

Salary & Benefits Schedule and Teacher Tenure Study

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A report prepared for the Alaska Department of Administration

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About CAEPR

The Center for Alaska Education Policy Research (CAEPR) is a non-partisan research organization within the Institute of Social and Economic Research (ISER) at the University of Alaska Anchorage (UAA).

More information about CAEPR can be found on our website:

<http://www.iser.uaa.alaska.edu/CAEPR/>

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Introduction

House Bill 278, passed by the legislature in spring 2014, instructed the Department of Administration to “present to the legislature a written proposal for a salary and benefits schedule for school districts, including an evaluation of, and recommendations for, teacher tenure” (Sec. 52). In order to meet this mandate, the Alaska Department of Administration contracted with the UAA Center for Alaska Education Policy Research (CAEPR) to produce the following deliverables:

- Develop geographic cost differentials for different school districts
- Develop base salary and benefit schedules for teachers and principals
- Describe superintendent duties, compensation, and responsibilities in Alaska districts
- Prepare a list of different benefit options school districts offer their employees and their associated costs
- Provide recommendations regarding teacher tenure policy
- Describe similarities and differences between the certified and classified labor markets in Alaska

Each section of this report responds to a specific task or responsibility from this list.

Report overview

This report presents the results of CAEPR’s study. It describes the current research literature available on these topics, and then describes CAEPR’s methods for conducting an independent study. It presents findings for each of the research activities separately, and concludes with recommendations derived from these data sources.

Research activities

The study derived its findings and recommendations from four main research activities:

- A **literature review**, which systematically compiled and analyzed studies evaluating the experience in Alaska and other states regarding: implementation and outcomes of alternative salary and benefit schedules, tenure policy, and tenure case law.
- **Interviews**, including key informant interviews, stakeholder focus group interviews, and superintendent interviews, provided perceptions of key issues, opportunities, successes, and challenges related to hiring, deployment, and retention of personnel.
- A **survey** of stakeholders compiled findings from the literature review and interviews to systematically solicit input from a broader audience. This provided data on stakeholder perceptions, preferences, and expectations regarding salary, benefits, and tenure policies, and also collected specific data from teachers, which was used to inform the statistical analysis.
- The **statistical analysis** incorporated findings from the first three activities to combine data on Alaska school district and community characteristics, district compensation terms, and employment records for certified staff to generate a proposed base compensation schedule and geographic differentials.

These activities are more fully described as methods in the individual sections of this report and in the technical appendices.

Context

The timing for this study was less than ideal. At the time of this writing, the state is experiencing a drastic decline in revenue, resulting in a significant reduction in the resources available to implement and assess properly any new compensation or tenure systems. But this is a less significant impediment to change than other shifts underway in Alaska's K-12 system at present.

Most alternative approaches to teacher compensation and tenure use some combination of tiered licensure, standardized student learning outcomes, and other measures of teacher effectiveness to determine whether teachers advance on the pay scale and/or are retained. They depend on the availability of consistent longitudinal data that is at present not available in Alaska, because there are significant changes occurring in how we assess student learning and teacher effectiveness.

In the spring of 2015, the Alaska Department of Education and Early Development (DEED) implemented new language arts and math assessments, the "Alaska Measures of Progress" (AMP), for students in grades 3-10. This year's test scores will set the new baseline against which future student growth will be measured, but these assessments will not allow a standardized measure of how students' learning has grown over the course of the current year, as they differ considerably from prior assessments, and are based on different content standards than the previous exams. The AMP assesses the Alaska Language Arts and Mathematics content standards that were adopted in June 2012, but not fully implemented until the 2014-15 year. Teachers have undergone extensive professional development in the new standards, but these represent a considerable shift and many are working with new curricular materials as well as new standards and expectations.

Finally, with new standards or new practices there can be something known as the "implementation dip" which is "...a dip in performance and confidence as one encounters an innovation that requires new skills and new understandings" (Fullan, 2001, p. 40). We do not know whether this will be the case in Alaska, but given that students are taking new state standardized assessments that are both different in content due to new standards and also are fielded online rather than with paper and pencil for the first time, we would not be surprised to see a first year dip. This means that using growth in student test scores as one factor in teacher evaluation and compensation schemes will be problematic for the next couple of years.

The state and districts are also using a new teacher evaluation system, which will not be fully implemented until the 2015-16 school year. The new system requires that districts use two to four measures of student growth in their teacher and administrator evaluations including, when appropriate, the statewide standardized tests now being implemented. We will not know until after our work on this project is completed the standards for performance based on student learning data adopted by each district, nor how they are incorporating student data into the overall evaluation process. These evaluation systems are intended to strengthen the teacher evaluation process and could affect the teacher tenure process, as well as improve student learning outcomes. However, it will be a few years before we know fully the impact and effectiveness of these systems.

The landscape of teachers in Alaska

In 2013-14, there were 8,195 full- and part-time teachers working in Alaska's schools, serving over 128,000 students in grades K-12¹. Of these 1,257 were Special Education teachers, 218 taught in correspondence schools, and 90 worked as Head Teacher, (with some of the responsibilities typically handled by a principal).

¹ Teacher-student ratios are frequently referenced as proxies for school quality, but these numbers are more nuanced in Alaska. Small communities, for example, may have more teachers per student than national

In any given year, Alaska hires far more teachers from outside of the state than within. On average, from 2008 - 2012, about 64% of teachers hired by districts across the state were from outside Alaska. Over the past eight years, the number of teachers prepared each year within the state has remained largely static; University of Alaska programs generally graduate between 200 and 240 teachers per year while Alaska Pacific University produces another handful of educators annually. However, turnover rates among teachers prepared in-state who have under 10 years of experience are far lower than those prepared outside (Hill & Hirshberg, 2013; Hill, Hirshberg, Lo, Morotti, & Dean, 2015). High teacher turnover rates and teachers unprepared for rural Alaska have made improving teacher quality a significant concern for policy makers, and the focus of many initiatives.

Measuring teacher quality across the state is difficult. However, the federal *No Child Left Behind Act* of 2001 (NCLB) has provide one measure – highly qualified status. One goal of NCLB was that every student be taught by highly qualified teachers. Highly qualified status is determined based on the match between a teacher’s qualifications and the class they are assigned to teach. While it is not a complete measure, and does not attempt to gauge overall teacher quality, it does measure whether teachers have demonstrated the content knowledge required to teach their assigned classes.

In 2013-14, 89% of core classes in Alaska public schools were taught by highly qualified teachers² (EED, 2014). By comparison, the US Department of Education reports that nationwide rates are 96.25%. Though Alaska has raised its percentage of highly qualified teachers between 2003 and 2012 faster than any other state, it reported a decrease in the number of classes taught by highly qualified teachers between 2012 and 2014. Alaska is one of only five states reporting less than 90% highly qualified teachers. The gap between high- and low-poverty areas is the third highest in the nation.

The context for hiring teachers is also changing even as this report is being released. First, during the economic downturn following 2008, teaching positions were being cut across the nation, and in some places classroom teachers faced layoffs or work furloughs. Alaska saw a reduction in its teacher turnover rate as jobs outside of the state became scarcer. While we cannot say for sure the economic downturn outside caused less teacher turnover in Alaska, we do suspect this was a significant factor.

Now, the situation has changed, and districts across the nation are both hiring and paying higher wages as the job markets pick up. For example, in Spring 2014, Oregon school districts hired over 2,000 teachers, in contrast to reducing teaching jobs by 3,600 (12 percent of their teacher workforce) in the previous few years (Hammon, 2014). At the same time there is a sharp drop in the number of college students pursuing a teaching degree. California, a state that traditionally was among the largest producers of teachers in the nation, saw a 53% drop in teacher preparation enrollments between 2008-9 and 2012-13, and in many states including California, New York, and Texas the decline in teacher preparation enrollments is accelerating (Sawchuck, 2014).

These challenges, combined with Alaska’s declining population relative to other states, may result in districts having increasing challenges in recruiting and retaining educators from outside the state. Indeed as of mid-July

averages, but these numbers reflect school enrollments, rather than teacher distributions. For example, though a teacher in a larger district may have 30 students in a class, a small school with 20 students nonetheless needs highly qualified teachers in various subjects.

² The United States Department of Education reports 88.09% for this figure. Sometimes statistics calculated by federal and state agencies differ slightly, depending on when the analysis was performed.

2015, there were over 230 regular teacher vacancies across the state (ATP, 2015), meaning that many districts were facing vacancies with less than a month to the start of the school year.

Key findings

The findings of the research are more fully described in the pages that follow of this report; key results for each section are described below.

Community salary differentials

This analysis considered how multiple factors affect teacher recruitment and retention, including community demographic and geographic characteristics, cost of living indicators, and student demographics. The differentials are very different from cost of living indices. The analysis produces a number for each Alaskan community that represents the salary differential relative to a suggested salary schedule for Anchorage, that would compensate teachers for the range of factors that might make a community more or less attractive than Anchorage. We calculated differentials that range from 0.85 to 2.01, with particularly high differentials associated with remote rural communities. The data showed that teachers preferred a few communities to Anchorage, and for those communities, the differential is less than 1.

Base salary and benefit schedule for teachers

The analysis identified a base salary schedule for teachers that should allow the Anchorage School District to attract and retain highly qualified teachers without over-paying them. Multiplying the schedule by the community salary differentials should result in salaries that would allow other communities to also attract and retain highly qualified teachers for their schools.

Comparing the analysis to current compensation, we find that current teacher salaries in Alaska's urban school districts are close to the levels they need to be to meet the standard. Anchorage salaries are 10% lower, Mat-Su salaries are right for the central areas, although low for outlying communities. Fairbanks, Juneau, and Ketchikan are slightly higher than needed. Salary schedules for teachers in most rural Alaska schools are lower than needed to meet the standard; they are substantially lower in many smaller, more remote communities.

Superintendent duties, compensation, and responsibilities

Superintendents are hired by, and serve at the pleasure of school boards. In general, superintendents are responsible for school district operations, budgets, curriculum standards, and external relations. However in Alaska, particularly in smaller districts, they often take on additional roles and responsibilities that are met by assistant superintendents, principals, teachers, or maintenance staff in larger districts. Compensation for superintendents also varies significantly. As pay is set by school boards, these salaries do not necessarily correlate with the magnitude of responsibilities or community differentials identified in this study. Statewide, superintendent salaries are significantly lower than national averages.

Employee benefits

In addition to salary, benefits are an aspect of teacher compensation that districts can use to make jobs more attractive. The only universal and uniform benefit is the retirement program, as it is set by the state. Other benefits vary by district. Health insurance and personal leave days are available in all districts, but teacher contribution towards healthcare packages and the number of leave days awarded vary considerably. Other benefits also vary significantly in their provision and extent, and include life insurance, travel support, moving allowances, housing, and tuition reimbursement.

Teacher tenure

Tenure may be better termed “due process;” in a nutshell, once teachers earn it, they are protected from being fired or laid off without cause. Tenure is a valued employee benefit, and allows districts to pay teachers less than they would have to if tenure did not exist. If Alaska’s tenure policy is made more restrictive, districts will need to pay teachers more in order to compete with other states who are also trying to attract teachers. Alaskans hold some significant misconceptions about tenure, believing that it conveys more rights than it actually does. Still, there is little public support for changing current tenure policy in Alaska.

Certified and classified labor markets

The labor markets for classified positions (which encompass a wide range of support positions that do not require a teaching certificate) are typically local to each community, in contrast with the teacher labor market which is statewide and national. Districts acquire related service providers through a complex mix of full- and part-time employment and contracting.

Recommendations

Below are key recommendations, which are expanded upon in the last section of this report:

- We do not recommend that the state adopt a single teacher salary schedule at this time. Salaries based on such a schedule, with appropriate community differentials, would cost more than current teacher compensation. If our models were implemented statewide, salary costs would increase by approximately 15 percent across Alaska, while individual district salary cost changes would range from a 6 percent decrease to a 105 percent increase.
- If the legislature chooses to implement a single salary schedule for teachers, we can only recommend using a step-and-lane schedule. There is considerable interest in performance-based pay, but Alaska does not yet have sufficient data from the new teacher evaluation system to use that approach.
- We recommend further research around how to create an effective merit-based system.
- We do not recommend changing tenure policy at present. We suggest that the legislature revisit the question after districts have fully implemented the new teacher evaluation systems and can determine how effective they are at identifying poor performing educators early in their career.

Methodology

The study derived its findings and recommendations from the following research activities:

- interviews with key informants
- focus groups with key stakeholder groups
- review of previous relevant studies
- survey of stakeholders
- district data compilation
- statistical analysis of compensation and employment records
- superintendent interviews

Key informant interviews of school district leaders and focus groups with stakeholders provided perceptions of key issues, opportunities, successes, and challenges related to hiring, deployment, and retention of personnel. The literature review systematically compiled and analyzed studies evaluating the experience in Alaska and other states regarding implementation and outcomes of alternative salary and benefit schedules. Results of interviews, focus groups, and the literature review guided the development of the stakeholder survey. That survey provided more in-depth data on stakeholder perceptions, preferences, and expectations regarding salary, benefits, and tenure policies. Findings generated from these four tasks guided the statistical analysis, which combined data on Alaska school district and community characteristics, district compensation terms, and employment records for certified staff to generate proposed base compensation schedule and community salary differentials. Finally, we interviewed superintendents to better understand their job duties and compensation structures.

Key informant interviews

Key informant interviews were conducted with:

- Carol Comeau, Former Superintendent of the Anchorage School District
- Mike Dunleavy, Senator, Alaska State Senate
- Saul Friedman, attorney, Jermain Dunnagan & Owens, PC, general counsel for a number of Alaska school districts
- Mike Hanley, Commissioner of Education & Early Development
- Les Morse, Deputy Commissioner of Education & Early Development
- Dr. Susan McCauley, Division Director, Teaching and Learning, Alaska Department of Education & Early Development
- Sondra Meredith, Teacher Education and Certification Administrator, Alaska Department of Education & Early Development
- Joseph Reeves, Executive Director, Association of Alaska School Boards
- Chris Simon, Rural Education Coordinator, Alaska Department of Education & Early Development

These were unstructured interviews which covered the broad areas of teacher salary, benefits and tenure; staffing challenges districts face when hiring teachers, administrators, and other staff; and other issues we should be aware of while conducting the study. Specific questions were tailored to each informant's specific expertise. For example, we explored urban districts' challenges in more depth with Carol Comeau and rural challenges in greater depth with Chris Simon.

Focus Groups

We conducted focus group interviews with representatives from the National Education Association-Alaska (NEA-Alaska), the Alaska Association of School Business Officers (ALASBO), Alaska Superintendents Association, the Alaska Association of Elementary School Principals, and the Alaska Association of Secondary School Principals. More than 100 education professionals participated in these focus group interviews. All focus groups discussed four topics around teacher compensation: salary schedule structures, advancement and additional compensation, statewide versus the current local salary schedule, and tenure.

Literature review

The literature review explored 2 areas: teacher compensation and tenure. The searches included academic databases as well as government reports, position papers, and policy documents. The teacher compensation review included technical assistance and best practice documents about different compensation system structures, and empirical studies exploring the effectiveness of such structures, both in the education system and for other public and private industries. The available literature drew from studies in the national context and in other states, reviewing both longitudinal and macro data, as well as smaller controlled experiments and case studies. We also compiled information about Alaska initiatives. There is less empirical literature on tenure. The majority of empirical studies reviewed tenure from an economic or policy perspective. Because tenure has received media attention of late, the review noted high-profile cases and media coverage that affected public sentiment around tenure. Additionally, we explored the historical origins of tenure and other federal policies that have been initiated since its inception that protect workers' rights and certain protected classes of individuals. This included an extensive review of the history of Alaska tenure policy and case law, as well as the tenure policies in other states.

Teacher survey

From key informant interviews, focus groups and the literature review, we were able to identify themes and topics for further exploration. We developed the survey instrument around those themes, and vetted the draft instrument for construct validity with the Alaska Council of School Administrators, administrators in the Alaska Department of Education and Early Development, members of the CAEPR advisory board, and the director of the University of Alaska Office of K-12 Outreach. Items were adjusted for clarity and non-bias to ensure quality results. The entire process was reviewed for ethical conduct and approved by the University of Alaska Anchorage Institutional Review Board (IRB).

An electronic version of the instrument was developed for each stakeholder category. The survey was advertised through stakeholder networks (listed fully in Appendix G), and also through presentations at the Association of Alaska School Boards Annual Conference, November 2014; the Center for Alaska Education Policy Research Advisory Board, December 2014; the Alaska State Board of Education, December 2014; the Association of Alaska School Boards Winter Boardsmanship Academy, December 2014; the NEA-Alaska Board of Directors, January 2015; the 2015 Alaska Superintendent's Association Legislative Fly In, March 2015; and Great Alaska Schools general meeting, March 2015. The survey link was sent by e-mail directly by CAEPR to lists that we had, and also from stakeholder groups to their members, and was available on the CAEPR website over a six week period from March 9, 2015 through April 13, 2015. The survey for School Board members was left open for an additional two-weeks while we made individual phone calls and e-mails to encourage greater participation from that group. We received over 900 responses from seven different groups³ as follows:

³ Other elected officials were also invited to participate in the survey, but we did not receive sufficient participation to draw averages.

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- 553 Teachers
- 98 Principals
- 44 Superintendents
- 80 Other education positions
- 28 School Business Officers
- 70 Parents, Students, and Community Members
- 32 School Board members

Respondents came from across Alaska. 819 individuals reported their Alaskan community affiliation, and those responses represent 103 different Alaskan communities. Sixty-six percent of responses represented communities in “the big 5” Alaskan districts (Anchorage, Mat-Su, Kenai Peninsula, Fairbanks, and Juneau); the remaining 34% represented smaller districts.

District data compilation

To inform both the salary schedule analyses and the discussions of tenure, we gathered publicly available data for individual Alaska schools and school districts from School Report Cards and other reports submitted by schools and districts to Alaska DEED. We obtained several years of collective bargaining agreements with teachers’ unions and coded them for benefits and working conditions that affect compensation such as health care premiums, housing and travel subsidies, salary placement policies, opportunities for bonuses and additional pay, and tuition reimbursement. We compiled publicly available information on school, student, and staff characteristics, and supplemented those with surveys completed by school business officers. Though we were not able to obtain all the data we sought from all districts, the wide number of participating districts provides a nice overview of the breadth and scope of school districts in Alaska.

Statistical analysis

The study used statistical analysis of community and school characteristics and school personnel records to estimate the amount of compensation needed to attract and retain qualified teachers and school administrators to all Alaska schools. The overall goal of the analysis was to understand what compensation, working and living conditions draw teachers to jobs in particular schools and communities, and then remain in those jobs. The objectives included determining minimum salary levels needed to attract and retain qualified teachers and school administrators, community salary differentials for differences in living costs and amenities, and employee benefits most important to staff. The analysis also addressed potential variation in pay for experience, advanced education or skills, performance, or specialized job characteristics or assignments.

Data for Census Bureau indicators and other community characteristics were derived from databases maintained by the Institute of Social and Economic Research (ISER). Alaska school districts provided district information, including salary and benefit schedules from collective bargaining agreements (CBAs). School report cards and other reports submitted to DEED provided data on individual schools. Employment records, employee information, and compensation for certified staff were obtained from databases maintained by DEED.

The base compensation schedule was derived from a statistical analysis at the school level of teacher compensation and characteristics of schools historically meeting or falling short of the federal standard of having 100 percent of core classes taught by highly qualified teachers. When characteristics of schools meeting the standard are paired with salary data, they approximate a salary threshold level needed for a school with a

given set of characteristics to obtain qualified teachers, using the federal standard as a (minimum) measure of quality.

To derive community salary differentials, the school-level analysis of percentage of core classes taught by highly qualified teachers was combined with two additional statistical analyses that used the individual teacher or principal as the unit of observation. One analysis focused on employment duration (turnover) of individual teachers and principals in schools with different characteristics, while the other focused on job moves between Alaska schools. If one accepts that most job moves involve a transfer to a preferred position, and that individuals remain longer in positions that they prefer, then statistical analysis of these measures estimate a tradeoff between compensation received and working and living conditions, measured by characteristics of the job assignment, the school, the community, and the district.

The statistical analysis of job moves and turnover also included estimation of the tradeoff from the school employee's perspective between salary and various benefit items, to the extent that benefits components could be quantified or categorized. Benefit items specifically analyzed included teacher housing, district contribution to health insurance, employee's contribution to health care, amount of paid leave, and whether or not the district offered a signing bonus, paid for travel, or paid for tuition. In a similar manner, comparing job moves that involved a loss of tenure to those that did not provided an estimate of the dollar amount that teachers placed on the value of tenure as an employee benefit.

Superintendent interviews

We interviewed 44 of Alaska's 53 superintendents about what they have direct responsibility for versus what they delegate, what kind of administrative support they have, and what is unique about being a superintendent in their district. While we did not speak with every superintendent in the state, we did talk with superintendents from a broad range of districts, from the leader of the largest district in terms of enrollment, over 48,000 students, to the smallest district with just 13. We talked with superintendents from the largest districts geographically as well as the most isolated.

Base salary schedule and community salary differentials

Deliverables: Develop valid, reliable and defensible geographic cost differentials for different subgroups of school district personnel in different school districts or, if appropriate, sites within a school district. Geographic cost differentials can be calculated for a whole district where no significant variation between its sites is found to exist. Where significant variation between sites within a district is found to exist, a geographic cost differential must be determined for each site. CAEPR is expected to determine geographic cost differentials through the use of a valid, reliable and defensible method, and use a valid, reliable and defensible method to measure whether significant intra-district variation exists.

Develop base salary and benefit schedules for teachers and principals. CAEPR is expected to use valid, reliable and defensible methods to develop these schedules.

Findings: Modeling salaries and differentials

Creating a potential unified statewide compensation regime for public school teachers and principals requires addressing a number of important questions, including:

1. What overall salary levels are needed to attract and retain qualified teachers and school administrators in Alaska schools?
2. What community differentials are appropriate to adequately compensate for differences in living costs and availability of amenities that matter to professional workers and their families?
3. What employee benefits are most important to staff and should therefore be included in a statewide compensation package?
4. What variation in pay, if any, should be offered to compensate for specialized job characteristics or assignments, such as for head teachers, special education or mathematics and science?
5. What variation in pay, if any, should be offered to compensate for experience, advanced education or skills, or performance?

We modeled teachers' and principals' responses (in terms of taking and staying in a particular job) to salary, benefits, working conditions, and community characteristics as described in the methodology section. The result of those analyses was a proposed salary schedule and community differentials that could be applied to that schedule for teachers working in different locations. Our analysis was not intended to produce a geographic cost differential (such as the one currently in place in Alaska's school funding formula). The community salary differentials in this report would be only one part of an overall geographic cost differential, which would have to include other components such as districts' varying costs around energy, transportation, maintenance, and other factors.

Although we attempted to model both teachers and principals, we were unable to develop robust models for principals. This was due to several factors, including the relatively small total number of principals, the wide variation in principal compensation, and the fact that many districts do not have collective bargaining agreements for principals, resulting in missing data around benefits and around principal characteristics that affect pay. As a result, we have not developed a proposed salary schedule of community salary differentials for principals, and the remainder of the results concerns teachers only.

We first discuss the results around what characteristics are related to teacher pay, qualifications, moves and retention in their communities. We then present the salary schedule and community salary differentials that resulted from the analysis. Finally, we briefly compare and contrast our community salary differentials with several indicators of the cost of living in different Alaska communities.

In order to model the effects of salary, benefits, and community characteristics on teachers' willingness to accept and stay in jobs in different districts, we needed to be able to predict teacher salaries based on their characteristics in different districts. In theory, collective bargaining contract provisions combined with education and experience should determine salary exactly for full-time teachers. In practice, the salary equations explained 78 percent of variation in salaries of full-time teaching personnel using contract provisions as well as additional characteristics of teachers and positions that are not mentioned explicitly in the contracts. Specifically, we included demographic information about teachers and information about specific job assignments. We found no significant differentials between pay of men and women and between African American and White teachers. However, American Indian and Alaska Native (AI/AN) teachers were paid 1.3 percent less (95% confidence interval (CI) 0.4% - 2.1%) than White teachers after controlling for the other characteristics, and those of other races were paid 0.9 percent less (95% CI 0.1% -1.7%). Some differentials were also found for certain job assignments, but these were very small (less than 1 percent).

Percent Highly Qualified

The percent highly qualified analysis uses school-level data to analyze the pattern of difference among schools in the percentage of core classes taught by highly qualified teachers. The equation results indicate that the base salary for teachers with a master's degree was highly correlated with percent highly qualified, while base salary for teachers with a bachelor's degree was not important. Existence of a signing bonus in the district contract was associated with a large negative disparity in percent highly qualified. Schools potentially offering a signing bonus had 17 percent lower percent highly qualified (95% CI 12% - 22%) than schools in districts without a signing bonus, after controlling for other factors. This result offers strong evidence that teacher compensation in these schools is too low to attract and retain highly qualified teachers, and that the signing bonus is insufficient to offset the disadvantage these schools face.

Other contract provisions were also associated with differences in percent highly qualified. Schools in districts that offered some reimbursement for college tuition increased highly qualified by 4.0% (95% CI 1.3% - 6.6%). This effect is quite large; it is likely that tuition reimbursement does not directly cause teachers to become more qualified, but rather that such payments signal a district commitment to invest in teachers' professional development. Provision of teacher housing and higher payments for health care are both associated with lower percent highly qualified. Since health care and housing represent important components of living costs, we interpret the negative associations as indicating geographic cost of living indicators that have a greater influence on the ability to attract and retain teachers than the value of the nominal staff benefits.

As expected, community characteristics were strongly associated with the percent highly qualified. Schools in communities with a single K-12 school had a 13.3% lower percentage of highly qualified teachers (95% CI 8.5% - 18.0%) after controlling for other factors. Small schools – defined as K-12 schools located in communities with a school-aged population less than 100 – had an additional 5.2 percent lower highly qualified (95% CI 1.3% - 9.0%) (We know that very small schools have teachers who teach multiple subjects and grades, so this lower percentage is not surprising). Lower percentages of minority students, road access, ferry access, proximity to Anchorage or Fairbanks for road-accessible communities, and lower air fares from the regional hub community to Anchorage or Fairbanks all were significantly associated with an increase in percent highly qualified. Less

regulation of alcohol was also associated with higher percent highly qualified. However, it is not clear whether that effect measures alcohol regulation per se or indicates differences in social conditions associated with community decisions to regulate alcohol.

Moves among Alaska schools

The results for teachers show a significant correlation between compensation and relocation decisions. The relative starting pay for teachers with the education level that the teacher possessed when he or she moved had a large positive correlation with moving decisions, while the maximum salary was negatively correlated, although with a much smaller effect. The maximum salary represents the lost opportunity for higher pay in the future if the teacher remains in the old place. Existence of a signing bonus in a place is associated with a lower likelihood of moving there, providing evidence that the signing bonus offers an insufficient increment to compensation to offset disadvantages of the place. Percent highly qualified also has a strongly negative effect. This suggests that lower performing schools influence qualified teachers to want to move to higher performing schools, increasing the difficulty of these disadvantaged schools to achieve highly qualified goals.

Job assignments and community characteristics have significant effects, indicating that working conditions and living conditions are also important factors in relocation decisions. As was the case with the percent highly qualified results, relatively lower percentages of minority students, road access, proximity to Anchorage or Fairbanks for road-accessible communities, and lower air fares from the regional hub community to Anchorage or Fairbanks were significantly associated with increased likelihood of moving to a community. Milder climate was also preferred.

Given the salary and community and school characteristics, moving from a non-classroom assignment to become a curriculum specialist or to take any classroom teaching position is strongly preferred. The results suggest that teachers prefer positions involving regular face-to-face contact with students even though the salary equations demonstrate that there is no difference in pay associated with these assignments. The differences between regular teacher, head teacher, itinerant teacher, and English as a second language teacher are not statistically significant from each other. However, secondary mathematics or science assignments are significantly less preferred. We interpret this finding as a reluctance of teachers who are not trained in mathematics and science to take jobs that require them to teach these subjects.

Part-time special education assignments are not preferred, but the results show that teachers are more likely to move to obtain a full-time special education position than to take other classroom teaching positions. We interpret this result as another piece of evidence for job queues caused by contract salaries not reflecting geographic differences in market conditions, rather than that teachers actually prefer special education assignments. Because special education positions are often more difficult to fill, teachers who are most anxious to change locations can more quickly do so by taking a special education position in a place they consider more desirable to live and work.

Job duration

This analysis uses length of job stay as a measure of the attractiveness of compensation, working conditions, and living conditions associated with the job. The results indicated that higher salaries, adjusted for inflation, significantly reduced turnover when other factors are equal. Unlike the case for the move analysis, the contract maximum salary was highly correlated with lower turnover, but the base salary had an insignificant effect. This adds support to the interpretation that the maximum salary represents the opportunity for higher pay in the

future if the teacher remains in place over the long term, while the base pay is more important for early career moves.

The analysis of job duration found only small differences in implied turnover for different job assignments after controlling for other factors. A regular classroom teaching assignment was associated with a statistically significant reduction in turnover. However, the magnitude of the effect on the annual hazard rate was less than 0.2 percent. On average, special education assignments had higher turnover, but variation among teachers made this effect not statistically distinguishable from random variation.

As with the other analyses, larger communities, those with a milder climate and lower percentages of minority students, and more accessible communities had significantly lower turnover. In particular, road access, ferry access, commercial jet air service, proximity to Anchorage or Fairbanks for road-accessible communities, and lower air fares from the regional hub to Anchorage or Fairbanks all reduced turnover.

Salary schedule development

The quantitative analysis estimated, for each community, the minimum districts would have to pay teachers in order to meet their staffing needs on three measures:

1. attract enough teachers to fill positions
2. retain teachers already working in the district
3. ensure those teachers that they attract and retain are highly qualified for their jobs

The analysis of all three measures generates relative outcomes for schools; however, the highly qualified measure can be associated with an absolute standard that can be used as the base for an overall salary schedule. Because the salary for teachers with a master's degree explained the variation in the data for the highly qualified model, the salary schedule was designed from the pay rate for a beginning teacher with a master's degree.

For the highly qualified measure, we used the results of the analysis to calculate, by community, how much the reference teacher would need to be paid for schools in the community to have 100 percent of their teachers highly qualified.

The analysis also looked at whether communities did indeed have highly qualified teachers. A few communities paid more than the model predicted they would need to pay; i.e., equation (5) generated a compensation level achieving 100% highly qualified that was lower than their district's starting salary for teachers with a master's degree. Many communities did not pay enough. One set of communities emerged as paying what the model predicted they would need to (but not more) and also were able to recruit and retain enough highly qualified teachers to fill their positions (meaning, these communities met the three measures). Those communities were the "central" Mat-Su School District communities of Wasilla, Palmer, Meadow Lakes, Big Lake, and Houston. In addition, in the other two models, the Mat-Su district also met the designated measures: turnover is generally less than 10 percent each year, and teacher move data indicates that it is among the preferred districts for teacher moves.

Based on this analysis, it appears that Mat-Su School District is paying enough to attract teachers to teach in schools in their central communities, but not more than they need to. Anchorage, typically used as the 'base' for Alaska indices, was neither predicted by the equations to achieve 100 percent highly qualified teachers, nor did the district actually do so. Taken together with the job duration (turnover) and teacher moves, our analyses indicated that Anchorage would have to pay about 10 percent more than they currently do, and about 13 percent more than the Mat-Su District. This likely reflects a number of factors, including the increasing challenges that Anchorage faces around educating immigrants, English language learners, and students in poverty, as well as the relatively lower housing costs and high community amenities of the Mat-Su area.

We have translated this analysis into a salary schedule using a step and lane model. From our review of the literature, we note that it would be ideal to link salaries with student learning outcomes, but to date, no one has produced an effective and efficient way to do this. The step-and-lane model is efficient, has some empirical support, is the familiar base that generated data for our analysis, and was the preferred model for most stakeholder groups; thus the step-and-lane model was selected to meet the need for an evidence-based recommendation.

In particular, we used the most recent Mat-Su schedule (2014) included in the data analysis, scaled up to the level our analysis found would allow the Anchorage school district to attract and retain highly qualified

teachers. Although this is about a 13 percent increase in the schedule, because Anchorage salaries were somewhat higher than the Mat-Su salaries, the increase over the ASD salaries was only about 10 percent.

Table 1. Proposed base step-and-lane salary schedule for Alaska teachers

STEP	B	B+15	B+30	M B+45	M+15 B+60	M+30	M+45	D
0	\$51,719	\$53,988	\$56,257	\$58,527	\$60,795	\$63,066	\$65,338	\$67,608
1	\$53,988	\$56,257	\$58,527	\$60,795	\$63,066	\$65,338	\$67,608	\$69,880
2	\$56,257	\$58,527	\$60,795	\$63,066	\$65,338	\$67,608	\$69,880	\$72,147
3	\$58,527	\$60,795	\$63,066	\$65,338	\$67,608	\$69,880	\$72,147	\$74,416
4	\$60,795	\$63,066	\$65,338	\$67,608	\$69,880	\$72,147	\$74,416	\$76,686
5	\$63,066	\$65,338	\$67,608	\$69,880	\$72,147	\$74,416	\$76,686	\$78,954
6	\$65,338	\$67,608	\$69,880	\$72,147	\$74,416	\$76,686	\$78,954	\$81,224
7	\$67,608	\$69,880	\$72,147	\$74,416	\$76,686	\$78,954	\$81,224	\$83,494
8		\$72,147	\$74,416	\$76,686	\$78,954	\$81,224	\$83,494	\$85,764
9			\$76,686	\$78,954	\$81,224	\$83,494	\$85,764	\$88,035
10				\$81,224	\$83,494	\$85,764	\$88,035	\$90,305
11					\$85,764	\$88,035	\$90,305	\$92,573
12						\$90,305	\$92,573	\$94,843
13						\$92,573	\$94,843	\$97,115

Differentials can be applied to align compensation to community characteristics.

Salary differentials estimation

There are two types of differentials that we were asked to calculate: community differentials and position differentials.

Estimation of community differentials

As described above, we used data on teacher assignments, teacher moves, district characteristics, and community characteristics to estimate the effect of salary, district characteristics, and community characteristics on teachers’ decisions to stay in districts, move between districts, or leave teaching in Alaska. We also looked at the effect of those factors in districts’ ability to fill their teaching positions with staff who met Highly Qualified criteria for their assignments. For each community, we averaged the differentials calculated by each of the three approaches. We then grouped the communities into their districts, and considered the size of the variation in differentials between the communities.

The table on the next page summarizes the results by district. In all the multi-community districts, the differences between the communities were significant. The district with the least variation, Delta-Greely, showed a 10 percentage point variation. The district with the largest variation, Kodiak, showed a 75 percentage point difference.

Table 2. Teacher salary community differentials by district

District name	Pay relative to proposed Anchorage pay schedule		Proposed pay relative to current pay	
	Same differential across district	Community differentials varying across district		
		Lowest	Highest	
Alaska Gateway		1.28	1.68	55%
Aleutian Region		1.54	2.01	60%
Aleutians East		1.22	1.64	43%
Anchorage	1.00			10%
Annette Island	1.01			17%
Bering Strait		1.45	1.66	62%
Bristol Bay	1.27			42%
Chatham		1.13	1.33	42%
Chugach		1.16	1.40	60%
Copper River		1.26	1.70	61%
Cordova City	1.06			24%
Craig City	1.03			23%
Delta-Greely		1.14	1.24	37%
Denali		1.06	1.37	40%
Dillingham	1.28			44%
Fairbanks	0.85			-6%
Galena	1.26			20%
Haines	0.94			13%
Hoonah	1.22			47%
Hydaburg	1.14			45%
Iditarod		1.37	1.79	63%
Juneau	0.88			-3%
Kake	1.10			29%
Kashunamiut	1.43			66%
Kenai Peninsula		0.93	1.40	14%
Ketchikan	0.89			2%
Klawock	1.05			25%
Kodiak Island		1.11	1.86	33%
Kuspuk		1.35	1.93	53%
Lake and Peninsula		1.40	1.75	68%
Lower Kuskokwim		1.14	1.78	42%
Lower Yukon		1.42	1.55	60%
Mat-Su		0.88	1.20	1%
Mt Edgecumbe	0.91			12%
Nenana	1.28			50%
Nome	1.23			28%
North Slope		1.44	1.97	63%
Northwest Arctic		1.25	1.74	53%
Pelican	1.66			105%
Petersburg	1.07			26%
Pribilof		1.49	1.75	57%
Saint Mary's	1.43			66%
Sitka	0.91			-1%
Skagway	1.03			25%
Southeast Island		1.06	1.70	48%
Southwest Region		1.22	1.68	66%
Tanana	1.54			88%
Unalaska	1.41			53%
Valdez	1.00			17%
Wrangell	1.02			16%
Yakutat	1.12			26%
Yukon Flats		1.52	1.83	78%
Yukon-Koyukuk		1.41	1.71	39%
Yup'it		1.43	1.56	66%

Districts with multiple communities saw from 10 to 75% differences in their community differentials. Implementing a single schedule with community differentials would increase salary costs for most districts.

Estimation of position differentials

We used the same data sets and the turnover and move models that generated the community differentials to look at differentials for hard-to-fill positions – secondary science, secondary math, and special education.

Evidence to support a differential for math and science is weak. Using the turnover model, we did not find any meaningful difference between those positions and other teaching positions. Using the move model we did find a differential that indicated moving from a non-math/science position into a position teaching math or science was associated with a negative value, but the 95 percent confidence interval for the math/science position overlaps that of the regular teacher without the math/science assignment. The wide confidence interval; the fact that it was associated with a move between a non-science/math and a math/science position; and the fact that the turnover model did not find any position differential may indicate that the differential we found is associated with job moves for a teacher not qualified in the subject. At this time, we cannot recommend implementing a position differential for math or science.

Modeling a special education differential revealed a different set of problems with confounding issues. In the move model but not in the turnover model, full-time special education positions were associated, on average, with a positive differential - that is, that teachers would take less pay to fill those positions. This contradicts the experience of district administrators, and also does not explain why special education teachers stay in their communities at rates similar to other teachers, but are much more likely to leave their special education positions.

We hypothesized based on qualitative data that teachers are becoming qualified for and taking special education positions to get or move into a district where they would otherwise be unable to secure a position. Once in their preferred location, the return to general education. While a special education position differential might be useful in attracting and retaining special education teachers, we would need to collect additional data about teacher qualifications and create new models to produce a reliable amount.

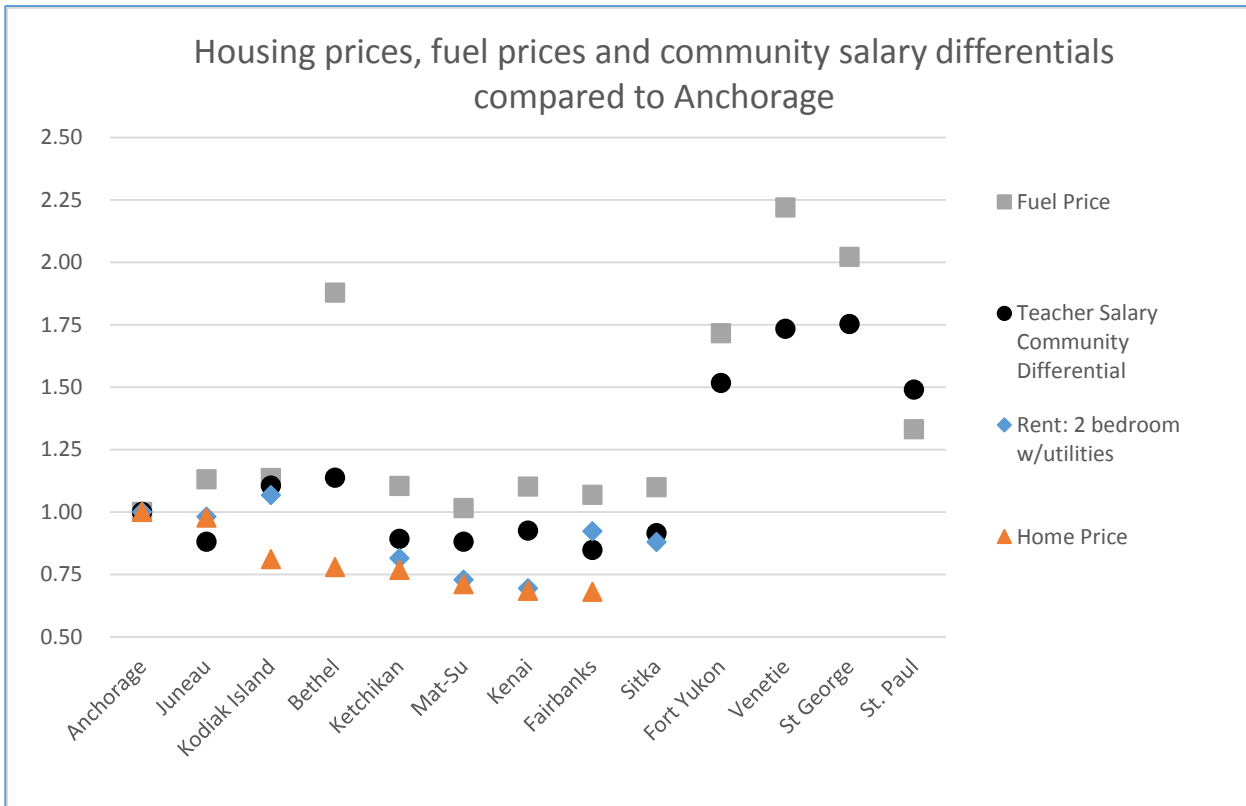
Cost of living and the community salary differentials

The calculated salary differentials reflect the amount of salary teachers would need (on average) to be compensated for many different factors. These include climate, remoteness, and other community characteristics including cost of living. In Alaska, the cost of living varies widely from community to community, and there is no generally accepted measure that covers all communities. Most cost of living estimates are based a standard “basket” of goods, including food, housing, and other supplies and services. Costs for different items are not uniformly high in high-cost communities, or low in low-cost communities. Fairbanks, for example, has heating costs much higher than Anchorage, but housing prices are substantially lower. While there are always differences within and between communities, in Alaska these are more pronounced. For example, estimating the cost of food using market-purchased beef and farmed produce does not accurately reflect the costs to rural residents in a subsistence economy. Complicating the picture further, teachers may or may not participate in that subsistence economy.

The graph below illustrates fuel and housing prices relative to Anchorage for several Alaska communities. Data on rent and home prices is from the July 2015 Alaska Economic Trends; Fuel prices are from the Alaska Energy Data Gateway.

In summary, while data related to cost of living are included in our community salary differential analysis, there are many other factors as well. The differential is specific to teaching jobs, and would not be an appropriate differential for health care workers or other occupations.

Figure 1. Selected price and salary differentials



Community salary differentials for teachers include more factors than cost of living indices, and in any community, some indicators are higher than our differential, some lower.

Superintendent duties

Deliverable: Describe the position of superintendent with Alaska school districts, how superintendent duties differ across school districts in Alaska, and how superintendent compensation is currently determined. Develop a list of alternative methods for determining superintendent compensation.

As with the classified staff positions, there was also interest in having us develop a statewide salary schedule proposal for district superintendents alongside schedules for teachers and principals. This was not possible because there are too few superintendents to allow for modeling and analyses to develop a single salary scale. Moreover, the roles and responsibilities of superintendents vary too widely across Alaska's diverse school districts. Instead, we describe the broad variation in the way superintendents jobs are structured across the state. To do this, we interviewed 44 of Alaska's 53 superintendents about what they have direct responsibility for versus what they delegate, what kind of administrative support they have, and what is unique about being a superintendent in their district. While we did not speak with every superintendent in the state, we did talk with superintendents from a broad range of districts, from the leader of the largest district in terms of enrollment, over 48,000 students, to the smallest district with just 13. We talked with superintendents from the largest districts geographically as well as the most isolated. And as we talked with them, we found even more diversity in their roles and responsibilities than expected.

Nationally, the role of the superintendent is to manage the day-to-day affairs of the school district, and work with the school board to implement their policies. Superintendents are responsible for developing regulations for school district operations, preparing and managing the district budget, making sure the district curriculum meets district and state standards, overseeing student achievement, and serving as liaison to policymakers including local elected officials and the state legislature as well as to the public. Superintendents are hired by, and serve at the pleasure of the school board. In Alaska, superintendents often take on additional roles and responsibilities to those described above. The enormous variation in the size (both in terms of enrollment numbers and geography) and the structure of Alaska districts can have a significant impact on how a superintendent's job is structured, as is described below.

First, we provide a bit of context. Alaska school districts are quite diverse in terms of size of enrollment as well as geographic size, and the ethnic, linguistic, and economic composition of the student bodies. Districts can be grouped into four categories based on student enrollments: large, medium, small, and very small. The largest districts – Anchorage, Kenai Peninsula Borough, Mat-Su Borough, and Fairbanks North Star Borough School Districts – have between 9,000 and 48,000 students. These four districts are also “on the road” between Southcentral and Interior Alaska. The next group of districts, medium, enrolls between 1,000 and just under 5,000 students. Twelve districts fall into this range. The small districts have between 100 and 900 students. There are 32 districts in this group, the largest category. Finally, there are five very small districts enrolling between 13 and 86 students.

Several district offices are not located within the physical boundaries of the school district, but are rather located in nearby hubs or cities, including Chugach School District (in Anchorage), Yukon Koyukuk (in Fairbanks), Aleutian Region (in Anchorage), Southwest Region (in Dillingham) and Lake and Peninsula (in King Salmon).

The structure of district offices and superintendent responsibilities vary on a number of factors, including whether or not there are assistant superintendents and directors for different areas (e.g., Curriculum, Special

Education, Facilities, Human Resources, Assessment, Business Officers, and so on), and around how many hats superintendents themselves wear, from serving as Directors of Special Education or Federal Programs to holding multiple school administrator roles (such as being both principal and superintendent, principal/counselor and superintendent, or even teacher and superintendent). In addition, some of the districts contract out some of the administrative duties, in particular business office and accounting, as well as special education and technology.

Generally, superintendents in the larger districts have multiple directors and/or assistant superintendents in their central offices. They described spending a lot of time on public and political relations, working with the school board, dealing with crises, and meeting with administrators in the district, from directors to principals. Those in medium districts have a handful of directors, but also tend to pick up a few of the direct oversight responsibilities for which larger districts have intermediary (director level) administrators. Those in small and very small districts end up wearing the most varied hats in district operations. For example, eight superintendents in our study are also the Special Education Coordinator for their district. Five superintendents we talked with are also principals. In some cases they were the only principal as well as superintendent in the district, while others oversaw principals for some schools in their district but served as principal for others. One of these superintendents oversees two districts in addition to serving as a principal in one of the districts. Several superintendents described creative ways of managing responsibilities, from having principals also wear numerous hats such as testing and assessment or federal programs to, in one case, sharing central office staff between two districts.

Administrative support for superintendents also varies considerably. Many have part-time administrative assistants who also support the district school board (nine mentioned this specifically). At least three share their administrative assistants with schools or with other divisions of the district. And a few have no administrative assistant at all.

An issue several superintendents pointed out is that compliance and paperwork requirements are the same across all districts, regardless of size. Superintendents in small districts often have little or no support (either at the managerial level or from administrative assistants) for meeting these requirements, and have to complete the paperwork themselves. One superintendent talked about how there were times when paperwork just did not get done, because of all the other duties that had to be fulfilled.

Regardless of the size of their district, superintendents have to manage external relationships both with the community and with local and state policymakers. However some of the superintendents in the smaller districts talked of having to forego participation in the superintendents' meetings in Juneau or in other statewide gatherings and activities because of district demands.

Superintendents described having to be adaptable and several noted that that there was no such thing as a typical day or set of duties, especially those working in smaller and more remote districts. One superintendent talked about "other duties as assigned," which means dealing with whatever comes up, whether it be moving freight that has arrived when no one else is around, helping with shipping supplies out to schools, ordering food for in-service meetings, or taking the garbage out. Another superintendent in a very small district said that she had driven the school bus and cleared clogged toilets, while another also in a very small district described having to travel with students as a chaperone because there were not enough parents or teachers to do this. Another superintendent talked about having to know load bearing maximums for snow on building roofs.

The information we gathered from superintendents across Alaska confirms that their roles and responsibilities vary considerably, and in many cases their jobs are quite idiosyncratic, determined by the unique needs of their particular districts.

The salaries for superintendents also vary considerably in Alaska. In 2013-2014, for those who had positions listed at 100% FTE (e.g., excluding those who had superintendent/principal or other split positions), the range was \$88,888 to \$180,000, meaning that the high end of salaries is more than twice that of the low end. The salaries are not necessarily correlated with the roles superintendents play, nor the type or location of the district within which they work. Salaries are set by the school board, typically in consultation with the Association of Alaska School Boards, which provides support for most superintendent searches in the state. Superintendent turnover has been quite high across Alaska in recent years. In 2014-2015 school year 15 of the 56 superintendents were different than the prior year, and several additional superintendents retired or were removed from their positions at the end of spring 2015. Already in fall 2015 it was announced that the superintendent of the state's largest district will not be continuing in that role in 2016-2017.

The inconsistency in responsibility and pay for Alaska school district superintendents could prove problematic for attracting new candidates to superintendent vacancies, especially without more competitive salaries. Alaska's superintendent salaries are, overall, not competitive with those for outside positions. Nationally, in 2010-2011, the average superintendents' salary was over \$161,000 with salaries of \$225,000 often seen in districts with over 25,000 students.

Benefits

Deliverable: Prepare a list of different benefit options school districts offer their employees and their associate costs. Such options can reflect those commonly offered by districts already and others that CAEPR researchers deem valuable, or wise, or otherwise important.

In addition to salary, benefits are an aspect of teacher compensation that districts can use to make jobs more attractive. They may provide easily monetized compensation such as paying a greater share of the employees' health insurance premiums. They may provide more generous leave policies, tuition reimbursement, better life insurance, or opportunities to earn bonus pay. There is a broad range of benefits provided to teachers by districts, and these are detailed in Appendix C.

Although all teachers receive retirement benefits, these are not a part of the negotiated agreements. Teachers are part of the state-run Teacher Retirement System (TRS) which is determined wholly by the state. In order to understand the range of benefits provided to teachers across the state, we analyzed collective bargaining agreements from 47 (87%) of Alaska districts. All districts provide health insurance for their employees, but the amount that teachers have to contribute toward health costs varies considerably. At least 22 districts cover full premium costs for both teachers and their spouses and dependents (another did not specify whether family members were covered at district cost or employee cost). About 24 districts cover at least 80% if not more of health insurance premiums for teachers. Thirty-nine districts provide some form of life insurance; the amount offered varies considerably.

All districts provide teachers with personal leave days. These vary by the total number of days a teacher receives annually as well as in how many leave days a teacher can accrue in total and whether or not they are paid full salary or salary minus the cost of a substitute teacher for those days. The majority of districts give three to four days of annual leave, with just a couple giving significantly more.

Fifteen districts provide some sort of travel support for teachers, ranging from a \$150 stipend to travel worth several thousand dollars. Only six districts provide a moving allowance for new teachers, ranging from "as pre-approved" to \$5000. A disincentive to providing moving expenses is that the state requires districts that provide a moving allowance to new educators to also cover the cost of teachers leaving the district if the teacher is leaving involuntarily (e.g., has not had his or her contract renewed or if his/her job has been eliminated).

At least ten districts offer some amount of tuition reimbursement. Many districts offer this only for recertification although some support graduate programs as well. In addition, one district reimburses half the cost for teachers who attain National Board Certification⁴.

Nine districts provide housing to teachers; how much they charge and the degree to which they subsidize these rents varies widely. Six districts provide district housing to teachers or, if they are not in district housing, a subsidy for rent or fuel costs. Three districts provide housing subsidies but do not offer any district lodgings.

⁴ Two districts offer salary increases of \$2000 for attaining National Board Certification. While this could be considered a benefit, it shows as compensation in our data.

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Some districts provide a longevity bonus to teachers who stay for a minimum number of years, which varies from six to ten or more years.

There are a few additional benefits that just are offered in one or two districts, such as bulk goods delivery or gym membership.

Tenure

Deliverable: Provide recommendations to DOPLR regarding teacher tenure policy that is based on research. Part of the research CAEPR will be expected to conduct is surveys assessing how different stakeholder groups perceive tenure.

Research tasks

To provide recommendations around tenure, we first needed to describe tenure and explore the various ways it has been implemented. We further needed to analyze how much tenure is worth to teachers, and to describe public and stakeholder opinion around current and potential tenure options. Data were collected using focus group interviews, key informant interviews, and an electronic survey.

Defining tenure

Tenure is a term used to describe job protection after an employee has passed a probationary period. When applied to public school teachers, tenure is often perceived as protecting teachers from being fired for any reason. This is not an accurate perception; however tenure does place a greater burden on administrators seeking to remove teachers. Corpus Juris Secundum, a legal encyclopedia, provides the following definition for tenure:

“Tenure statutes are designed to protect teachers against board action or actions of supervisors which are arbitrary, capricious, unjust, or politically motivated. ... [S]uch legislation has been said to be fundamentally in the public interest, the purposes of tenure laws being to achieve permanency in the teaching force, to preserve the integrity and freedom of the educational process, to insure a competent and efficient school system, to establish a uniform system of permanent contracts for all schools of the state, and to obtain a better education for the children” (78 C.J.S. Schools and School Districts § 334, 2008).

In short, when teachers earn tenure, they cannot be fired or laid off without cause. However, cause for layoff or dismissal includes budgetary as well as performance issues.

Tenure’s historical origins

The first tenure laws were created in 1886 in Massachusetts. Before that, teachers were appointed annually, and tenure was created to benefit schools and students by limiting personal and political influences from impacting teacher hiring. By 1975, 46 states and the District of Columbia had tenure laws to provide eligible teachers with continuing employment status, just cause for termination, and specific procedural safeguards. The intent is to prevent teacher dismissals based on personal, political or cost-saving reasons.

Current context for tenure

In the US, the majority of states have a 3-year probationary period before teachers can earn tenure. However, in the past few years tenure has been in the public eye. Three states – Florida, Kansas and North Carolina – have eliminated tenure, and more states are requiring teacher performance evaluations to be included in tenure decisions. High-profile lawsuits in California and New York have alleged that tenure policies impede student learning by requiring districts to retain ineffective teachers. Some of the public perceive that tenure threatens teacher quality by making it impossible to fire bad teachers. These perceptions have spurred tenure reform policies in different states.

Empirical studies of tenure

One of the objectives of tenure is to retain high-quality teachers, which means teachers must be evaluated in some way. Measuring teacher effectiveness is difficult because so many factors are a part of “good teaching” and student achievement is linked to many different factors as well. In recent years, reform efforts have focused on teacher evaluations, and including these in tenure decisions. Nationally, principal observations of teachers in the classroom is the primary way teachers are evaluated, and research shows that this is an effective way to identify low-performing teachers.

The probationary period is meant to allow districts time to evaluate a teacher before making a long-term hiring commitment. The research shows that few low-performing teachers are let go within the probationary period, and this is attributed to teacher shortages (there are not more qualified teachers available to fill vacancies), inadequate evaluations, and the general discomfort of firing someone (it makes administrators uncomfortable, and some avoid doing it). A low-performing teacher can be dismissed after due process.

Even though the challenges of dismissing bad teachers is the hot topic with tenure, tenure is intended to help schools retain good teachers. This is a difficulty for schools across the US and in Alaska too. Tenure is only useful in retaining good teachers to the extent that they themselves value it. Research on teacher labor markets suggests that teachers consider tenure policies in their employment choices. Where tenure periods are longer, states compensate by raising salaries in order to attract teachers.

Tenure in Alaska

Teacher tenure laws in Alaska predate statehood. Current requirements for teachers to attain tenure status in Alaska are defined in AS Sec. 14.20.150. In Alaska, a teacher acquires tenure rights on the first day of his or her 4th consecutive year of teaching in the same school district, as long as the teacher received a satisfactory performance evaluation the prior year. Tenure in Alaska does *not* mean a teacher cannot be dismissed. Rather, it means that the district must demonstrate that it has a legitimate cause for firing a tenured teacher. There are a number of situations in which a tenured teacher can be fired including: incompetency, immorality, or substantial noncompliance; if the teacher fails to make progress after being placed on an improvement plan; or if the teacher loses his/her state certification. A teacher can also be laid off for budgetary reasons. Teachers who will be fired or laid off must receive written notice, and are entitled to a due process hearing before the school board. The process for teachers is different than most other public employees, who can usually be dismissed when an employer finds legitimate cause. However, legitimate causes for these employees are also typically defined in their collective bargaining agreements, contracts, or employer’s policies.

Calculating the dollar value of tenure

To figure out what tenure is worth, we asked teachers what they would be willing to exchange (financial incentives) to

- give up tenure
- to switch from tenure to 5-year contracts
- to extend the probationary period

It is worth noting that sometimes teachers give up tenure voluntarily when they take a different job in a new district. (Tenure does not transfer between districts in Alaska.) Sometimes teachers will take a more desirable job in a less desirable place, and vice versa. Our analysis also reviewed DEED data on teacher moves between positions in state.

365 teachers completed the instrument. Though this reflects only a small percentage of all teachers in Alaska (less than four percent), the demographics of survey respondents were similar to demographics statewide (considering gender, race, ethnicity, tenure status, education level, years of teaching experience, age, and urban/rural location). Thus the sample seems to represent teachers in Alaska on key features.

How teachers responded to these questions differed by some demographic features. Overall, teachers prefer the current system to the options presented, but were more likely to accept compensation for increasing the time to tenure to 5 years than the other two options. The average teacher would require a salary increase of 23%, or about \$16,000 per year in order to accept this change. The average teacher would need more than a 50 percent salary increase to accept either of the two more fundamental reforms. However there was a significant range in responses, which illustrates the sensitivity of the value to the specifics of the situation.

In all cases, though, these analyses suggest that Alaska teachers regard tenure as a significant employee benefit. As long as Alaska imports teachers from other states, those states' salary and tenure policies will affect how much Alaska districts have to pay, and at the moment, most states still offer tenure similar to Alaska's current system. Moving to any one of the hypothetical options we analyzed might not have a large immediate effect on teachers deciding to leave the state or the profession. However, over the long term, school districts could find themselves having to pay significantly more than they currently do to attract and retain qualified teachers, especially if either of the more fundamental reforms is implemented.

In sum, if Alaska's tenure policy is made more restrictive, districts will need to pay teachers more in order to compete with other states who are also trying to attract teachers.

Public opinions about tenure

As noted in the literature review, many states' changes to tenure policy in the past decade have been spurred by public opinion. Thus, as Alaska considers what to do with its own tenure statute, understanding how it is regarded provides valuable context for legislative conversations.

Our data indicate that different stakeholder groups (teachers, principals, superintendents, school board members, school business officers, other school employees, parents, students, and community members) have different perceptions about tenure. However, when we tested their tenure knowledge, even in the realm of individuals who work within k-12 schools, about 25% demonstrate fundamental misunderstandings of the tenure system. So it is important to keep in mind that public opinion is in part based on some misunderstanding.

In its historical context and in the literature, tenure is intended to serve discrete purposes. In general, parents and teachers see tenure as more effective in meeting certain goals and objectives than other groups. Across all stakeholder groups, there seems to be consensus that tenure does help meet goals of retaining teachers in the profession, allowing teachers to disagree with administration, and protecting both teachers' rights and academic freedom. Excluding teachers and parents/students/community members, there is general agreement that tenure does not contribute to cost effectiveness, facilitate learning, retain good teachers in the profession of teaching, or ensure district or administrator accountability. These responses do not mean that tenure works against these objectives, but rather the stakeholders perceive that tenure does not help meet them.

There is little support among survey respondents for changing the mechanisms by which teachers earn tenure from the current guidelines. Superintendents, school business officers, and school board members moderately support giving more control to local districts in setting tenure policies, and school business officers show

modest support for including test scores and peer evaluations in tenure decisions. Eliminating tenure does not have wide support either. Some superintendents and school business officers supported eliminating tenure, but some of their peers were opposed, and principals, parents, teachers, students, and community members generally oppose eliminating tenure.

In focus groups, we heard “horror stories” about seemingly arbitrary and capricious dismissals of teachers pre-tenure, and about tenured teachers who were no longer teaching well. That said, the majority of superintendents and principals agreed that Alaska’s tenure law does not prevent dismissal of teachers; it instead requires administrators to properly monitor employee performance and document systematically any problems. Those who had been through the process of dismissing a tenured teacher noted that it is a doable process.

In sum, though the public has strong opinions about tenure, these are based on some significant misconceptions. There is little support for changing current tenure policy in Alaska.

Certified and classified labor markets

Deliverable: Describe the similarities and differences between the certified and classified labor markets in Alaska. CAEPR is expected to describe the labor market for related service providers in Alaska.

There are few similarities between labor markets for certified and classified personnel.

Teachers and principals are hired from statewide job fairs and postings. A district trying to fill a classroom teaching position in one community in Alaska, for example, has to compete against all the other districts trying to fill similar positions at the same time, and to some extent against districts in other states hiring from a national labor market.

Teachers looking for work are typically only looking for work in school districts. Looking for work outside school districts essentially means shifting occupations. Consequently, it makes sense to compare teaching jobs in one community to teaching jobs in other communities as a method of determining whether salaries in a particular district are too high, too low, or about right.

Classified personnel, on the other hand, are typically hired from a local labor pool. A district trying to fill a classified position generally has to compete against other employers hiring administrative, maintenance, or clerical personnel, as these occupations exist in many other industries. Few people will be looking for a classified position in a community where they do not currently live unless they already plan to move to another community. That said, in smaller communities, the school is often the main employer, making it next to impossible to determine in practice whether salaries for classified positions are high or low relative to similar positions at other employers.

Related service providers are those individuals providing support services to special needs students, such as speech pathologists or occupational therapists. Districts report that recruiting and retaining related service providers is challenging. This is especially true in small, remote districts that may only have a few (or one) student needing a particular service, and no local market providing such services. As a result, rather than hiring from an “Alaska labor market” for related service providers, districts participate in local and national labor and professional contract services markets. Service providers may be district employees or local contract services in or near population centers. A few are part-time employees of more than one district. In other areas, personnel services firms (some Alaskan, some based elsewhere) contract with districts to send service providers on an itinerant basis as needed. Finally, some students are provided services via distance, over the Internet or teleconferencing technology. Districts change their mix of employees and contractors, face-to-face and distance delivery, as district needs and available local services change.

Summary and recommendations

The issues around teacher salary levels and tenure are complex. Because education is such a large component of state and local spending, and teacher salaries are the largest component of education budgets, decisions around teacher compensation have a large effect on state and local budgets. Recognizing the importance of the issue, the Alaska Legislature tasked the Alaska Department of Administration with advising the legislature on teacher compensation and tenure. This report is part of that effort.

In this report we tried to model an appropriate teacher base salary and additional compensations for some communities. We also examined teacher tenure and modeled its value to teachers, compared to specific alternatives. To help policymakers understand the context for their decisions, we also included stakeholder perceptions on these issues, and developed district profiles to show the variety across Alaska districts of needs, priorities, and solutions.

The responsibility for determining whether the state should adopt a single teacher salary schedule or modify tenure lies with the Alaska Legislature. We provide here recommendations based on our research findings, but hope that these simply spur more dialogue among legislators, educators, and stakeholders on how best to address the needs of Alaska's schools and students.

Teacher salary schedule

We do not recommend that a single teacher salary schedule be adopted by the state at this time. Salaries based on such a schedule, with appropriate community differentials, would cost more than current teacher compensation. The base salary schedule was set at a level that our analysis indicates would allow the Anchorage School District to attract and retain highly qualified teachers. We calculated differentials that range from 0.85 to 2.01. If our models were implemented statewide, salary costs would increase by approximately 15 percent across Alaska, while individual district salary cost changes would range from a 6% decrease to a 105% increase. For some districts, the costs of implementing those salaries would be prohibitive.

In addition, because these differentials would result in many salaries well outside the current range, we feel that while they accurately reflect teachers' preferences, we cannot be sure that implementing them would actually result in rural districts being able to attract and retain qualified teachers. Teachers decide where to work, and whether to stay or leave their school and district based on many factors in addition to salary. Improving working conditions, housing, or professional development might prove as important to attracting and retaining teachers as raising salaries.

If the legislature chooses to implement a single salary schedule for teachers, we can only recommend using a step-and-lane schedule. There is considerable interest in performance-based pay, but Alaska does not yet have sufficient data from the new teacher evaluation system to use that approach, nor has such a system been shown to work successfully in the Alaska context. In addition, we recommend that draft schedules and cost differentials be shared with stakeholders, and that policy makers include their feedback on those drafts when creating a final proposal.

We recommend further research around how to create an effective merit-based system, potentially including rigorous experimental designs that compare teaching effectiveness and learning outcomes for teachers working in different compensation models. There are examples of performance-related pay initiatives in Alaska. In the Chugach School District, teachers' base salary is determined by a step-and-lane schedule. However, that is only a part of the compensation system. Performance pay and benefits are the other major

pieces, in what the superintendent describes as a “hybrid” system. Teachers have chosen not to take any increase on the base salary schedule for 6 years and instead have asked to put more funds into the performance-pay component, which is related to teacher evaluation. That said, the Chugach School District system is not a “true” merit pay system where teachers receive individual bonuses based on evaluations of individual teachers’ impacts on student learning outcomes. Rather, as is described in more detail in Appendix B, it is a system in which all teachers receive the same performance pay based on the average of all teachers’ evaluation scores.

Teacher tenure

Alaska policymakers have many options for teacher tenure policy. They could leave it as is. They could change the probationary period (the time it takes to earn tenure) by lengthening, shortening, or making the timeline flexible, like that for university faculty. Another option is to allow districts to set their own tenure policy rather than keeping it as a statewide policy decision. Legislators could require tenured teachers who receive an unsatisfactory performance evaluation to return to probationary status for some period of time until their performance has improved. And of course policymakers could choose to eliminate tenure altogether.

Though states across the US have made significant changes to tenure policy, there is not yet enough data about the effectiveness or the unintended consequences of such changes to make an empirical recommendation. However, it should be noted that states that changed tenure policy to make it more restrictive, unlike Alaska, are not places that generally have difficulty recruiting qualified teachers.

We do not recommend that the Alaska teacher tenure system be modified at this point for two reasons. First, tenure is an effective non-monetary form of compensation; that is, we can pay teachers less if they can earn tenure. Second, the greatest concern about the current tenure system is that it does not adequately identify under-performing teachers early in their career. We recommend that the legislature re-visit the tenure policy question after assessing how well districts’ new teacher evaluation systems accomplish that.

Final thoughts

Given the high salary costs that our models indicate are needed to attract and retain high quality teachers in some of our most rural and remote communities, we suggest that stakeholders and policymakers consider other, less costly approaches both to attract and retain teachers, and also to provide rural education. Do we continue with the same model we have had in place for nearly forty years, or do we think differently and perhaps more creatively? There are many options being discussed or piloted across the state, from hybrid learning opportunities with greater use of distance technologies, to more flexible mixing of short term boarding school experiences with in-village schools. There are also experiments underway around how better to attract young educators to the state (such as providing student teaching and technology-based tutoring opportunities for students in outside universities to work with Alaska students), and to find more effective ways to enable local citizens to become teachers. Given the state’s current and future fiscal challenges, the status quo is not going to suffice for our rural schools.