility of Principals and Assistant Principals

In examining retention and mobility, we have chosen to use both five-year trends and year-by-year analyses of the administrator workforce. The five-year trend data provide a broader look at the stability of the overall workforce. The year-by-year analyses provide more detail and allow us to gauge whether more pronounced patterns of movement occur in specific years. Both the five-year and the year-by-year analyses are cohort-based. That is, we identify all principals and

assistant principals in a given year, and then examine their role in the workforce in the subsequent year.

1) Five-Year Statewide Retention and Mobility Trends

Principals

We examined the five-year retention and mobility rates for all individuals with a primary assignment as a principal or assistant principal, either full- or part-time. When looking at the most recent time period (2011-12 to 2015-16), we find that after five years, 41% of principals remain in the same school (stayers), 24% remain in the same district (movers in), and 14% percent move to another district in Washington state (movers out). After 5 years, approximately one-fifth (21%) of principals are no longer working in Washington state as a K-12 public school educator (exiters). When comparing retention rates for principals over three other five-year time periods, we find strikingly similar trends. One exception is that for the time period from 2000-01 to 2004-05, a somewhat higher proportion of principals were exiters (26%) and a lower proportion were movers in (20%).¹¹ See Table 5 for details.

Assistant principals

Five-year retention and mobility trends for assistant principals vary from those of principals. In general, slightly lower proportions of assistant principals remain in the same school and higher proportions move to other schools in the same district. This is not surprising, as some assistant principals became principals during the time periods examined. We also find that the proportion of exiters is lower for assistant principals. When examining the most recent time period (2011-12 to 2015-16), 38% of assistant principals remained in the same school, and 31% moved to another school in the same district. This compares to 41% of principals who were stayers, and 24% who moved within the district. A higher proportion of assistant principals moved to another district (17%) and a lower proportion were exiters (15%), compared to principals (14% and 21%, respectively). We note that while African-Americans represented 7.2% of the assistant principal workforce in 2011-12, they comprise 17.4% of the exiters in 2015-16. We also find that during this time period, nearly a third (31%) of assistant principals became principals. Table 5 provides details about five-year retention and mobility rates for principals and assistant principals for four time periods, and includes average rates across the four time periods under study.

¹¹ It should be noted that some principals who moved within the district also may have a changed assignment (e.g., a move from a principal to a central office administrator). These types of assignment changes are discussed in section III.B.4.

Table 5: Five Year Retention and Mobility Rates for Principals and Assistant Principals for Four Time Periods (2000-2015)

5 Year Period	Stayers		Movers In		Movers Out		Exiters	
	Principals	APs	Principals	APs	Principals	APs	Principals	APs
2000-01 to 2004-05	41.1%	37.9%	19.7%	27.5%	13.7%	16.1%	25.5%	18.5%
2005-06 to 2009-10	42.8%	37.9%	23.6%	31.6%	11.2%	15.6%	22.5%	14.8%
2010-11 to 2014-15	41.4%	40.2%	23.9%	30.8%	14.0%	14.4%	20.7%	14.7%
2011-12 to 2015-16	41.0%	37.8%	24.4%	30.5%	14.0%	17.0%	20.6%	14.7%
Average rate	41.6%	38.5%	22.9%	30.1%	13.2%	15.8%	22.3%	15.7%

The average percent of principals staying in their same schools after five years (42%) is substantially lower than the retention rate for teachers, who have an average retention rate of 59% after five years.¹² Principals and teachers have similar average rates of exiting the workforce after five years (22% and 20%, respectively).

2) Year-by-Year Retention and Mobility: 2010-11 to 2014-15

Next we present analyses of annual retention and mobility rates of principals and assistant principals. The year-by-year analysis provides more detail about principal movement and why there may be confusion regarding how retention and mobility statistics are sometimes reported. It is important to note that since the year-by-year data is not cumulative, attempts to sum it across time periods would lead to incorrect interpretations.

Principals

We calculated annual retention and mobility rates for principals and assistant principals for each of five years, from 2010-11 to 2015-16. On average, for these five years, 81% of principals remained in the same school from one year to the next, 9% moved to another school within the same district, 4% moved to another district and 6% exited the Washington state education system. Overall, no large differences exist between the yearly retention and mobility rates of elementary and secondary principals. We note that the percent of elementary principals who move to another district has increased slightly over the time period examined, from 2.5% in 2010-11 to 5.1% in 2014-15. This increase in movers out of district was also found for secondary principals, from 4.1% to 6.2%. There is little variation in the percent of stayers, movers in, and exiters over the five years for both elementary and secondary principals. Table 6 provides details for each of these years.

¹² For additional details about teacher retention and mobility, see Elfers, Plecki, and Van Windekens, 2017.

Table 6: Annual Retention and Mobility Rates for Elementary and Secondary Principals

School Year	Stayers			Movers In			Movers Out			Exiters		
	All	Elem	Second	All	Elem	Second	All	Elem	Second	All	Elem	Second
2010-11 to 2011-12	82.0%	83.5%	79.7%	8.6%	7.4%	10.5%	3.1%	2.5%	4.1%	6.3%	6.7%	5.7%
2011-12 to 2012-13	81.9%	81.1%	82.0%	9.4%	10.0%	9.9%	3.1%	3.0%	3.3%	5.6%	5.9%	4.8%
2012-13 to 2013-14	80.5%	80.4%	80.1%	9.0%	9.0%	9.3%	4.0%	4.1%	4.1%	6.5%	6.4%	6.4%
2013-14 to 2014-15	79.3%	78.3%	80.7%	10.6%	10.5%	10.9%	4.5%	5.0%	4.0%	5.6%	6.2%	4.4%
2014-15 to 2015-16	80.4%	80.6%	78.8%	8.1%	8.2%	8.6%	5.4%	5.1%	6.2%	6.1%	6.0%	6.4%
Average rate	80.8%	80.8%	80.3%	9.1%	9.0%	9.8%	4.0%	3.9%	4.3%	6.0%	6.2%	5.5%

Assistant principals

As compared to principals, assistant principals have higher annual rates of mobility and slightly lower rates of exiting. On average, over the five years examined, 13.7% of assistant principals moved within the district and 6.1% moved out of district, compared to 9.1% and 4.0% for principals, respectively. Also, on average, 4.0% of assistant principals were exiters, compared to 6% of principals.

While retention and mobility rates of elementary and secondary principals are quite similar, a different picture emerges when examining assistant principals by school level. Secondary assistant principals have higher rates of staying in the same school as compared to elementary assistant principals. On average, 78.7% of secondary assistant principals remain in the same school, while only 65.4% of elementary assistant principals are stayers. Elementary assistant principals also have higher rates of moving within the district. On average, 22.5% of elementary assistant principals are movers in, compared to 11.7% for secondary assistant principals. We note that in two of the time periods examined, 2011-12 to 2012-13 and 2012-13 to 2013-14, the percentage of elementary assistant principals who moved within the district was notably higher than in the other three years, at 26.5% and 27.2%, respectively. This compares to 11.3% and 10.1% for secondary assistant principals for those same years. Elementary assistant principals also have slightly higher rates of moving to another district as compared to secondary principals. On average, 8.3% of elementary assistant principals move to another district, compared to 5.6% of secondary assistant principals. No evident pattern emerges when comparing the percent of elementary and secondary assistant principals who exited the Washington state system. The difference in the average percent of exiters is quite similar between elementary and secondary principals, with exiting rates of 4.5% and 4.1%, respectively. Table 7 provides data comparing retention and mobility rates of elementary and secondary assistant principals.

Table 7: Annual Retention and Mobility Rates for Elementary and Secondary Assistant Principals

School Year	Stayers			Movers In			Movers Out			Exiters		
	All	Elem	Second	All	Elem	Second	All	Elem	Second	All	Elem	Second
2010-11 to 2011-12	77.9%	69.1%	79.6%	14.1%	21.5%	12.8%	3.8%	5.4%	3.5%	4.2%	4.0%	4.1%
2011-12 to 2012-13	77.6%	62.3%	80.7%	13.7%	26.5%	11.3%	5.5%	8.6%	4.7%	3.2%	2.6%	3.3%
2012-13 to 2013-14	75.9%	60.8%	78.5%	12.8%	27.2%	10.1%	6.4%	8.2%	6.2%	4.9%	3.8%	5.2%
2013-14 to 2014-15	74.0%	65.4%	76.6%	14.3%	18.4%	13.0%	7.8%	10.6%	7.0%	4.0%	5.5%	3.5%
2014-15 to 2015-16	75.9%	69.5%	78.1%	13.4%	19.0%	11.5%	7.0%	8.5%	6.5%	3.7%	3.1%	3.9%
Average rate	76.3%	65.4%	78.7%	13.7%	22.5%	11.7%	6.1%	8.3%	5.6%	4.0%	3.8%	4.0%

The average yearly retention rates of elementary assistant principals who stay in their same school (65.4%) was substantially lower than that of elementary principals (80.8%). This large difference was not noted at the secondary level. On average, 80.3% of secondary principals are stayers, compared to 78.7% of secondary assistant principals.

3) Comparisons to National Statistics

As described earlier in this report, a national analysis of principal retention and mobility was conducted for the years from 2011-12 to 2012-13 (Goldring & Taie, 2014). When comparing these national statistics to those for public school principals in Washington state, we find that the percent of Washington state principals who stayed in the same school (81.9%) was higher than the national rate of 77.4%. The percent of Washington principals who exited (5.5%) was lower than the national statistic of 11.5%.¹³ The national study also found that 54% of public school principals who changed schools moved to a school within the same district. In Washington state, 75% of principals who changed schools during this same time period moved to a school in the same district.

When comparing the characteristics of Washington principals who were stayers from 2011-12 to 2012-13 to national statistics, we find a few notable differences. For this time period, national averages indicate a slightly lower rate of secondary principals who are stayers compared to elementary principals. This difference is not seen for Washington principals. We also note that there is a much lower rate of stayers in Washington for principals in schools enrolling fewer than 100 students (59%), compared to the national average of 76%. Finally, a higher proportion of Washington principals (84%) stay in schools where the poverty rate exceed 75%, compared to the national average of 73%. Table 8 provides comparison statistics.

¹³ It should be noted that the national statistics have some missing data, making direct comparisons to Washington’s “movers in” and “movers out” not possible.

**Table 8: Selected Characteristics of Principal Stayers
Washington State Compared to National Averages: 2011-12**

	Stayers (2011-12 to 2012-13)	
	Principals in Washington	National Averages*
All principals	81.9%	77.4%
<i>Age</i>		
Less than 45 years	83.8%	79.2%
45-54 years	83.5%	81.6%
55 years or more	77.9%	69.7%
<i>Gender</i>		
Male	82.4%	77.1%
Female	81.4%	77.8%
<i>Race/ethnicity</i>		
Hispanic or Latino, of any race	77.0%	73.6%
White (not Hispanic/Latino)	82.4%	78.6%
Black (not Hispanic/Latino)	81.8%	72.2%
All other races	77.2%	72.9%
<i>School level</i>		
Elementary	81.1%	78.2%
Secondary	82.0%	76.8%
<i>Student enrollment</i>		
Less than 100	59.2%	76.2%
100-199	80.7%	75.6%
200-499	81.1%	76.5%
500-749	84.5%	78.1%
750-999	81.4%	80.3%
1,000 or more	85.7%	79.0%
<i>%FRPL in School</i>		
0-34%	80.5%	80.0%
35-49%	83.4%	78.6%
50-74%	81.2%	78.5%
75% or more	83.8%	72.6%

*Source: Goldring & Taie, 2014

4) Career Shifts of Principals and Assistant Principals

It is not uncommon for principals and assistant principals to change roles over the course of their careers. Not surprisingly, the most common career move is from assistant principal to principal. We calculated the year-by-year changes in administrative roles over the period from 2010-11 to 2014-15, and found that, on average, nearly one fifth of elementary assistant principals (19.0%)

and one tenth (10.3%) of secondary school assistant principals became principals each year.¹⁴ When looking at four different five-year time periods, we found that, on average, 40% of elementary assistant principals and 30% of secondary assistant principals became principals five years later. Assistant principals also move into central office roles, but at a much lower rate than those who become principals. On average, 2.5% of elementary assistant principals and 2.1% of secondary assistant principals moved to central office roles¹⁵ from one year to the next. When looking at career shifts after five years, we found that, on average, 4% of elementary assistant principals and 6% of secondary assistant principals shifted to central office roles after five years (see Table 9).

When looking at career shifts for principals, we find that only a small portion of principals moved to the Superintendency from one year to the next (0.2% for elementary principals and 0.6% for secondary principals). On average, over a five-year period, 0.8% of elementary principals and 2.5% of secondary principals became Superintendents. Larger proportions of principals moved to other central office roles.¹⁶ On average, 3.5% of elementary principals and 4.8% of secondary principals moved to other central office roles from one year to the next. When examining five-year time periods, we found that, on average, 9.3% of elementary principals and 12.6% of secondary principals moved to central office roles other than Superintendent after five years.

When looking at four different five-year time periods, we found that there was an increase in the percent of principals moving into other central office roles during the more recent time periods examined. For example, the percent of elementary principals moving into other central office positions increased from 6.3% for the period 2000-01 to 2004-05 to 12.7% for the period 2011-12 to 2015-16. There was also an increase for secondary principals, but to a lesser extent, from 11.0% to 14.4%, respectively. Table 9 provides details about these career moves.

¹⁴ In this analysis, we included only those individuals with 1.0 FTE.

¹⁵ Central office roles include duty roots 11 (Superintendent), 12 (Deputy/Assistant Superintendent), and 13 (Other District Administrator).

¹⁶ Here we define other central office roles as Deputy/Assistant Superintendent (duty root 12) and Other District Administrator (duty root 13).

Table 9: Changes in Administrator Roles for Principals and Assistant Principals								
Year-by-Year Period	AP to Principal		AP to Central Office Role		Principal to Superintendent		Principal to Other Central Office Role	
	Elem	Second	Elem	Second	Elem	Second	Elem	Second
2010-11 to 2011-12	20.1%	8.9%	3.2%	2.1%	0.3%	1.0%	2.0%	5.1%
2011-12 to 2012-13	19.9%	10.0%	3.4%	2.3%	0.1%	0.2%	3.2%	4.2%
2012-13 to 2013-14	21.5%	11.6%	3.7%	1.2%	0.3%	0.3%	3.7%	5.7%
2013-14 to 2014-15	19.8%	11.3%	0.7%	2.3%	0.1%	1.3%	4.6%	5.1%
2014-15 to 2015-16	15.6%	9.7%	1.4%	2.4%	0.3%	0.4%	3.9%	3.9%
Yearly Average rate	19.4%	10.3%	2.5%	2.1%	0.2%	0.6%	3.5%	4.8%
Five-Year Period								
2000-01 to 2004-05	44.7%	26.0%	5.2%	5.3%	0.8%	2.4%	6.3%	11.0%
2005-06 to 2009-10	41.2%	31.9%	4.4%	7.0%	0.5%	3.2%	6.9%	10.9%
2010-11 to 2014-15	38.5%	29.0%	2.1%	4.7%	1.1%	2.6%	11.4%	14.2%
2011-12 to 2015-16	35.9%	29.9%	3.4%	6.7%	0.8%	1.9%	12.7%	14.4%
5-Year Average rate	40.1%	29.2%	3.8%	5.9%	0.8%	2.5%	9.3%	12.6%

C. Factors Influencing Principal Retention and Mobility

We investigated the relationship between principal retention and mobility and a number of continuous and categorical variables of interest (e.g., district-, school- and individual-level characteristics). The focal question for this work is “What variables consistently explain principals’ retention and mobility patterns in Washington state?”

Logistic regressions were developed to predict the probability of a principal either 1) remaining as a principal in the same district, or 2) exiting employment in Washington state over the five-year time period from 2011-12 to 2015-16. For purposes of interpretation, the results of these regressions are presented as odds ratios in Tables 10 and 11. Coefficients and standard errors are presented in Appendices D and E.

Odds of remaining in the same district

Results indicate that male principals are more likely than female principals (1.2 times as likely) to remain in the same district as a principal (see Table 10). On the other hand, secondary principals are less likely than elementary principals (0.78 times as likely) to remain in the same district. The probability that a principal stays in a district increases with age until about age 45,

then decreases; a 45-year-old principal is 1.6 times as likely to remain as a 35-year-old, while a 55-year-old principal is only 0.8 times as likely to remain as a 35-year-old.

Table 10: Five-Year Principal Retention in District, 2011-12 to 2015-16

Predictor	Remain principal in same district (odds ratio)
Educator characteristics	
Age (baseline age 35):	
45	1.64***
55	0.80***
Male	1.21*
School characteristics	
Secondary level	0.78**

*** $p < .01$; ** $p < .05$; * $p < .1$

Odds of exiting the workforce

As is the case for principals staying in their schools, the odds of a principal exiting the profession also depend on age. A 45-year-old principal is slightly less likely to exit than a 35-year-old (0.91 times as likely), while a 55-year-old principal is almost 5 times as likely to exit as a 35-year-old. We also found that the odds of a principal exiting the profession increase as the student poverty level in the building increases, but the odds of exiting decrease as the percent of students of color in the building increases (see Table 11). For a unit change in the percent free and reduced price lunch eligibility, the odds of a principal exiting are expected to *increase* by a factor of 1.01. However, for a unit change in percent of students of color, the odds of a principal exiting are expected to *decrease* by a factor of 0.99.

Table 11: Five-Year Principal Exit from Washington System, 2011-12 to 2015-16

Predictor	Exit WA system (odds ratio)
Educator characteristics	
Age (baseline age 35):	
45	0.91***
55	4.84***
School characteristics	
Percent students of color	- 0.99**
Percent free and reduced price lunch eligibility	1.01**

*** $p < .01$; ** $p < .05$; * $p < .1$

Other possible factors that might predict principal retention were included in the numerous models that were developed and tested. Region of the state, race/ethnicity of principals, and school enrollment size were not significant predictors of principal retention in any of the models tested.

IV. Summary and Discussion

This study examines the trends in the characteristics, retention, mobility, and career paths of Washington's public school principals and assistant principals. In this section we summarize our main findings and discuss several policy implications. We also identify potential areas for further inquiry.

Growth in proportion of female school administrators and changes in age

A number of changes in the demographic characteristics of school administrators have occurred over the past fifteen years. Females increasingly comprise a larger proportion of the principal and assistant principal workforce, with a higher percentage of females working in elementary schools. Nearly all principals and assistant principals hold advanced degrees. Over the past 15 years, there has been a steady increase in the proportion of school administrators who are older than 60 years, with a greater increase among principals as compared to assistant principals. At the same time, there are increases in the proportion of school administrators in their 30s. Estimating future retirement rates and future supply/demand for principals was outside the scope of this study, but deserves further examination.

Lack of racial and ethnic diversity

The racial and ethnic diversity of the school administrator workforce has made only slight gains since 2000-01, and the vast majority of principals and assistant principals are White. The small increase in the diversity of the workforce was concentrated among Hispanics, while the percent of Black/African-American school administrators has decreased slightly over the past 15 years. No increases are noted in the percentages of principals or assistant principals who identify as Asian/Native Hawaiian/Other Pacific Islander, or American Indian/Alaskan Native.

Growth in the number and proportion of assistant principals

As student enrollments have increased statewide, so has the number of school administrators in the workforce. While the number of school principals has essentially increased in proportion to the growth in student enrollment, the increase in the number of assistant principals is much greater. The vast majority of the increase in assistant principals is at the elementary level, with the number of elementary assistant principals more than doubling in recent years. An examination of the placement of elementary school principals indicates that higher proportions of elementary assistant principals are working in schools with higher enrollments, higher proportions of students enrolled in the Free or Reduced Price Lunch Program, and higher proportions of students enrolled in the Transitional Bilingual Instructional Program. Thus, it appears that elementary assistant principals are being assigned to schools with greater needs.

Compensation differences by level, role and district property wealth

As would be expected, principal compensation is higher than that of assistant principals. However, compensation differences also occur by school level. Secondary school principals receive higher compensation than elementary principals, and this is also the case for assistant principals. There are no notable differences in compensation between males and females working in the same roles. Generally speaking, compensation levels are higher in the Central Puget Sound region (ESD 121) compared to other areas of the state. There is also a general pattern with respect to district property wealth and compensation, as school administrators working in districts with lower property wealth often have lower levels of compensation.

Five-year retention and mobility rates stable over time

The retention and mobility rates of principals are quite consistent over time. When examining retention and mobility after five years, we find that on average, 22% of principals exited the Washington state system, including those who may have retired. On average, 42% of principals remain in their same schools after five years, while an additional 23% remain in their same districts. The average percent of principals staying in their same schools after five years is substantially lower than the five-year retention rate of teachers staying in their same schools (59%). Principals and teachers have similar average rates of exiting the workforce after five years.

Five-year retention and mobility trends for assistant principals are different. In general, slightly lower percentages of assistant principals remain in the same school and higher proportions move to other schools in the district. A higher proportion of assistant principals move to other districts as compared to principals. The proportion of exiters who are assistant principals is lower than for principals.

Year to year retention and mobility rates show differences by role

When looking at retention and mobility from one year to the next, we find that, on average, 81% of principals remain in the same school, 9% move to another school in the same district, 4% move to another district, and 6% exit the workforce. Overall, no large differences exist between the yearly retention and mobility rates of elementary and secondary principals. Assistant principals have higher average annual rates of mobility and slightly lower rates of exiting as compared to principals. Furthermore, secondary assistant principals have higher rates of staying in the same school as compared to elementary assistant principals, and elementary principals have higher rates of mobility within the same district. The average yearly retention rates of elementary assistant principals who stay in the same school (65%) was substantially lower than that of elementary principals (81%). This large difference was not noted at the secondary level.

Comparisons to national statistics

When comparing to national statistics for the time period 2011-12 to 2012-13, Washington principals stayed in the same school at rates higher than the national average (82% compared to 77%). The percent of Washington principals who exited that year (5.5%) was lower than the national statistic of 11.5%. A national study found that 54% of public school principals who

changed schools moved to a school within the same district. In Washington state, 75% of principals who changed schools during this same time period moved to a school in the same district. As compared to national statistics, there is a much lower rate of stayers in Washington for principals working in schools enrolling fewer than 100 students, while a higher proportion of Washington principals stay in schools where the poverty rate exceeds 75%.

Career changes for school administrators

An examination of the career changes made by principals and assistant principals reveals that, by far, the most common career move is from assistant principal to principal. On average, nearly one-fifth of elementary assistant principals and one-tenth of secondary assistant principals become principals each year. Only a small portion of principals move to the Superintendency from one year to the next, while larger proportions of principals move to other central office roles. On average, after five years, 9% of elementary principals and 13% of secondary principals move to central office roles other than Superintendent.

Factors influencing exiting or moving districts

Results from logistic regression analyses indicate that male principals are more likely than females to remain in the same district as a principal. On the other hand, secondary principals are less likely than elementary principals to remain in the same district. Age also is a factor in examining retention and mobility. The probability that a principal stays in the same district increases with age until about age 45, then decreases. We also found that the odds of a principal exiting the profession increases as the student poverty level in the school increase, but the odds of exiting decrease as the percent of students of color in the building increases.

Policy Implications

This analysis of principal and assistant principal retention and mobility suggest several policy implications worthy of mention. First, there is a need to examine way in which the workforce can become more diverse. Assistant principals are more racially and ethnically diverse than principals, but the workforce is overwhelmingly White, and the student population continues to become more diverse. There is a particular concern about the declining proportion of principals and assistant principals who are Black/African American.

Second, the increase in the number of elementary assistant principals coincides with a number of statewide initiatives, including Washington's Teacher and Principal Evaluation Program and the adoption of the Common Core State Standards Initiative. Although we cannot say with complete certainty, it is possible that the increase in assistant principals is partly due to substantially greater teacher evaluation responsibilities or other instructional improvement initiatives for building principals. This increase is concentrated at the elementary level, as many elementary schools have not typically been staffed with assistant principals.

Third, there are indications that some school contexts (enrollment, poverty rate, and percent of students of color) may be related to principal retention and mobility. Conversation about these factors seems pertinent, and further analyses of school level contexts are warranted.

This report does not examine the extent to which the current supply of school principals and assistant principals is adequate to meet future staffing needs. The study also does not address reasons why principals and assistant principals choose to move to other schools or districts, or why they decide to leave the profession, either temporarily or permanently. Finally, this report does not address how working conditions impact school leaders' decisions about their careers, nor does it examine the relationship between principal retention and teacher retention. Based on the findings of this study, inquiry into these questions is likely to yield further insight into policies that may enhance the retention and support of school leaders.

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Appendix A: Characteristics of Washington Principal Workforce

	All	Elem	Second	All	Elem	Second	All	Elem	Second	All	Elem	Second	All	Elem	Second	All	Elem	Second
	2010/11			2011/12			2012/13			2013/14			2014/15			2015/16		
# Principals (Headcount)	1870	1167	754	1907	1207	765	1871	1182	729	1892	1196	752	1930	1210	778	1928	1206	781
FTE Principals	1767.55	1093.2	674.35	1774.9	1110.42	664.48	1799.57	1122.98	676.59	1824.04	1132.65	691.39	1861.91	1143.22	718.69	1840.34	1095.34	745.00
Principal Gender																		
Female	48.4%	56.0%	36.3%	48.3%	56.3%	35.6%	49.4%	57.7%	35.5%	49.7%	57.3%	36.4%	48.9%	56.7%	35.7%	49.8%	57.0%	37.5%
Male	51.6%	44.0%	63.7%	51.7%	43.7%	64.4%	50.6%	42.3%	64.5%	50.3%	42.7%	63.6%	51.1%	43.3%	64.3%	50.2%	43.0%	62.5%
Education																		
Bachelor	1.7%	1.5%	1.7%	1.7%	1.7%	1.8%	1.8%	1.9%	1.5%	2.2%	2.3%	1.7%	2.4%	2.4%	2.4%	3.0%	2.9%	2.8%
Master	94.7%	94.7%	95.1%	95.1%	95.1%	95.3%	94.3%	94.2%	94.7%	93.6%	93.0%	94.5%	93.3%	92.8%	94.1%	92.9%	92.5%	93.9%
Doctorate	3.5%	3.8%	2.9%	3.0%	3.1%	2.6%	3.8%	3.9%	3.7%	4.2%	4.7%	3.6%	4.2%	4.8%	3.2%	3.7%	4.1%	3.1%
Other	0.2%	0.1%	0.3%	0.2%	0.1%	0.3%	0.1%	0.0%	0.1%	0.1%	0.0%	0.1%	0.1%	0.0%	0.1%	0.2%	0.2%	0.0%
Unidentified	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%	0.1%	0.2%	0.2%	0.3%
Principal Age (in given year)																		
20-30	0.2%	0.3%	0.0%	0.2%	0.2%	0.1%	0.1%	0.2%	0.0%	0.6%	0.3%	1.2%	0.4%	0.5%	0.4%	0.5%	0.6%	0.6%
31-40	22.3%	23.1%	20.8%	22.4%	22.4%	22.5%	20.0%	20.2%	19.8%	19.2%	19.9%	18.1%	18.7%	19.3%	17.6%	18.5%	19.7%	16.1%
41-50	33.2%	30.8%	36.9%	33.9%	32.4%	35.9%	37.1%	35.6%	39.6%	38.8%	37.1%	41.4%	40.7%	38.8%	43.2%	41.6%	40.2%	44.2%
51-60	35.9%	36.6%	34.7%	34.9%	35.7%	34.1%	33.0%	33.2%	32.8%	31.9%	32.3%	31.6%	31.3%	31.3%	31.5%	31.2%	30.8%	31.9%
61+	8.3%	9.2%	7.6%	8.5%	9.3%	7.3%	9.7%	10.7%	7.8%	9.5%	10.5%	7.7%	9.0%	10.1%	7.3%	8.1%	8.6%	7.2%
Principal Ethnicity																		
Asian*	2.2%	2.8%	1.3%	2.6%	3.4%	1.6%	2.7%	3.5%	1.5%	2.7%	3.4%	1.7%	2.7%	3.1%	2.2%	2.6%	3.0%	1.9%
Black/African American	3.3%	3.4%	2.9%	3.0%	2.9%	2.9%	3.0%	2.8%	3.3%	3.4%	3.5%	3.1%	2.9%	3.0%	2.6%	2.8%	2.7%	2.7%
Hispanic	2.8%	2.5%	3.1%	3.3%	3.4%	2.9%	3.0%	3.0%	3.0%	2.6%	2.9%	2.0%	3.4%	3.6%	2.7%	3.3%	3.6%	2.7%
Native American/ Alaskan Native	0.5%	0.5%	0.5%	0.6%	0.5%	0.7%	0.6%	0.6%	0.7%	0.7%	0.7%	0.7%	0.9%	1.0%	0.8%	0.7%	0.7%	0.8%
White (non-Hispanic)	89.6%	89.3%	90.5%	88.1%	87.1%	90.1%	88.3%	87.7%	89.4%	89.3%	88.3%	91.2%	89.0%	88.0%	91.0%	89.4%	88.6%	91.0%
More than one race	1.6%	1.5%	1.7%	2.5%	2.7%	2.0%	2.3%	2.5%	2.1%	1.3%	1.2%	1.3%	1.1%	1.3%	0.8%	1.2%	1.5%	0.9%
Principal Experience (as certificated educator)																		
0-4 years	3.2%	2.7%	4.0%	2.5%	2.7%	2.6%	2.4%	2.5%	2.2%	3.6%	3.7%	3.7%	4.7%	5.0%	4.6%	6.5%	6.4%	7.0%
5-14 years	27.2%	26.2%	28.2%	27.7%	26.8%	29.2%	26.2%	25.4%	28.0%	25.9%	24.9%	27.7%	26.3%	26.0%	27.2%	25.2%	26.0%	24.1%
15-24 years	39.0%	39.8%	37.5%	39.4%	39.4%	38.2%	42.1%	42.5%	40.5%	42.2%	42.1%	41.2%	41.7%	40.7%	42.4%	42.9%	41.7%	44.8%
25 yrs or more	30.6%	31.4%	30.2%	30.4%	31.2%	30.1%	29.3%	29.6%	29.4%	28.4%	29.3%	27.4%	27.3%	28.2%	25.7%	25.5%	26.0%	24.2%

NOTE: Preliminary S275 data is used for 2015-16.

Because some administrators have multiple duty roots, the headcounts of elementary and secondary principals do not sum to the statewide headcount.

*Asian also includes Pacific Islander and Native Hawaiian

Appendix B: Characteristics of Washington Assistant Principal Workforce

	All			Elem			Second			All			Elem			Second			All			Elem			Second			All			Elem			Second																			
	2010/11									2011/12									2012/13									2013/14									2014/15									2015/16							
# AP (headcount)	925	162	786	925	151	787	920	158	773	1002	217	802	1100	295	825	1197	366	852																																			
FTE Assistant Principal	849.59	119.86	729.73	841.88	108.87	733.01	867.4	134.18	733.22	943.25	185.52	757.73	1042.54	265.96	776.58	1094.95	320.73	774.22																																			
Principal Gender																																																					
Female	43.5%	51.9%	41.7%	44.3%	53.0%	42.6%	44.1%	60.1%	40.9%	46.5%	60.8%	42.6%	49.1%	64.4%	43.3%	50.2%	62.8%	44.6%																																			
Male	56.5%	48.1%	58.3%	55.7%	47.0%	57.4%	55.9%	39.9%	59.1%	53.5%	39.2%	57.4%	50.9%	35.6%	56.7%	49.8%	37.2%	55.4%																																			
Education																																																					
Bachelor	1.7%	1.2%	1.8%	2.4%	2.6%	2.3%	2.8%	3.8%	2.6%	3.2%	5.1%	2.7%	3.5%	4.4%	3.3%	4.5%	5.2%	4.1%																																			
Master	95.8%	97.5%	95.5%	94.8%	95.4%	94.8%	94.5%	93.7%	94.7%	95.2%	94.9%	95.3%	94.5%	93.6%	94.8%	92.6%	92.3%	93.0%																																			
Doctorate	2.3%	0.6%	2.5%	2.7%	1.3%	2.9%	2.6%	1.9%	2.7%	1.6%	0.0%	2.0%	1.8%	1.7%	1.8%	2.0%	1.9%	2.0%																																			
Other	0.2%	0.6%	0.1%	0.1%	0.7%	0.0%	0.1%	0.6%	0.0%	0.0%	0.0%	0.0%	0.2%	0.3%	0.1%	0.2%	0.0%	0.2%																																			
Unidentified	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.7%	0.5%	0.7%																																			
Principal Age (jn given year)																																																					
20-30	1.3%	0.0%	1.5%	1.6%	3.3%	1.4%	2.0%	2.5%	1.8%	2.6%	4.6%	2.1%	3.2%	5.4%	2.3%	2.9%	5.2%	1.9%																																			
31-40	35.8%	41.4%	34.5%	32.3%	39.7%	31.0%	32.3%	39.2%	31.2%	32.5%	41.0%	30.8%	33.6%	43.1%	30.9%	35.8%	45.4%	32.4%																																			
41-50	34.3%	31.5%	35.4%	37.0%	31.1%	37.9%	38.2%	34.2%	38.7%	38.0%	34.1%	38.8%	36.0%	30.5%	37.8%	35.4%	30.3%	37.4%																																			
51-60	23.8%	23.5%	23.7%	24.1%	23.2%	24.4%	21.6%	18.4%	22.4%	20.9%	14.7%	22.3%	22.0%	17.6%	23.3%	20.6%	15.6%	22.4%																																			
61+	4.9%	3.7%	5.0%	5.0%	2.6%	5.3%	6.0%	5.7%	6.0%	6.0%	5.5%	6.0%	5.2%	3.4%	5.7%	5.2%	3.6%	5.9%																																			
Principal Ethnicity																																																					
Asian*	2.4%	1.2%	2.5%	2.1%	2.0%	2.0%	1.8%	0.6%	2.1%	2.2%	3.2%	1.9%	2.3%	3.4%	1.8%	2.4%	4.4%	1.5%																																			
Black/African American	7.0%	6.8%	6.9%	6.9%	7.3%	6.7%	6.1%	5.7%	6.1%	5.6%	4.1%	5.9%	5.5%	4.7%	5.7%	5.6%	5.7%	5.6%																																			
Hispanic	5.4%	6.2%	5.2%	5.2%	4.6%	5.2%	5.2%	5.7%	5.0%	4.3%	2.8%	4.6%	5.6%	6.1%	5.7%	5.8%	6.6%	6.0%																																			
Native American/ Alaskan Native	0.8%	0.6%	0.8%	0.8%	0.7%	0.8%	0.8%	0.6%	0.8%	0.6%	0.5%	0.6%	0.8%	0.7%	0.8%	0.5%	0.8%	0.4%																																			
White (non-Hispanic)	83.0%	84.6%	83.1%	81.9%	82.1%	82.2%	82.9%	82.3%	83.2%	85.2%	88.0%	84.7%	84.0%	83.7%	83.9%	83.9%	80.6%	84.7%																																			
More than one race	1.4%	0.6%	1.5%	3.1%	3.3%	3.0%	3.2%	5.1%	2.8%	1.9%	1.4%	2.1%	1.8%	1.4%	2.1%	1.8%	1.9%	1.8%																																			
Principal Experience (as certificated educator)																																																					
0-4 years	3.5%	1.9%	3.7%	4.2%	7.9%	3.6%	6.5%	10.8%	5.8%	7.2%	11.1%	6.1%	7.5%	10.5%	6.4%	8.8%	10.9%	7.9%																																			
5-14 years	43.4%	46.3%	42.6%	39.5%	46.4%	38.2%	38.5%	44.9%	37.4%	41.4%	53.0%	38.8%	43.3%	55.6%	39.6%	43.1%	54.4%	39.0%																																			
15-24 years	34.2%	35.8%	34.4%	37.0%	31.1%	37.9%	36.3%	34.2%	36.4%	34.9%	26.7%	36.8%	34.6%	23.7%	37.9%	34.8%	25.4%	38.4%																																			
25 yrs or more	19.0%	16.0%	19.3%	19.4%	14.6%	20.3%	18.7%	10.1%	20.4%	16.5%	9.2%	18.3%	14.6%	10.2%	16.0%	13.5%	9.3%	15.0%																																			

NOTE: Preliminary S275 data is used for 2015-16.

Because some administrators have multiple duty roots, the headcounts of elementary and secondary principals do not sum to the statewide headcount.

*Asian also includes Pacific Islander and Native Hawaiian

Appendix C: School Characteristics of Elementary Principals and Assistant Principals

	2010-11				2011-12				2012-13				2013-14				2014-15			
	Elementary Principals		Elementary AP		Elementary Principals		Elementary AP		Elementary Principals		Elementary AP		Elementary Principals		Elementary AP		Elementary Principals		Elementary AP	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Number of Principals	1146		144		1177		142		1160		152		1167		203		1177		282	
Region of the State																				
Western WA ESD 112 (Southwest)	103	9%	32	22%	112	10%	29	20%	101	9%	25	16%	105	9%	26	13%	106	9%	29	10%
Western WA ESD 113 (Capital Region)	83	7%	7	5%	82	7%	9	6%	93	8%	13	9%	92	8%	9	4%	93	8%	16	6%
Western WA ESD 114 (Olympic)	47	4%	6	4%	53	5%	2	1%	49	4%	5	3%	48	4%	3	1%	52	4%	5	2%
Western WA ESD 189 (Northwest)	169	15%	16	11%	172	15%	12	8%	173	15%	11	7%	178	15%	15	7%	170	14%	35	12%
Central Puget Sound ESD 121	441	38%	33	23%	441	37%	41	29%	434	37%	53	35%	429	37%	93	46%	435	37%	128	45%
Eastern WA ESD 101 (Spokane)	117	10%	12	8%	118	10%	11	8%	119	10%	6	4%	123	11%	8	4%	123	10%	9	3%
Eastern WA ESD 105 (Yakima)	65	6%	23	16%	68	6%	20	14%	66	6%	23	15%	65	6%	28	14%	66	6%	35	12%
Eastern WA ESD 123 (Southeast)	70	6%	12	8%	76	6%	12	8%	73	6%	13	9%	74	6%	17	8%	75	6%	18	6%
Eastern WA ESD 171 (North Central)	51	4%	3	2%	55	5%	6	4%	52	4%	3	2%	53	5%	4	2%	55	5%	5	2%
Poverty of School*					1177		142													
0-25% FRPL	214	19%	14	10%	200	17%	19	13%	197	17%	32	21%	208	18%	36	18%	219	19%	50	18%
26-49% FRPL	374	33%	51	35%	375	32%	43	30%	354	31%	40	26%	346	30%	50	25%	337	29%	73	26%
50-75% FRPL	346	30%	37	26%	366	31%	42	30%	375	32%	30	20%	361	31%	44	22%	384	33%	77	27%
75+% FRPL	183	16%	42	29%	211	18%	38	27%	213	18%	50	33%	216	19%	66	33%	213	18%	74	26%
Not reported/missing	29	3%	0	0%	25	2%	0	0%	21	2%	0	0%	36	3%	7	3%	24	2%	8	3%
Student Race/Ethnicity					1177		142													
0-25% students of color	369	32%	41	28%	364	31%	38	27%	339	29%	33	22%	332	28%	35	17%	309	26%	44	16%
26-49% students of color	435	38%	50	35%	459	39%	48	34%	459	40%	55	36%	455	39%	54	27%	452	38%	76	27%
50-74% students of color	188	16%	16	11%	198	17%	17	12%	203	18%	15	10%	206	18%	36	18%	237	20%	69	24%
75+% students of color	125	11%	37	26%	131	11%	39	27%	138	12%	49	32%	138	12%	71	35%	155	13%	85	30%
Not reported/missing	29	3%	0	0%	25	2%	0	0%	21	2%	0	0%	36	3%	7	3%	24	2%	8	3%
School Enrollment					1177		142													
1-199	61	5%	4	3%	64	5%	6	4%	55	5%	4	3%	60	5%	4	2%	69	6%	4	1%
200-399	333	29%	11	8%	323	27%	13	9%	337	29%	12	8%	326	28%	14	7%	322	27%	18	6%
400-499	318	28%	17	12%	347	29%	19	13%	327	28%	18	12%	309	26%	28	14%	298	25%	43	15%
500-599	251	22%	35	24%	244	21%	30	21%	256	22%	33	22%	265	23%	50	25%	270	23%	79	28%
600-799	131	11%	65	45%	149	13%	62	44%	145	13%	69	45%	153	13%	85	42%	174	15%	114	40%
800-999	18	2%	11	8%	17	1%	9	6%	17	1%	12	8%	17	1%	13	6%	17	1%	15	5%
1000+	5	0%	1	1%	8	1%	3	2%	2	0%	4	3%	1	0%	2	1%	3	0%	1	0%
Not reported/missing	29	3%	0	0%	25	2%	0	0%	21	2%	0	0%	36	3%	7	3%	24	2%	8	3%
Transitional Bilingual					1177		142													
0-25% TBIP	943	82%	105	73%	982	83%	105	74%	966	83%	108	71%	927	79%	115	57%	932	79%	172	61%
26-49% TBIP	138	12%	26	18%	139	12%	25	18%	135	12%	30	20%	62	5%	63	31%	172	15%	81	29%
50-75% TBIP	35	3%	13	9%	29	2%	12	8%	35	3%	14	9%	37	3%	17	8%	42	4%	19	7%
75+% TBIP	1	0%	0	0%	2	0%	0	0%	3	0%	0	0%	5	0%	1	0%	7	1%	2	1%
Not reported/missing	29	3%	0	0%	25	2%	0	0%	21	2%	0	0%	36	3%	7	3%	24	2%	8	3%

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

Preliminary S275 data in 2015-16; duty root 21, 22, 23 or 24, with FTE designation greater than 0 in given year.

Characteristics represent individuals' primary buildings (highest FTE, or largest enrollment in the case of equal FTE).

Because some administrators have multiple duty roots, the headcounts of elementary and secondary principals do not sum to the statewide headcount.

Appendix D: Coefficients of Logistic Regression Predicting the Probability of Staying in the Same School or District as Principal (2011/12 - 2015/16)

	Estimate	Standard error	z
Intercept	-11.75	1.859	-6.320***
Male principal (relative to female baseline)	0.192	0.112	1.705*
Principal age	0.546	0.079	6.937***
Principal age ²	-0.006	0.001	- 7.440***
School level: secondary (relative to elementary baseline)	-0.252	0.117	- 2.160**

*** $p < .01$; ** $p < .05$; * $p < .1$

Appendix E: Coefficients of Logistic Regression Predicting the Probability of Exit (2011/12 - 2015/16)

	Estimate	Standard error	z
Intercept	12.418	2.744	4.525***
Principal age	-0.734	0.113	- 6.486***
Principal age ²	0.009	0.001	7.724***
School % SOC	-0.011	0.004	- 2.390**
School % FRL	0.009	0.004	2.039**

*** $p < .01$; ** $p < .05$; * $p < .1$