

EDUCATOR QUALITY
AND QUANTITY

EqQ



A project of

**Citizens for the Educational
Advancement
of Alaska's Children**

CEAAC

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Executive Summary

This study presents a model for systemic change in Alaska's education system to improve the quality of Alaska educators and the number grown in Alaska. The model was built from interview data from education leaders, analyzed using a rigorous approach of coding and identifying commonalities, and a broad review of previous research.

We describe the problem of Alaska's imported education workforce, establish measurable goals to address the quality and quantity of Alaska educators, and outline 16 recommendations with implementation steps to meet these goals. The project would strengthen the K-12 certificated workforce by ensuring advanced skills and cultural relevance are intertwined in the preparation and development of our teachers and administrators.

The goals of the model are two-fold:

- Expand the Alaska-grown workforce to 60% of new hires by 2025; and
- Retain and develop the education workforce so that 90% achieve a high professional standard for Alaska service, measured by the tools then in place, by 2025.

Currently, two thirds of new educators are hired outside the state. Our first goal flips that ratio, using a wide definition of Alaska-grown. The second goal calls for development and retention of our current educators across the state at a level that will assure stability and improvement to rural and urban schools.

To accomplish these goals, recommendations are presented in the areas of educator preparation, recruitment, professional development, and retention. Implementation of the recommendations requires commitment from many agencies connected to the education system, including the Alaska Legislature, the Alaska Department of Education & Early Development, the University of Alaska, the Alaska Commission on Postsecondary Education, school districts, professional organizations and CEAAC.

If implemented as a systemic approach, the strategies in this report will transform the Alaska education system and create a virtuous cycle of improvement for educators, students, our citizens and leaders.

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Section 1: Introduction

Alaska's colonial past survives in the way we run our education system. We export our most valuable resource, our brightest students, without the value-added processing of higher education. We import teachers and administrators to fill professional jobs educating our kids—imported educators who often don't last long in their jobs. We should commit ourselves to transforming our own children into the world's best educators, creating a generation of Alaskans to prepare future generations of Alaskans for success. Instead, we have allowed our educator workforce to erode. But Alaska is not a colony anymore. By seizing the challenge of educator quality and quantity, we can choose our own future.

Improving teaching will lead to a virtuous cycle of schools that prepare more talented teacher candidates. Alaska's K-12 education system currently produces too many students unready for college or career. Only about 40% of Alaska's high school graduates attended postsecondary institutions in 2012, compared to 68% nationally.^{1, 2} In 2013, half of first-time UA freshman required remedial courses. Of that group, 81% required remedial math and 50% required remedial English.³

Although Alaska's schools hire approximately 1,000 new teachers annually, only about 36% come from Alaska.⁴

Without qualified students from Alaska completing four-year education degrees, we import educators from other states to fill these professional, career-track jobs. Those imported teachers are twice as likely to leave in the first three years on the job, the critical period when teachers attain mastery. Turnover reaches over 50% annually in some rural school districts.

Since 1996 it has been widely accepted that the teacher is the most influential factor in what a student learns.⁵ With a revolving door of imported teachers, some Alaska school districts struggle to improve. Schools that cannot keep high quality teachers produce too few students who become qualified teacher candidates. With too few well-educated

Imported teachers are twice as likely to leave in the first three years on the job, the critical period when teachers attain mastery.

¹ Alaska Performance Scholarship Outcomes Report 2013 by Alaska Commission on Postsecondary Education, website accessed February 2015:

http://acpe.alaska.gov/REPORTS/Reports/APS_Outcomes_Report.

² National Science Foundation, website accessed February 2015:

<http://www.nsf.gov/statistics/seind14/index.cfm/chapter-1/c1s5.htm#s2>

³ Alaska Performance Scholarship Outcomes Report 2013 by Alaska Commission on Postsecondary Education, website accessed February 2015:

http://acpe.alaska.gov/REPORTS/Reports/APS_Outcomes_Report.

⁴ Hill, A., & Hirshberg, D. (2013). Alaska teacher turnover, supply and demand: 2013 highlights. Retrieved from University of Alaska, Alaska Teacher Placement website:

<http://www.alaskateacher.org/downloads/2013TeacherTurnover.pdf>

⁵ National Commission on Teaching & America's Future. (1996). *What matters most: Teaching for America's future*. New York, NY: Author.

students entering the teaching profession, schools import more teachers from outside Alaska who don't last. And so the cycle repeats.

The factors contributing to these problems are complex and challenging. However, solutions do exist. This report diagnoses the flaws in Alaska's system of preparing and supporting the educator workforce and recommends comprehensive and systemic changes capable of significantly resolving them. These recommendations will not be easy to implement, but they are not beyond the capabilities of Alaska's education, political and community leaders if we accept ownership of the problem and resolve to work together in a concerted and cooperative movement.

Alaskans have become aware that teachers, specialists and administrators are the core of our educational system, and that we are falling short in supporting the quality and quantity of this critical cadre of educators. With this report, a partnership of school districts, educators, tribal leaders and individual Alaskans commits itself to solving this problem, for the sake of our children and our state's future.

Section 2: Issues facing Alaska's education workforce

The shortcomings of Alaska's education workforce—teachers, specialists and administrators—are well-known to most education leaders. Alaska produces too few educators, they tend to stay in their jobs for too short a time, and too many lack the skills to be effective.

- From 2008-2012 an average of 64% of teachers were hired from outside Alaska.⁶
- District teacher turnover ranged from 7-52% in 2012.⁶
- Turnover rate for teachers prepared outside Alaska is double that of teachers prepared in Alaska, regardless of years of experience. For example, 23% vs. 12% turnover of early career teachers 0-3 years.⁶
- Half of Alaska's K-12 students are minority but 90% of teachers are white.⁶
- Currently, 85% of all applicants to the University of Alaska teacher training program fall short of minimum qualification contained in new accreditation standards planned for implementation in 2020. In fact, by 2020 at least 95% of our Alaska Native applicants will not qualify to enter into the teacher training program.⁷

Section 3: Key findings: Goals for systemic change

Based on grounded research, our team has created a systematic approach to strengthen the K-12 certificated workforce in Alaska capable of producing specific, measurable results. The model has two major parts, which lead into 16 individual policy recommendations.

⁶ Hill, A., & Hirshberg, D. (2013). Alaska teacher turnover, supply and demand: 2013 highlights. Retrieved from University of Alaska, Alaska Teacher Placement website:
<http://www.alaskateacher.org/downloads/2013TeacherTurnover.pdf>

⁷ Roehl, Roy. Presentation, "Disparate Impact of CAEP Standard 3.2", Fall 2014.

The first part of our model calls for expanding the workforce, with the goal of 60% of Alaska's new hires being Alaska-grown by 2025. Recommendations to meet this goal address educator recruitment and preparation.

The second part of our model calls for developing and keeping the workforce, with the goal of having 90% of Alaska's teachers rated as proficient under the state's evaluation system by 2025. Recommendations to meet this goal address professional development and teacher retention.

This model is represented graphically and explained in detail in Section 7.

Section 4: History

Before outside contact, Alaskan young people were educated by their communities to subsist and thrive in the harsh environment of the North. Archeological evidence shows their successful strategies were taught across the top of the North American continent. But after contact with outside cultures, the necessity of western education became increasingly clear as a path to economic prosperity. As non-Native families came to develop Alaska's resources, and came to dominate in numbers, they also brought with them a need for school teachers.

Our team has created a systemic approach to strengthen the K-12 certificated workforce in Alaska capable of producing specific, measurable results.

From the beginning, western education has been an Alaskan import. In the 1700s, the Russian American Company and the Russian Orthodox Church began delivering education to communities in southwest, southcentral, and southeast Alaska. Following the purchase of Alaska from Russia in 1867, the US federal government provided for teachers in Alaska, and remained as a major presence through the territorial period through the Bureau of Indian Affairs.

When Alaska became a state in 1959, the constitution required the legislature to "establish and maintain a system of public schools open to all children of the State." Large communities already had public school systems supported by local taxes. In the mid-1970s, the State of Alaska took control of schools from the federal government for delivery of education services outside of incorporated towns.

In the mid-1950s, trained teachers were so scarce in Alaska that Anchorage schools employed teachers lacking bachelor's degrees. Salaries well in excess of national pay scales attracted teachers to come to Alaska. The founding of the University of Alaska Anchorage came about in part to satisfy the need for summer classes for teachers.

The University of Alaska was founded in 1917 as an agricultural college. The teacher preparation program has been in existence since at least 1960. Teaching programs now exist in Fairbanks, Anchorage and Juneau, and other programs within the University provide mentorship for working teachers and other professional development. But the University system has never supplied the full need of new teachers to Alaska's schools.

Section 5: Genesis and process of this project

This Educator Quality and Quantity Project was initiated by CEAAC, the Citizens for the Educational Advancement of Alaska's Children, through its work to address educational inequities and help struggling schools. Partners in this work have included NEA-Alaska, Cook Inlet Tribal Council, and a broad range of Alaska's educational leaders.

CEAAC was founded in 1997 to address inequitable funding for rural school construction in Alaska. In 2004, CEAAC, NEA-Alaska and other plaintiffs filed the constitutional Moore v. Alaska suit to address low performance in rural schools. Through the suit, the state's constitutional obligation to provide public education was defined for the first time. In addition, the trial court heard testimony from national experts about the core issues causing low performance in Alaska's school

As part of the Moore case, Superior Court Judge Sharon Gleason in 2009 ordered the State of Alaska to provide teacher and principal training to meet its constitutional obligation to students in rural Alaska. But when the litigation was settled in January, 2012, training of the education workforce had not fundamentally changed, and the settlement between CEAAC and the State of Alaska did not contain a specific teacher preparation component, although the settlement did contain funding for a Teacher Retention Grant Program.

In April, 2012, the CEAAC Board of Directors adopted a three-year strategic plan with a trio of goals that, if addressed, would impact the quality of education in Alaska. The goals would address the unfinished business of the Moore litigation by taking on the core causes of low educational achievement identified by expert witnesses in the case. The third goal in this plan, to be addressed beginning in 2015, was, "to increase production of teachers and principals and to assure that graduates fit the needs of Alaska's school districts."

In April, 2014, CEAAC retained Jerry Covey and Dr. Barbara Adams to begin this work, by studying and making recommendations to address weaknesses in Alaska's educator quality and quantity workforce. This report is the first result of their efforts. Data contained here build upon those that clearly document Alaska's high educator turnover and illustrate our dependence on hiring educators without experience in Alaska or our cultures. Recommendations show a way forward that policy makers can adopt to solve this long-standing, intractable problem.

The charge given to the CEAAC team assigned to work on improving educator quality and quantity included these tasks:

Data contained here build upon those that clearly document Alaska's high educator turnover and illustrate our dependence on hiring educators without experience in Alaska or our cultures.

1. Identify statewide issues that negatively impact Alaska's certificated education workforce.
2. Identify effective practices in educator recruitment, development, and retention.
3. Engage stakeholder groups in a collaborative effort to prioritize improvements that will strengthen Alaska's certificated workforce.
4. Secure policy, regulatory, and statutory changes to improve the quality of Alaska's certificated education workforce.

The objectives of the work were short- and long-term.

Short-term objective: Gather data about bottlenecks related to recruitment, retention, and quality of Alaska's education workforce and then present a compelling report to the CEAAC board for changes needed in Alaska's training and professional development programs.

Long-term objective: Garner support from the university system, state agencies, school districts, professional organizations, and interest groups to support increased organizational commitment and public policy changes that will strengthen Alaska's teacher education and development system.

Section 6: Research Approach, Data Collection and Analysis

Research approach

Covey and Adams adopted a research approach that recognized educator quality and quantity as a long-term issue where change is needed. They wanted to answer two research questions that support reaching our short-term and long-term objectives.

Research Question 1: What are the statewide issues that negatively impact Alaska's certificated education workforce (teachers and administrators)?

Research Question 2: What are the effective practices in educator recruitment, development, and retention?

Data collection

The researchers identified leaders from a range of stakeholders to include in the first phase. They used a grounded theory approach, which means they allowed the data to create the model. The data came from interviews with 16 leaders from the following list of the stakeholders:

- Alaska Department of Education & Early Development (DEED)
- Alaska Staff Development Network
- Alaska Teacher Placement
- Anchorage School District
- Alaska Superintendents Association (ASA)
- Association of Alaska School Boards

- Education Matters, Inc.
- Fairbanks North Star Borough School District
- Future Educators of Alaska
- Institute of Social and Economic Research (ISER)
- NEA-Alaska
- UA Rural Campus Leaders
- UA Schools of Education
- UA Statewide Administration

Covey and Adams conducted the interviews mostly with individuals although in some cases there were multiple participants. They designed and used a structured protocol, meaning that the questions were fixed before the interviews started and interviewers didn't deviate from them.

Researchers also conducted reviews of many documents that confirmed or shed additional light on the issues. Here is a list of the sources of documents reviewed:

- Alaska Department of Education and Early Development
- Council for the Accreditation of Educator Preparation (CAEP)
- Education Matters, Inc.
- Flexner Report on Teacher Preparation (Brookings Institution)
- Institute of Social and Economic Research
- Interstate Teacher Assessment and Support Standards (inTASC)
- National Board of Professional Teaching Standards
- National Council on Teacher Quality (NCTQ) 2013 State Teacher Policy Yearbook
- Partnership for Public Education, Northern Economics report: Enhancing Student Learning and Performance: 2013 Statewide Survey
- Shaping Alaska's Future (University of Alaska)
- Stanford Social Innovation Review
- TCC Interior Education Summit Draft Report
- UA SOE Draft Plan for Revitalizing Teacher Education in Alaska

Further, the researchers considered the following projects that are ongoing in the state among the various institutions connected to educator quality and quantity while gathering and analyzing interview data:

- Alaska Performance Scholarship
- Investments in Innovations (i3) grant for the Alaska Statewide Mentor Project

- Current accreditation process for the UA Schools/College of Education through the Council for the Accreditation of Educator Preparation (CAEP)
- State school board increase requirement to three years of mathematics
- UA Board of Regents interests shared through meeting notes
- Governor Parnell's Career and Technical Education plan

After the interviews were completed and the data were analyzed using the research approach explained below, the results were scrubbed and member-checked. Results were shared with those who were interviewed and others to receive feedback for refinement. Here is a list of the organizations with members who reviewed results, informing refinement based on continued input.

- Alaska community members and political leaders
- CEAAC board and staff
- Cook Inlet Tribal Council
- DEED
- ISER
- UA schools and college of education
- Superintendents and ASA
- UA Board of Regents
- UA Statewide Administration
- UAF Administration

Data analysis

To analyze the interview data Adams implemented a rigorous iterative process using open, axial, and selective coding. The results were then considered by analyzing frequency of codes, co-occurrences of codes or where codes overlapped with other codes, and the actual quotes. Open coding includes any topics that fit the quotes such as quality, compensation, mentoring, and perception. Axial coding includes the framework we identified, and thus we used the terms issues, solutions and changes. The selective coding includes large topics of interest, which we classified as preparation, recruitment, retention and professional development.

The results then stem from the frequency or count of codes and the frequency of co-occurrences or when two or more codes overlap. After looking at frequencies, we investigated co-occurrences within our axial codes. We then also looked at the co-occurrences of other codes within the four largest topics of interest that were identified. Details of the coding and analysis process can be found in Appendix A. All together we used this data to develop the model for strengthening the K-12 certificated workforce.

Section 7: The EQQ Change Model

The fundamental insight of this work is the need for a model for change that addresses many aspects of the problem in a systemic way. The team spent many hours distilling the data on potential solutions into the interlocking pieces of this total approach, which we call the EQQ Change Model. The model reflects the collaborative effort of all those who provided interview data and feedback. The team designed the model to show how the pieces of this change movement would fit together.

Through our process, the EQQ Change Model was presented to stakeholders in Alaska's education system, including political and community leaders, and we met with widespread support. Implementing the model depends on the recommendations that support the framework and goals, which individually engender debate and require flexibility. But, while the devil is in the details, it is important to note that this model and the goals it encompasses is supported by the vast majority of those who have reviewed it. Consequently, we can say that we have established an overall set of goals for improving Alaska's education workforce.

Framework for the model

The framework for the EQQ Change Model depends on three essential themes that inform all parts of the work. This critical framework is based on these key conclusions:

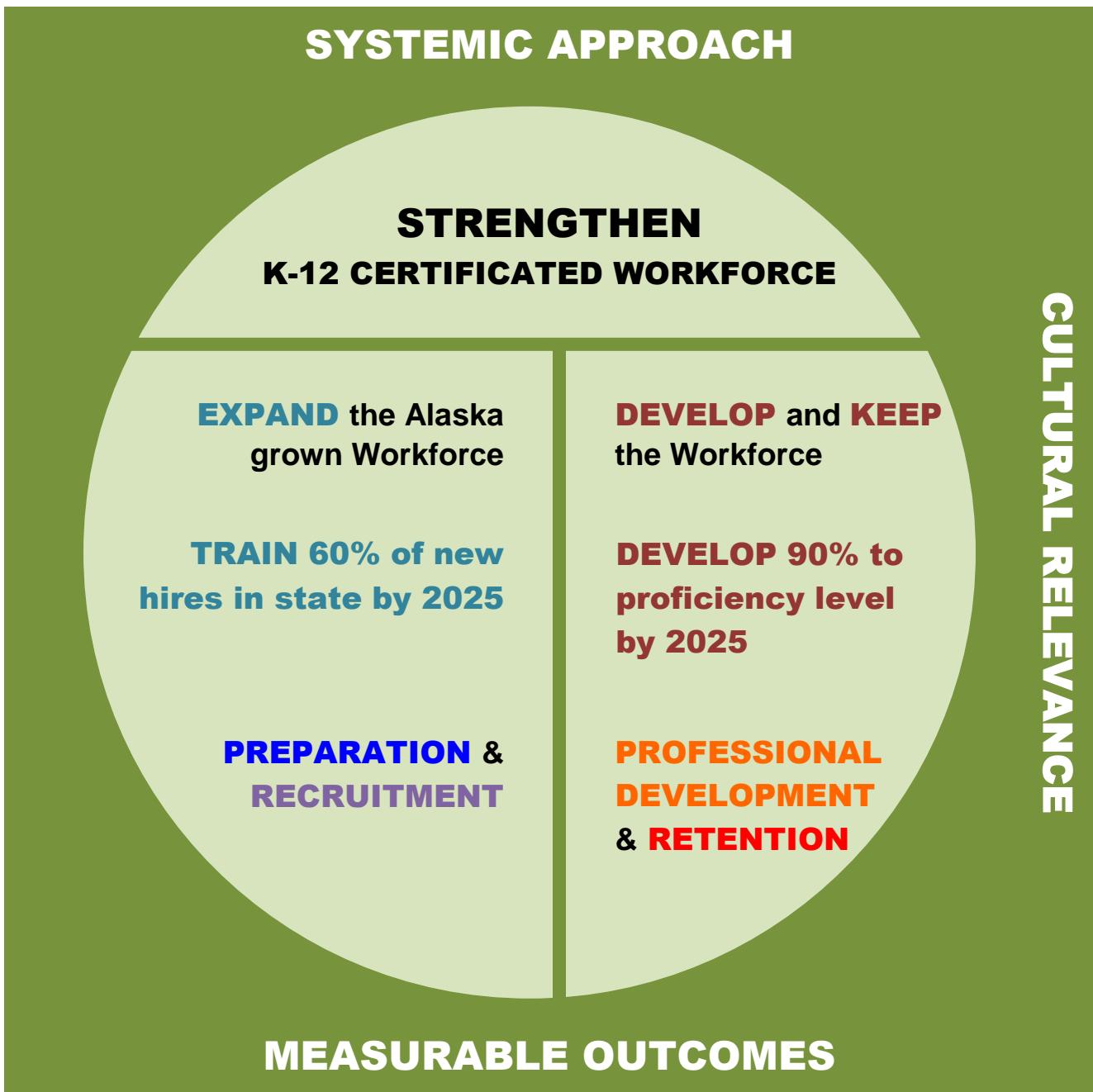
- **Systemic change:** An overall approach to strengthening the K-12 certificated workforce in Alaska needs to be systemic. This is a long-term problem that needs an overhaul of the whole system if we want to see meaningful change in meeting the needs of all students.
- **Measurable outcomes:** The approach should be grounded in measurable outcomes. All actions should be developed in such a way that outcomes can be measured, and actions can be supported through reference to those measurable outcomes.
- **Cultural relevance:** Teachers must be prepared to adapt to the culture of their students, not the other way around. To fulfill that promise, cultural awareness must be embedded in every aspect of teacher recruitment, preparation, professional development and retention. Since culture is fundamental, not an add-on, it is treated as an integrated part of the model rather than a goal or recommendation.

Goals of the model

Within this framework, the model focuses on two transformative, measurable goals:

- **Expand the workforce**, with the goal of 60% of Alaska's new hires being Alaska grown by 2025. Recommendations to meet this goal address **educator recruitment and preparation**.
- **Develop and keep the workforce**, with the goal of having 90% of Alaska's educators rated as proficient under the state's evaluation system by 2025. Recommendations to meet this goal address **professional development and teacher retention**.

A graphic representation of our systemic model is depicted below. Definitions of the terms used and an explanation of the goals follow.



Definitions

Here are definitions of the terms used in the model.

Alaska-grown workforce: Workers with experience in our state, who could include those who were raised in Alaska and leave the state for teacher pre-service programs, those who come to Alaska to participate in teacher pre-service programs, or those who live in Alaska before going into education.

Cultural relevance: Preparation of educators to understand and work effectively and sensitively with their students in the social context in which they live.

K-12 certificated workforce: The entire cadre of professionals in the K-12 education system needing certification for jobs, including teachers, specialists and administrators.

Measurable outcomes: The concept that any component of the model should be able produce data (quantitative and/or qualitative) that can be gathered and understood within a metric.

Proficiency level: The level on the state-mandated evaluation scale of educators in which a professional is deemed satisfactory in his or her practice, which can be measured with any evaluation tool adopted by a school, a school district, or the state; or, a category that would naturally align with the level equivalent to 'proficiency,' or higher.

Systemic approach: A plan for change that addresses each player and their role in the entire K-12 and post-secondary education establishment.

Explanation of goals

Expand. The first goal is to expand the Alaska-grown workforce, specifically to be able to obtain 60% of new hires from within the state by 2025. To accomplish this goal we will look to educator preparation and recruitment practices. The goal flips the picture of Alaska educator training: the state now imports around 60% of teachers with no Alaska experience. This goal would make the majority of educators Alaska grown.

The term 'Alaska grown' refers to people with Alaska experience, which covers several avenues. Alaska experience could mean being born in Alaska and going to a college or university in another state for teacher pre-service programs then returning as a professional educator. Alaska experience could also mean going through Alaska teacher and/or administrator pre-service programs even if you came from another state. Alaska experience could also mean a person who moves to Alaska to live and then goes into the field of education.

Regardless of how an educator could have Alaska experience, the point of 'Alaska grown' is that life in our state provides educators with assets they cannot obtain outside an Alaska context. These assets include:

- Teachers from Alaska have a better understanding of what they are getting into when choosing a career here, and so are more likely to last.
- Alaska-grown teachers start their jobs with a higher level of credibility with students.
- They are more likely to share a common cultural and practical outlook with their students.

- Alaska-grown teachers are more likely to have roots in Alaska that will keep them here, enhancing long-term retention.

The ‘Alaska grown’ goal also has impact on our economy and the future of our high school graduates. Students grown in our own communities are a human resource. Education is a rewarding, life-long career. For decades Alaskans have had the goal of processing our natural resources here before export, but we continue to send away this valuable human resource in a raw form while importing educated teacher and administrator recruits to work in our schools. Achieving the 60% Alaska-grown goal would mean good jobs for Alaskans worth many hundreds of millions of dollars annually.

Develop and Keep. The second goal is to develop and keep the workforce, specifically to develop 90% of the certificated workforce to proficiency level by 2025. To accomplish this goal we look to professional development and retention actions. Currently Alaska requires that each district have an educator evaluation in place that deems when an educator is considered proficient based on standards. This goal uses the district definition of proficiency along with retention to stabilize the workforce. The idea is to retain the proficient educators and to develop all educators to at least the proficiency level, whether they come in new or they fall below proficiency as an experienced educator.

Section 8: Recommendations

As we investigate each of these overall goals in the EQQ Change Model, it becomes evident that multiple strategies are needed, and various options could work, to attain these goals. Relating strategies to goals is a critical step in designing a measurable, systemic approach that will effect authentic change. To show how the goals relate to the strategies, we have organized them in a color-coded four-quadrant matrix, which is shown on the following page.

There is a wide-spread agreement to all of the aspects within the model; however, differences of opinions and priorities come into play at the recommendations level. It is our long-term objective to identify which of the recommendations we can garner the most support in order to create a unified approach to systemic policy changes. Section 9 discusses implementation issues related to each recommendation, with preliminary assessments of the time, cost and complexity of adopting the recommendations.

EXPAND**DEVELOP & KEEP****Preparation**

- Raise standards for entry into and exit from educator preparation program in state (CAEP)
- Increase and strengthen bridge programs to attract minority groups into education careers
- Increase university capacity for educator preparation to reach the goal of 60% Alaska grown
- Increase and strengthen pre-service field experience
- Establish laboratory schools in urban and rural hub communities
- Provide a systemic process for improving teacher preparation using stakeholder and outcome feedback

Professional Development

- Add 10 quality professional development days; add 6 days to school year and add 4 days to quality in-service allocation
- Statewide voluntary curriculum: select two curricular programs for major content areas – if districts voluntarily choose to use them, state will purchase them and EED will provide on-going quality staff development
- Increase and expand the Alaska Statewide Mentor Project
- Develop UA curricula to address unique Alaska needs

Recruitment

- FEA program in every school district, aim for 5% of high school student population for a total of 2,000 students
- Revisit salary and benefits package
- Incentivize hard to fill jobs
- Alternative certification programs
- Loan forgiveness

Retention

- Continue teacher retention grants to districts
- Establish laboratory schools in urban and rural hub communities
- Revisit salary and benefits package
- Incentivize hard to fill jobs
- Loan forgiveness
- Increase and expand the Alaska Statewide Mentor Project

EXPAND: Preparation

Our goal is to expand the Alaska grown education workforce. Based on our data collection, we believe that by 2025 Alaska could be educating 60% of schools districts' annual hires.

To achieve that goal, we need to clearly define more pathways to earning education degrees and attracting greater numbers of highly qualified applicants into education careers. Specific policy commitments needed to achieve this goal are presented here in order of priority.

1. Raise standards for entry into and exit from Alaska educator programs.

Our research showed universal agreement on raising standards for entry into Alaska's programs. The University of Alaska is already moving in this direction with adoption of programs established by the Council for the Accreditation of Educator Preparation.

Our recommendation is to support the higher standards contemplated in the new accreditation program. This change may seem superficially counterproductive to our quantity goal, since increased standards and increased selectivity can be expected to decrease numbers of students. But, while raised standards may initially reduce the number of candidates who enter education, over the long term higher standards will increase the prestige of the profession and the success of newly minted teachers. Thus, higher standards are part of a long-term, systemic solution to quantity as well as quality.

In the shorter term, investment will be needed to provide assistance to students who need help to meet the higher standards for entrance.

2. Increase and strengthen bridge programs to attract minority groups into education careers.

Bridge programs are designed to assist students from under-represented populations with entry into professional training. Alaska's shining example of a successful bridge program is the Alaska Native Science and Engineering Program (ANSEP). The program takes students back to the basics by raising the bar and focusing on preparing them academically and socially with tools for success in college and beyond. ANSEP students are successful at rates far exceeding national and state numbers. For example, ANSEP middle school students complete Algebra 1 before graduating from eighth grade at a rate greater than 75%. The national average is 26%.⁸

In rural Alaska, 95% of students are Alaska Native, while approximately 95% of the teachers are white. A program as successful as ANSEP with an education focus, bringing rural Alaska Natives to the education profession, would address this disparity, impacting both of the major goals of our initiative, and having a major impact on students and communities, by making schools fundamentally more culturally relevant and integrated with rural life.

This recommendation addresses our measurable goals for recruitment and retention because an educator who works in his or her own rural community is much more likely to stay than an imported teacher. Although the absolute numbers of teachers who could be trained through such a bridge program would not be expected to make a major dent in the doubling of Alaska-trained hires we are seeking, ending the revolving door of staff in rural schools would have an outsized impact. A single teacher who stays an entire career in a rural school could avoid the need for 10 raw recruits who would fill that role with rapid turnover during the same period.

⁸ Alaska Native Science and Engineering Program, *ANSEP Component Report*, 2014; page 2.

Over the last 40 years, Alaskan universities have developed and delivered a variety of bridge programs to increase the number of certificated minority educators, primarily to produce Alaska Native educators. Over these decades many of these programs have produced certificated teachers and administrators, however, the overall picture is still bleak, considering only 5% of teachers were Alaska Native based on 2012 numbers.⁹

Recent efforts to deliver such programs have been expanded to attract Alaska Native high school students into teaching careers through leadership programs and future educator programs delivered in some high schools. The goal of bridging rural students to the teaching profession is too important to give up because of weak results from past models. Fortunately, we have strong evidence for how to design an education bridge program that will work. Firstly, a new effort should apply the positive lessons of past bridge programs while being frank and flexible in recognizing their shortcomings. Secondly, the successful strategies and resources of ANSEP should be replicated to create a similar effort for the teaching profession. Elements of a successful program would include improving the quality of high school programs and expanding their delivery to most high schools in Alaska. UA President Gamble has specifically included this new program in the UA budget and asked leaders of ANSEP to start this process. We support this idea and suggest that educators be included in modifying this program from a science and engineering focus to an education focus.

These changes will carry costs, but with success, a bridge program can deliver fundamental, permanent change to solve a multi-generational education problem in rural Alaska.

3. Increase the University of Alaska's capacity for educator preparation to produce 60% of educators hired annually.

Meeting this goal by 2025 will require the university to significantly increase the capacity of its educator preparation programs. A first step in this process would be to analyze the current capacity versus the current output of such programs and develop a long-range plan to increase capacity, which may require additional faculty and facilities. However, we believe an initial increment of increased student numbers can be accommodated within the existing capacity.

In addition to adding numerical capacity, sites must be expanded to make UA training more accessible for rural students. Past failures in efforts to recruit Alaska Natives to the education profession have demonstrated that pulling adults out of rural communities for training is impractical. If we want to bring more rural Alaska Native educators into the system, we will have to find a way to take the program to them. Complete teacher education programs with high expectations should be offered to large groups of students in hub communities, instead of delivering off-site programs that lack access to the same quality and infrastructure available to students on large campuses.

⁹ Hill, A., & Hirshberg, D. (2013). Alaska teacher turnover, supply and demand: 2013 highlights. Retrieved from University of Alaska, Alaska Teacher Placement website: <http://www.alaskateacher.org/downloads/2013TeacherTurnover.pdf>

4. Increase and strengthen pre-service field experience.

As presented in the famous national report, *No Dream Denied*, the education profession pays a high price nationally for throwing newly trained teachers into the deep end of leading classes with too little experience or support. A significant fraction of new teachers abandon the profession in the first three years on the job. Those who stay and learn the ropes on the job take three years before their teaching effectiveness equates to veteran teachers, as shown in the results of student achievement tests. Students of those inexperienced teachers may be shortchanged for those years of on-the-job training. In schools with high turnover, students may rarely encounter a veteran teacher with a full toolbox of classroom skills, paying the price throughout their schooling.¹⁰

All these considerations are true for urban and rural schools in Alaska, but for rural Alaska educator candidates, real-life experience is even more important because of the unfamiliarity of the cultures and environments they will encounter.

Our interviews showed strong support from all education stakeholders for this recommendation. Increasing the amount of time pre-service educators have in schools and classrooms has many benefits, including allowing them to live in remote areas, observe classrooms, tutor students, and engage with educators prior to their student teaching experience.

5. Establish laboratory schools in urban and rural hub communities.

A laboratory school is an elementary or secondary school associated with an educator training institution such as the University of Alaska where professors and degree candidates can work with students on a daily basis. Laboratory schools often are located on university campuses, where learning experiments and classroom experience is close at hand.

Laboratory schools could create a venue to provide pre-service and in-service educators from both rural and urban school districts to engage in the practical realities of successful education delivery. Laboratory schools would strengthen our education workforce and increase exposure to successful education delivery programs and practices. New ideas could be more effectively tested and disseminated through these schools.

Large districts and rural hub communities already have the infrastructure in place for laboratory schools. The major costs would be educator travel and lodging expenses. Our research found strong support from education stakeholders for this recommendation.

¹⁰ National Commission on Teaching & America's Future. (2003). *No dream denied: A pledge to America's children*. Washington, DC: Author.

Rockoff, J. E. (2004). The impact of individual teachers on student achievement: Evidence from panel data. *American Economic Review*, 94(2), 247–252.

Ronfeldt, M., Loeb, S., & Wyckoff, J. (2013). How teacher turnover harms student achievement. *American Educational Research Journal*, 50(1), 4–36. Retrieved from https://cepa.stanford.edu/sites/default/files/4.full_.pdf

Strong, M. (2009). *Effective teacher induction and mentoring: Assessing the evidence*. New York, NY: Teachers College Press.

6. Provide a systematic process for improving educator preparation using stakeholder and outcome feedback.

Educators in the K-12 system are the clients of the University of Alaska programs that prepare the teachers, specialists and administrators they hire, but many feel the university does not hear their concerns about the quality of training. At the same time, the University is the client of the K-12 system that prepares the students they matriculate, but half of the Alaska graduates they receive as freshmen need remedial training to be ready for college.¹¹ We propose that both halves of our Alaska education system come together to work as a whole, cooperating as a single K-20 system.

The first step to this cooperation is communication. This recommendation is aimed at creating a meaningful partnership that engages school district educators and those who deliver educator programs at the university level. Such a system would require a commitment beyond infrequent meetings or discussions that do not produce actionable plans. A true systematic process would gather feedback in a rigorous fashion, document and ground-truth issues and concerns, and then follow-up to demonstrate how those issues were addressed.

Our research encountered almost universal support for this recommendation and the cost of doing it is relatively low, but implementing it will be more difficult than this willingness and low cost would imply. Success would require a commitment of school district and university leaders and staff to design a process that works and to ensure it consistently repays the effort invested and continues over time.

EXPAND: Recruitment

To accomplish our goal of doubling the percentage of Alaska-grown newly hired teachers, we need a dramatic increase in job candidates with Alaska experience. Several of the recommendations listed here can also serve to recruit high quality educators from out of state as well by making Alaska a competitive location again, as in the past.

7. Expand the FEA program into every school district.

Students in their last two years of high school will determine the success of our goal of increasing the number of Alaska-grown teachers, because career decisions by these students set the path of our Alaska-grown resource of young people. The size of the potential resource is large, with over 7,500 seniors graduating from Alaska's high schools annually.¹²

Why aren't more Alaska young people choosing to become educators? One factor is the poor reputation of the teaching profession as a career, in terms of the demands, responsibilities and rewards of the work. Numerous respondents in our interviews

¹¹ Alaska Performance Scholarship Outcomes Report 2013 by Alaska Commission on Postsecondary Education, website accessed February 2015:

http://acpe.alaska.gov/REPORTS/Reports/APS_Outcomes_Report

¹² State of Alaska, DEED, Report Card to the Public 2013-2014, website accessed February 2015:
<http://education.alaska.gov/reportcardtothepublic/>

highlighted the impression among students, which is hardly unjustified, that teaching is a hard job, teachers are underappreciated, and that educators do not receive high wages. Other recommendations in this plan address the inherent attractions of education as a career. But another critical component of recruitment is to provide young people with information about careers in education, and inspire them to follow this noble calling.

Our interview data strongly calls for redesign and expansion of the Future Educators of Alaska program or a new program like it. FEA, as currently conceived, is a K-12 program of the University Alaska aimed at Alaska Native and rural students.

We recommend that every district aim for attracting 5% of high school students into an FEA-like program. That effort would increase the number of potential educators to 2,000 annually. Participation increases would be especially important in urban districts with non-Native students, as that is the largest audience of potential new Alaska-grown teachers.

As currently structured, FEA is a grant-funded program through the University of Alaska, Office of K-12 Outreach, which considers the participating school districts as partners. It is also a Career and Technical Student Organization, or CTSO, and receives Perkins and Technical Vocational Education Program (TVEP) funding like other career and technical education paths. As such, funding should be available to address this recommendation. However, efforts by advocates, such as CEAAC, may also be needed to refocus the program to a mission of recruiting students of all races into education.

8. Revisit the salary and benefits package.

Personnel costs dwarf all others in the education field. This is truly a human resources-dependent sector. In light of current state budget deficits, it would be nice to say definitively that the money allocated to educator salary and benefits is already adequate. Unfortunately, school districts across Alaska report that their hiring offers for new teachers, specialists and administrators often are no longer considered competitive with districts outside Alaska. In addition, young people with many career opportunities often think of education as a low-wage profession. And many educators consider the Teacher Retirement System defined-contribution retirement offered to new teachers since 2006, combined with their exclusion from Social Security, as a negative consideration in recruitment and retention.

Ideas abound for how to make education a more attractive profession for Alaska's brightest young people. Improvements could take many forms, such as signing bonuses, increased retirement per year of teaching, and higher salary based on content area and need. These approaches support recruitment from the pool of educators both within the state and from other states.

Unfortunately, data is lacking to confirm or dispute these beliefs about the competitiveness of Alaska educator salaries and benefits, as well as the effectiveness of various ways to fix the perceived problem. Recognizing the need for more information, the Alaska Legislature in 2014 commissioned research on the issue. During early 2015, ISER is conducting a study to identify a set of salary and benefit packages providing alternatives to what is the current practice in most districts. After that report is complete,

we will identify more specific recommendations concerning salary and benefit packages as well as identify the associated cost.

Schools districts are the governing agency on this strategy in that school boards determine how they want to compensate educators. However, the legislature is connected in the sense that it develops policy on the funding of districts, which controls their ability to increase personnel costs, and teacher retirement is set in law. The ISER study may or may not show a need for additional funding or a revised retirement package.

9. Incentivize hard to fill jobs.

School districts face difficult and sometimes insurmountable difficulty in filling certain jobs, which can include content areas such as special education, math, and science, or for work in remote locations or with chronically struggling districts. Where school problems contribute to the challenge of filling these positions, the low number and quality of potential candidates offers little hope of improving those problems.

Incentivizing hard to fill jobs can take many forms, and can come from a variety of sources. Incentives can include free special education courses, free continuing education courses, and financial bonuses and the like, for new hires or for support retaining an educator who may find less challenging situations attractive. Incentives support recruitment from the pool of educators both within the state and from other states.

Some of these strategies can be implemented by the University of Alaska, but others will require action by school districts and/or the legislature. Further study is warranted to define the level of incentives that are needed in various situations, and how they could be paid for. As a first step, however, policy support should be provided to allow districts and the university flexibility to implement incentives when they see the opportunity and need.

10. Increase alternative certification opportunities.

One way to improve the pool of qualified educators would be to increase alternative certification opportunities via local programs for adults. We recommend strengthening these programs, which can assist Alaska Native and rural participants.

The X-CED model was hailed as working by a majority of interviewees. X-CED was the cross-cultural education program under UAF that was active from 1970-1990. The X-CED model placed faculty in the rural campuses and worked primarily with local teacher aides to support them in becoming certified classroom teachers. Many of the generation of Alaska Native teachers who have retired in the last 10 years or will retire soon enter the profession through this model. We recommend that this model be replicated with potential additional components, such as paraprofessionals receiving a recommendation from their superintendent before entering the program.

Alternative certification opportunities should also include targeting second career professionals, aiming to diversify the workforce to mirror student populations across the state, and increasing the number of participants served by each program. This will require certification policy adjustments by EED and program development and/or enhancement by UA.

11. Provide loan forgiveness.

The cost of college is a consideration for all students and a barrier for some. Reducing cost can be used as a mechanism to steer students toward careers of great social benefit, such as education. This strategy applies both to students who study in Alaska and those who leave for college. By using the mechanism of delayed loan forgiveness, this strategy can support retention as well as recruitment.

Many talented young people want to see the world during their college years and do not seriously consider staying in Alaska for college. Those who choose not to return are a loss to our state, and to the Alaska education workforce. To meet our goal of increasing the quality and quantity of this workforce, we need to bring more of these young people back to the state to enter the teaching profession. In addition, for those students who do study in Alaska, we can increase the numbers who become teachers by addressing the cost of training. Strategies under this recommendation include:

- Provide loan forgiveness for Alaskans who go outside for teacher preparation but want to return to the state to teach. Such a program would provide a percentage of forgiveness for each year of service up to five years, incentivizing a teacher to stay for at least that period—at which point, many young people will have put down roots that keep them in place for an entire career.
- Provide additional loan forgiveness for educators who work in rural districts or take hard-to-fill jobs and stay for three years, regardless of where they attended for preparation or when they decide to take a rural or hard-to-fill job.
- The Alaska Commission on Post-secondary Education (ACPE) provides a program called the Teacher Education Loan, which offers forgiveness to students who are trained in Alaska and work in a rural district. Students must obtain district nomination for one of a limited number of slots while they are still in high school, and then return to that same district to work after college graduation. The program is not widely used. It should be expanded to apply to all students trained in Alaska who take jobs and stay long-term in any district, and should be aggressively publicized.

Implementation of any of these forgiveness concepts would require legislative action with a fiscal note, and regulatory changes and implementation by the ACPE.

DEVELOP AND KEEP: Professional Development

Our goal is to ensure that all educators in Alaska's workforce have the skills to succeed as classroom teachers, specialists and administrators. Our numeric goal is that by 2025, 90% of educators will be rated at a proficiency level as determined by Alaska's system for evaluating certificated educators. Policy changes needed to accomplish this goal are listed here in order of priority.

12. Increase time of school year.

In Alaska's current fiscal climate, we are hesitant to recommend strategies that would carry significant additional cost. However, our state has fallen significantly behind the others in the length of the school year and the number of hours students spend learning. Although increasing the year is expensive and may not be possible in the current fiscal

climate, it will ultimately be required to accomplish the level of improvement that is necessary.

Some states measure the length of the school year in days, while others have a requirement measured in total hours; by either measure, Alaska has the lowest school-year requirement of any state, at 170 days or 900 hours (for grades 4-12), according to 2013 statistics gathered by the Denver-based Education Commission of the States. That means that both Alaska's students and educators have less time and less opportunity to develop their skills.¹³

Increasing Alaska's school year could allow time to increase professional development for the education workforce. We advocate increasing the school year by 10 days, putting Alaska in the mid-range of school year length among the states. The additional 10 days could be offered as 5 additional school days and 5 additional professional development days, or one week for each; another alternative would be an increase of 6 school days and 4 professional development days.

Additional professional development days are essential to improve the quality of the education workforce. While it goes without saying that professional development must be of high quality to be effective, various other recommendations in this plan address the quality and delivery of those services.

An increase in the school year would require a policy change by the legislature and changes by EED to implement oversight. We anticipate a \$40M price tag on this recommendation.

13. Implement voluntary statewide curricula.

Each school district in Alaska is charged with selecting the curricula taught in its schools and aligning those curricula with Alaska education standards. The result is that Alaska schools teach a wide variety of curricula in each content area, making it very difficult to ensure the adequacy of content to students and to provide much needed professional development for educators. The custom approach for every district is inefficient and, in core content areas such as math and reading, adds little value for students.

We recommend the Department of Education and Early Development offer school districts *voluntary* participation in a program offering two choices of curricula in each of the core content areas of mathematics, reading, and language arts. The State would align the curricula to its standards and provide it to school districts at no cost.

The benefits of this program to teachers, students and districts would be great. School districts that *choose* to participate would be relieved of the task of curriculum selection, purchase, and alignment with state standards. Additionally, participating districts would have access to high quality professional development from the department and other providers that was tailored to the content area curriculum being used, thereby increasing the proficiency of the certificated education workforce. That knowledge would be portable to any other Alaska school using the statewide curricula.

¹³ Education Commission of the States, website accessed February 2015:
<http://www.ecs.org/clearinghouse/01/06/68/10668.pdf>

We expect that EED would implement this recommendation by reallocating funds, communicating with districts, and building up its professional development team. We are conducting a survey of districts to estimate this cost.

14. Expand the Alaska Statewide Mentor Project.

Full funding for the Alaska Statewide Mentor Project (ASMP) will help ensure that educators reach levels of proficiency much earlier in their career. The ASMP has been well documented as an effective way to increase educator performance, skill development and retention for early career teachers—those in their first two years of the profession. Retention rates for early career teachers receiving mentoring from ASMP average about 80% after their first year of teaching compared to only 67% for those with no mentoring. Further, both teachers and principals feel that instruction is improved based on the support of an ASMP mentor.¹⁴ The ASMP model also can be expanded to support teachers without Alaska experience to bridge the cultural and social gaps that contribute to turnover.

Full funding means expanding the program to support all teachers who are placed in rural settings or in low-performing schools and who are either early in their careers or new to Alaska. Research is needed to determine the cost and capacity requirements to effect this expansion.

The ASMP is a partnership between EED and UA, specifically under the Office of K-12 Outreach. It is funded by a legislative budget line item and by state and federal grants. Expanding the program to reach all eligible teachers would require cooperation and funding support from each of these entities. A funding estimate was developed based on teacher and mentor numbers from 2013. The cost was estimated to be \$8.34 million to fully fund ASMP, including contributions from all players. This expense would provide services to 1,110 teachers, including early career teachers and those who are new to the state but not new to the profession. To provide these services to only the rural districts (450 early career teachers and 45 new to the state) would cost \$4.48 million.

15. Develop UA curricula to address unique Alaska needs.

Teachers trained in Alaska should be equipped with skills to meet unique Alaskan challenges. In-service training should also be directed to develop professional skills for our unusual teaching environments.

A number of classes could be developed under this heading. Educators with rural experience would be the best sources of current advice on these needs, which could be an important task for the communication system between districts and the University described under Recommendation 6. However, two needs are already widely recognized.

First, the university needs to support educators in developing skills for English Language Learners. This can be done through specialized certifications, professional development to schools, and continuous credit courses. When comparing student achievement results for districts based on demographics, one variable that helps describe differences is the percentage of limited English proficient students. Districts with high state standardized

¹⁴ Alaska Statewide Mentor Project, website accessed February 2015:
<http://alaskamentorproject.org/research.php>

proficiency levels (language arts and mathematics) tend to have a low percentage of limited English proficient students; whereas, those struggling with the least number of proficient students have a high percentage of limited English proficient students. Providing teachers skilled in working with students with limited English proficiency would address this disparity in achievement.

Second, a large number of rural schools require teachers to work in multi-age classrooms and teach outside their areas of qualifications. Many teachers are ineffective in these difficult circumstances, but some are highly successful. Unfortunately, the skills for success in multi-age classrooms are largely self-taught, so successes are not replicated. Teachers bound for rural schools should receive specific, well-researched instruction in how to work in that setting.

DEVELOP AND KEEP: Retention

As stated previously in this report, retention of teachers, specialists and administrators is a key issue affecting educational achievement in Alaska. Few strategies are effective for improving schools as long as teacher turnover continually wipes the slate clean. Effective teaching relies on professional experience and the trust relationship between teacher and student. With the revolving door in some districts, these attributes don't have a chance to develop.

Retaining teachers in their jobs also helps solve the challenges of recruitment and professional development. Teachers who don't leave don't need to be replaced, reducing the need to find and train new teachers. Also, keeping a teacher increases the value of investments made in training, both before and during the teaching career. Alaska schools spend untold resources on professional development for teachers who rapidly leave.

Several of the strategies listed elsewhere support this goal as well, including incentivizing hard to fill jobs and revisiting the salary and benefits package. Although overwhelming quantitative data has not been gathered to suggest these strategies will address the retention issue, we have received an abundance of qualitative data to suggest that these improvements would be beneficial.

This section lists only one recommendation not mentioned elsewhere in the report, because the systemic approach we are presenting should support increased retention as a whole. Research by ISER indicates that key issues reducing teacher longevity include poor support from administrators, unfamiliarity with local culture and environment, and lack of success in the classroom. Various strategies encompassed in this report would address each of these issues, improving administrator skill, cultural connection and awareness, and teacher preparation and effectiveness. We expect that better prepared teachers who know what they are getting into and who are supported professionally will want to stay longer.

16. Continue district teacher retention grants started through Moore settlement.

One of the four initiatives in the Moore settlement was a grant program to support districts in implementing strategies to enhance teacher retention. The process was established as a competitive grant allowing for up to three years of funding to districts who proposed activities that increased retention by addressing core causes of teacher job

dissatisfaction, as revealed by ISER research, not including financial incentives. Proposals had the opportunity to receive bonus points in two ways, with a bonus for low performing schools, and a bonus for low teacher retention schools.

Between school years 2012-2013 and 2014-2015 a total of \$2.6M was awarded to 51 proposals covering 14 school districts and 46 communities. Activities included such diverse needs as cultural camps, curriculum adoption, professional development, improvements in housing and safety, and even creature comforts and recreation. Districts have reported exceptional results enhancing teacher morale and retention through relatively modest investments of funds. To implement this recommendation, the program created through the Moore settlement would be continued with funding from the legislature of \$1 million per year.

Recommendations with dual impact that affect retention

Recommendation 2: Increase and strengthen bridge programs to attract minority groups into education careers.

Bridge programs will increase the number of rural Alaskan teachers working in their home communities. These teachers often spend their entire career in the same school.

Recommendation 5: Establish laboratory schools in urban and rural hub communities.

Establishing lab schools can play a role in teacher retention by providing opportunities for teachers to visit and observe master teachers, thus learning how to implement strategies in their own classrooms.

Recommendation 8: Revisit salary and benefit package

This recommendation would have equal impact on retention and recruitment.

Recommendation 9: Incentivize hard to fill jobs.

See description above. Additionally, a specific example can be found under Appendix B, showing how incentives can be linked to both educator retention and proficiency in a manner that mitigates losses to the district while supporting decisions made by both parties (district and educator).

Recommendation 11: Provide loan forgiveness.

As explained above, this program would keep teachers in district while receiving staged student loan forgiveness. In many cases, this time period would be long enough for teachers to become permanently ensconced in their new homes.

Recommendation 14: Expand the Alaska Statewide Mentor Project.

Research evidence shows that mentored teachers tend to stay in their jobs longer.

Recommendation 15. Develop UA curricula to address unique Alaska needs

This recommendation would make rural teachers more effective, reducing turn-over in areas with the more severe retention problems.

Section 9: Implementation

The EQQ Change Model and the 16 recommended strategies encompass a total plan to address a major shortcoming in Alaska's educational system. We know that having a highly qualified teacher in the classroom is critical to student achievement. This plan for systemic change will produce measurable improvement in this most basic component of delivering education to Alaska students.

We believe Alaskans would generally accept the goals encompassed in the model: 60% Alaska-grown new hires and 90% educator proficiency by 2025. But Alaska cannot reach these goals without concerted action on a number of fronts. Many of these actions, listed in our 16 recommendations, will be difficult or expensive. Major change is rarely easy. But we call upon Alaska's leaders to study, adapt and enact these recommendations so we can make the changes students need.

The sponsors of this report intend to present the EQQ Change Model and 16 recommendations in many fora across Alaska. The key adopters, however, are centered in four critical institutions: the Alaska Legislature, the Alaska Department of Education and Early Development and its Alaska Board of Education, the University of Alaska and its Board of Regents, and the school districts in Alaska's communities. Implementation will require informing the public about the needs and opportunities we have identified, and working with these key institutions to make the changes happen.

The matrix that follows lists the recommendations and implementation issues, including cost, need for further research, coordination, and so on. Most of the recommendations do not have definite cost estimates at this phase of development.

Time frame:

Short term: 2015-2016

Medium term: 2016-2018

Long term: 2018+

Recommendation	Agency	Time frame	Implementation issues
Preparation			
1. Raise standards for entry into and exit from Alaska educator programs.	UA	Short to medium term	Cost for remedial support to students unable to meet entry standards.
2. Increase and strengthen bridge programs to attract minority groups into education careers.	Legislative and private support for UA ANTEP, RAHI, Rural Delivery	Short term	Cost for new program.
3. Increase university capacity for educator preparation to reach the goal of 60% Alaska grown.	UA, Legislative funding	Medium to long term	Research to define UA capacity and needs. Cost for increase.
4. Increase and strengthen pre-service field experience.	UA , districts, Legislative funding, professional organizations	Short to medium term	Coordination among players. Research to determine cost.
5. Establish laboratory schools in urban and rural hub communities.	DEED, District and UA interest, legislature for funding for lab component, professional organizations, CEAAC	Medium term	Research needed to define program and coordinate players. Cost.
6. Provide a systematic process for improving educator preparation using stakeholder and outcome feedback.	UA, Districts, professional organizations, CEAAC	Short term	Coordination and commitment.
Recruitment			
7. Expand FEA program in every school district.	UA, Districts, CEAAC	Short to medium term	Cost. Restructure program, increase scope and intensity, focus on recruitment of urban students
8. Revisit the salary and benefits package.	Districts, Legislature, professional organizations; UA	Long term	Cost. Continue on-going studies.

9. Incentivize hard to fill jobs.	Districts, Legislature, professional organizations	Medium term	Research needed on incentives. Cost. Flexibility for districts.
10. Increase alternative certification opportunities.	DEED	Short term	Define requirements, develop regulations and programs
Recommendation	Agency	Time frame	Implementation issues
11. Provide loan forgiveness.	Legislature, ACPE	Medium term	Cost. Research and development of new programs and improvement of existing programs.
Professional development			
12. Increase time of school year.	DEED, Legislature	Long term	Cost. Labor contracts. Define specifics for class days and student contact days
13. Implement voluntary statewide curricula.	DEED, Legislature for funding	Short to medium term	Cost. Research to define program and select curricula and develop training.
14. Expand the Alaska Statewide Mentor Project.	EED, UA, Legislature	Short term	Cost.
15. Develop UA curricula to address unique Alaska needs.	UA, Districts, professional organizations	Short term.	Research of curricula and coordination of needs.
Retention			
16. Continue teacher retention grants to districts.	Legislature, EED	Short term	Cost.

APPENDIX A

RESEARCH PROCESS, DATA COLLECTION AND ANALYSIS

Summary of data collection

Interviews were conducted with 16 leaders or groups from education related organizations of all types around the state. Jerry Covey and Barbara Adams gathered the interview data using the same protocol developed collaboratively by conducting mostly individual interviews. In one case both interviewers were present and in a few cases interviews were conducted with multiple interviewees simultaneously.

Interview protocol

Interviews were conducting mostly face to face and a few by audio. The interviewers took notes that were later transcribed. The interview questions are provided here based on organization type.

Questions for interviews for all organizations

1. Is your organization currently involved in activities aimed at improving our education workforce? If so, please describe.
2. Does your organization collect education workforce data that would be of value to a collaborative effort to improve the quality of the workforce? If so, would you be willing to share it with others?
3. From your organization's perspective, what are the barriers or bottlenecks that prevent us from reaching our education workforce goals?
4. What are the two or three most significant changes that you recommend to positively impact educator recruitment, retention, and quality?
5. What questions or recommendations do you have for organizations that educate, provide professional development, or employ Alaska's education workforce?

Questions for Alaska schools of education

1. What type of feedback do you collect from school districts regarding graduates of your education programs?
2. Do you attempt to enroll students in various education programs based on estimated workforce needs?
3. What percentage of your departmental resource is directed toward professional development for the existing education workforce?

Questions for school districts

1. What percentage of your paraprofessionals, certificated teachers, and certificated Type B administrative hires are typically trained in Alaska?
2. What is the average educator turnover in your school district for the last five years for:
 - (a) paraprofessional staff?
 - (b) teachers?
 - (c) administrators with a Type B endorsement?
3. Does your school district currently operate a program aimed at preparing students for careers in public education? If so, please describe.
4. If you collect the following data, please list the percentage of high school graduates going on to:

	In-state	Out-of-state
College	_____	_____
Military	_____	_____
Other post-secondary training	_____	_____

5. Do you participate with universities in-state or outside of Alaska for educator professional development, student teachers, teacher and/or student mentors, education research, or other activities related to improving the quality of your education workforce? If so, list the universities.

Process of analyzing data

Analysis of the data was conducted in multiple ways. First we summarized the data overall by topics of major importance. Second, themes were developed across all of the interviews in order to support recommendations that would appeal to all organizations. This process was done by first applying codes to the interview comments within each question and then across all questions. All interviews were also coded with a demographic code relating to their role. These codes are listed with a “d-” preface in the code lists shown below. Frequency of codes were considered within the general categories of Issues, Solutions, and Change. All codes, their definitions and overall frequency are in the file called “TQQ Interview Analysis Sep2014_code_defns”. All of the quotes associated with the codes are listed in the file called “TQQ Interview Analysis Sep2014_allcodes_withquotes”.

A first step to analyzing themes was to look at the frequency for each code to see what ideas were discussed most across all interviews. Be aware that multiple codes can be applied to each thought and typically the unit of coding is each thought within a response to an interview question.

Comparing across the general categories of Issues, Solutions, and Change provides a more in depth analysis. This was done by considering overlaps across all three categories or ideas that only come up in some of them. The term for this analysis is called co-occurrence. A co-occurrence table is shown in the results below.

Here is a snapshot of the codes ordered by highest to lowest frequency of use.

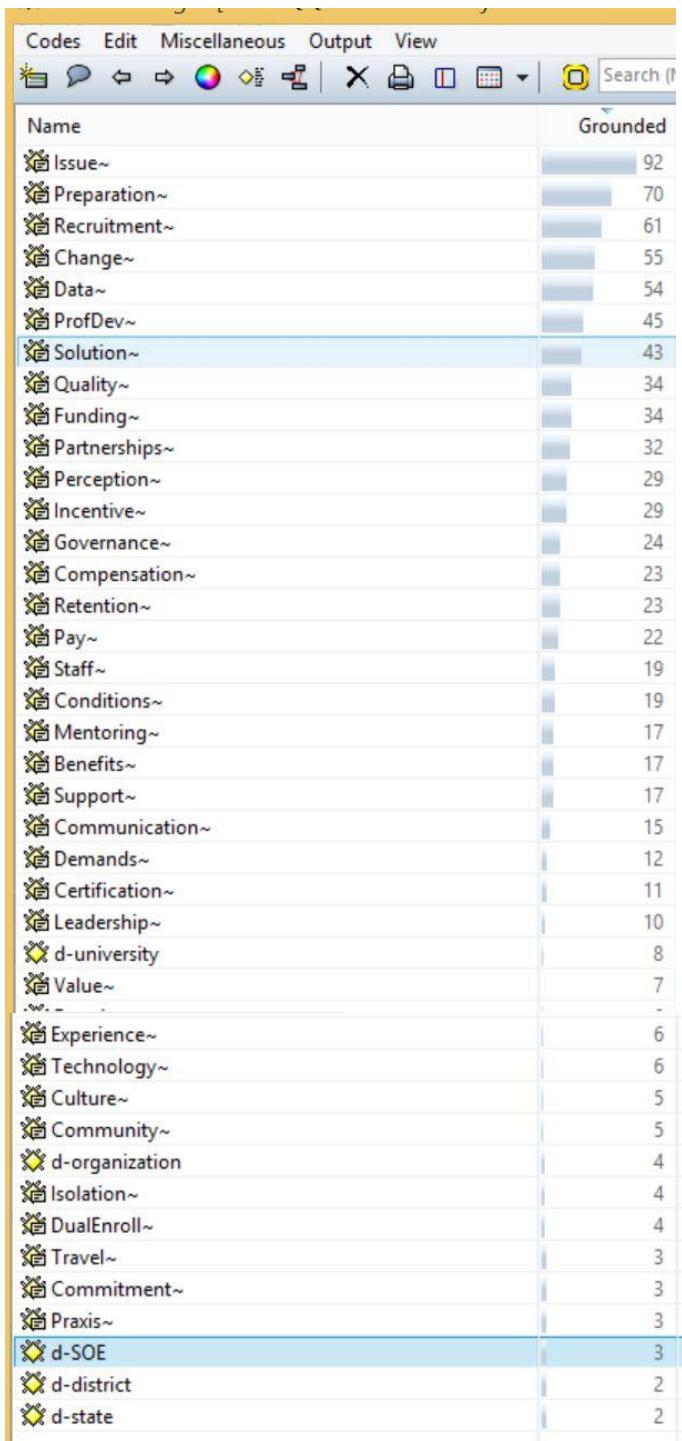


Figure 1: Snapshot of codes and frequencies from ATLAS.ti.

Results

Frequencies

Among the general categories of Issues, Solutions and Change the frequency table shows that Issues were the highest with 92 quotations dealing with such. Change was discussed in 55 of the quotations and Solutions in only 43. This speaks to the generally agreed upon thought in the state that we know the problems but continue to have difficulties actually determining and implementing solutions.

Issue

Among the broad categories there are change, issue, and solution. Issue refers to ideas suggested as problems, bottlenecks, difficulties.

Solution

Among the broad categories there are change, issue, and solution. Solution refers to ideas suggested that address an issue or suggest change in a specific and actionable manner.

Change

Among the broad categories there are change, issue, and solution. Change refers to ideas suggested for modification without providing a solution.

Other high frequency codes include Preparation, Recruitment, Data, and Professional Development all with at least half as many as the highest code. Low frequency codes that occurred less than 10% of the highest code include Value, Technology, Experience, Culture, Community, Isolation, Dual Enrollment, Travel, Commitment, and Praxis.

Co-occurrences

Among Issues the highest co-occurrences are listed on the left-hand side of Table 1. A number such as 0.10 in the table means that 10% of the quotations that have the code “Issue” also have the code “Compensation” attached to them, for example. The co-occurrences with Change and Solution are also shown as a way of understanding the overlap. For example, Preparation has a high frequency of co-occurrences with both Issue and Change but less so with Solution. On the other hand Conditions have a high co-occurrence with Issue but not so with Change nor Solution.

There is no general rule for a cut-off level on co-occurrences. The tables here show the highest with a random cut-off level; however, all codes are shown within the three categories in the excel file “cooc_TQQ Interview Analysis Sep2014 categories all.xls” and can be shared.

	Issue	Change	Solution
Preparation	0.13	0.12	0.08
Recruitment	0.13	0.08	0.13
Retention	0.13	0.05	0.06
Compensation	0.10	0.05	0.05
Conditions	0.10	0.06	0.03
Governance	0.10	0.05	0.02
Quality	0.10	0.13	0.05

Table 1: Issue category and high co-occurrences

In terms of Solutions (Table 2) the highest co-occurrences were with Recruitment and Funding followed by Partnerships, Staff, Mentoring, and Preparation. Quotations will provide specifics.

	Solution	Issue	Change
Recruitment	0.13	0.13	0.08
Funding	0.12	0.09	0.09
Partnerships	0.09	0.05	0.05
Staff	0.09	0.03	0.01
Mentoring	0.09	0.01	0.04
Preparation	0.08	0.13	0.12

Table 2: Solution category and high co-occurrences

In terms of Change (Table 3) the highest co-occurrences were with Perception, Quality, and Preparation. Quotations will provide specifics.

	Change	Issue	Solution
Perception	0.17	0.08	0.07
Quality	0.13	0.10	0.05
Preparation	0.12	0.13	0.08
Funding	0.09	0.09	0.12
Incentive	0.09	0.07	0.03

ProfDev	0.08	0.08	0.06
Recruitment	0.08	0.13	0.13

Table 3: Change category and high co-occurrences

Quotations: Preparation

Preparation refers to any form of teacher preparation program such as the standard 4- or 5-year program through universities or alternative programs to becoming a teacher.

Issue: Preparation

Out of the 92 quotes coded to Issues and 70 quotes coded to Preparation, there were 19 quotes that included both. Quotes cover 5 general topics listed below with one quote for illustration. All quotes are listed within the Word doc “issue & preparation”.

- principal preparation – numbers in recruitment, job tasks vs reward
“At the principal level, barriers include cost versus benefits of being a principal, small numbers in preparation programs, societal expectations for performance, the effort it takes versus the rewards earned.”
- student teachers – cost of travel for supervisors, get in field earlier, finding mentors
“I worry that we might be moving in the wrong direction in teacher prep concerning the time interns are spending in the classroom. This may not be true of UAF. For example, the new accountability system, once that kicks in, the general sentiment from teachers is ‘I don’t want a student intern in my class if I’m held responsible for student scores.’ I worry about how that impacts all of this.”
- recruitment – praxis barrier, need more local, look to aides to become teachers, FEA type programs not as active
- teachers – not prepared to teach mathematics, not prepared for reality, difficulty getting into UA program, need more in hard to fill fields
“Schools of education do not prepare teachers for the reality they face.”
- policy – state maintains those that negatively impact programs, not benchmarking against industry standards, SOEs not all of the problem

“Although we have new standards that are supposedly better, AK is still only requiring 2 math classes for HS graduation. Math prep is a huge barrier not just for college but career readiness too. Why do we continue that failed practice?”

Solution: Preparation

Out of the 43 quotes coded to Solutions and 70 quotes coded to Preparation, there were 8 quotes that included both. Quotes cover 3 general topics listed below with one quote for illustration. All quotes are listed in the Word doc “solution & preparation”.

- within the system– more math and pedagogy courses, new model for training teachers using a traveling professor, seamless transfer of credits within UA, interview former and current education students on how to strengthen programs

“I keep thinking of this traveling professor type thing that works with people in their own place. Example from Australia, special class for teacher aides, 4 days/week in classroom and took classes in the evening, 1 day/week they talked about what they did in the classroom, agreed to have Friday to do this discussion.”

- recruitment – more top students into field, higher achievers

“Improved teacher education programs would help attract high achievers.”

- financial – student loan forgiveness, paid internships especially rural

“The gist of these conversations is that education students struggle to make ends meet during their internship year. The rigorous internship schedule makes other employment challenging, yet tuition and living expenses still accrue. This is particularly true for nontraditional students who are interested in becoming educators but also have families to support while they are going to school. Paid rural internships might eliminate some of the financial and geographic hurdles that rural Alaskan students must overcome to earn their education degree. It also might give rural districts more opportunity to nurture local educators for their districts, and it might send a positive message to our education students that we value their contributions to the education of our youth. It has the potential to improve new teacher quality for rural Alaska by giving prospective teachers more mentored experience teaching in that environment.”

Change: Preparation

Out of the 55 quotes coded to Change and 70 quotes coded to Preparation, there were 13 quotes that included both. Quotes cover 3 general topics listed below with one quote for illustration. All quotes are listed within the Word doc “change & preparation”.

- status of profession – how teachers and the education system is viewed
“... not sure where to start to change the status of the profession. We have [Rep.] who has this wonderful idea of creating a cohort of elite students forming an education cohort, give them money / scholarships and then put them back out there into a profession that is stomped upon. When you read public media and there is a perception that teachers are not respected and will get beat up. We have to stop assuming that teachers are not competent or capable, look holistically at conditions where we are placing them.”
- UA education programs – rigor and quality
“Raise rigor of education programs. ... University needs to make it clear that we have BA standards. When an Alaska student applies to Washington or Oregon state schools they are excited, it’s a big deal, when accepted. When they get accepted to UA they aren’t so excited. That’s a reputation issue. While we are open enrollment, we don’t have to admit them to BA/BS and we shouldn’t be. ... We need to make that admissions piece clear to students, at least 2 tiers of entry. It is scary, if we raise prestige and salary then quantity will go down. Which to do first?”
- Grow more local teachers
“... wants to grow teachers in Alaska as they last longer and are better prepared.”

Quotations: Recruitment

Recruitment refers to an intentional attempt to get a person to join you. It can refer to teacher programs, hiring by districts, or targeting for other positions such as a mentor.

Issue: Recruitment

Out of the 92 quotes coded to Issue and 61 quotes coded to Recruitment, there were 18 quotes that included both. Quotes cover 4 general topics listed below with one quote for illustration. All quotes are listed within the Word doc “issue & recruitment”.

- Local recruitment – HS programs (FEA type), grants, support, disparity between student population and educator population

We need a different model of support along the way. If we can make people aware and train local teachers they will bring their culture in if they know they can.

We do not have, but should have, a statewide future educator program. We could do far more than we are doing to address this problem internally.

Some school districts do not offer mentoring/interest programs for high school students to encourage them to consider education as a future college path for them.

We had grants focused on teachers and targeted basic math and English, supported students through developmental through 100 level. Prior they only supported full time 100 level but this one covered part time and developmental as well. Targeting students as the whole student –teaching them how to be a student, intro to university, skills, technology, email, blackboard, attending class. A lot of the students were teacher aides and then take classes in schools at night. Our grant was only one serving students still finding their way, just thought about being teacher, get them on the path.

We are pursuing a STEP grant through DOL to try to increase number of sped teachers. There is always a gap.

Building a community for these students at UA, connecting them with other students while still in the village with similar interests, visiting UA to become more comfortable in setting, decreasing amount of time away from communities, all help to transition them to UA setting but also provide them with elements of community they need for success.

- Application pool – job fair attendance falling off, funding, less HS grads

Even our HR are not going to job fairs since attendance is just falling off. I'm not sure if that is the teaching profession not being attractive or if it's not cost effective to travel with local postings and accessing education associations and organizations and advertise through them.

- Challenges – rural practicum, conditions, compensation, reputation of profession

We need to increase the rural practicums, getting students out to rural AK. Even if we say we can offer you a job today if you go rural elementary, secondary, counseling it it doesn't work. We have an older student population, students are already site bound

with families, into community and don't want to go out. One challenge is the impact on teachers' children living in those communities, such as Pigeon English /village English.

Teaching is not an exotic or attractive field to go into today. For engineering, graduates start at \$90-100k/yr. Accounting – started out at \$50k+. ... There is a demand for teachers, teacher turnover is high all over the US, but getting students into the field is the challenge.

There are a lot of hurdles for students coming from rural AK to urban centers to pursue degree. Those hurdles come in many forms – culture shock, financial barriers, beyond urban vs. rural and AN culture of village vs. UA culture; deep community focus with emphasis on family deep, to extract yourself to go away is a huge hurdle.

- Lack of coordination – across organizations, across districts

Alaska lacks a coordinated approach between state agencies, university educator preparation programs, the legislature, and professional organizations in regard to changes in education policy. As a result, well intentioned changes sometimes make it more difficult to attract, develop, and retain, high performing educators.

Some rural schools have practices that encourage teacher recruitment and retention. They are effective practices, but they are not being adopted by other school districts. There are a lot of good ideas out there but not scaled to the state levels.

Solution: Recruitment

Out of the 43 quotes coded to Solution and 61 quotes coded to Recruitment, there were 12 quotes that included both. Quotes cover 3 general topics listed below with one quote for illustration. All quotes are listed within the Word doc “solution & recruitment”.

- People – FEA, profile of characteristics of successful educators, paraprofessionals

Find ways to address the needs of kids in our own backyard through increasing future educator programs in all school districts.

FEA serves rural districts, 10 currently, hoping to continue and expand. It was larger in the past.

As a state we must develop creative ways to recruit and market educators and determine who is likely to succeed. We need a profile of the characteristics of successful educators.

We need to recruit from within and provide a support system to help them be successful,

Paraprofessionals pursue degrees in education, so creating a pathway makes this new component so exciting. Paraprofessionals do not need to have a degree now –two ways to become qualified, have an AAS or a district rep verify that you met standards, HS diploma, and pass paraprofessional praxis assessment (cut score).

- Communication – reality

Employing districts must clarify what they want when hiring and communicate accurately to new hires about the conditions they will work and live in.

- Financial – scholarships for math and sped teachers, loan forgiveness, compensation

We should look into putting money into scholarships for target needs areas such as math and special education as a recruitment method.

Raise salary and benefits, moving to a defined benefit would make a big difference in recruitment and retention and would allow the university to put more rigor into the program since people would be motivated to pursue profession.

Change: Recruitment

Out of the 55 quotes coded to Change and 61 quotes coded to Recruitment, there were 9 quotes that included both. Quotes cover 2 general topics listed below with one quote for illustration. All quotes are listed within the Word doc “change & recruitment”.

- Should do – incentivize, be honest, grow local, recruit the best and brightest
Incentivize becoming an educator
Incentivize teaching in remote schools
Incentivize teaching in hard to fill teaching positions
- Should learn – why students are not choosing education as a career

Understand why students are not choosing education as a career

Quotations: Retention

Retention refers specifically to keeping teachers, staff, and administrators from one year to the next.

Issue: Retention

Out of the 92 quotes coded to Issues and 23 quotes coded to Retention, there were 13 quotes that included both. Quotes cover 5 general topics listed below with one quote for illustration. All quotes are listed within the Word doc “issue & retention”.

- Working climate

There really is a lot of issues that teachers have to deal with in rural Alaska and in Anchorage. It is important to be honest and not to pretend that it doesn't exist. Districts and schools really need to look at how they can provide support and help for those dealing with really difficult situations.

I believe that some of the sentiments regarding teacher turnover are well intended but inaccurate. The idea that most teachers will stay permanently in rural Alaska is a denial of reality. Most teachers want to return to settings that reflect their own culture and have access to goods and services that are unavailable in rural Alaska.

- Compensation

Many folks started and took low paying jobs because they felt that the trade-off was insurance and good retirement plans. The good benefits no longer exist for them. When looking from the perspective of the superintendents, there is no incentive for the teachers to stay past their 5 years.

- Teacher and Administrator

70% of teachers leave within first seven years
Administrator retention is an issue as well. There needs to be a way to identify those districts that are short on administrative support and find a way to still address the needs of the teachers on sight.

- Lack of coordination

Alaska lacks a coordinated approach between state agencies, university educator preparation programs, the legislature, and professional organizations in regard to changes in education policy. As a result, well intentioned changes sometimes make it more difficult to attract, develop, and retain, high performing educators.

- Efficacy

Teachers leave because they don't feel their contributions are valued.

Solution: Retention

Out of the 43 quotes coded to Solution and 23 quotes coded to Retention, there were 4 quotes that included both. Quotes cover 3 general topics listed below with one quote for illustration. All quotes are listed within the Word doc "solution & retention".

- Investigate what has worked

Is there a way to find out why some successful areas have staying power? Look for best practices and find out their tricks. Also look at long term teachers and why they have stayed one when others haven't.

- Improve compensation

Raise salary and benefits, moving to a defined benefit would make a big difference in recruitment and retention and would allow the university to put more rigor into the program since people would be motivated to pursue profession.

- Share positives

Talk it up, talk about benefits. Most teachers don't stay in teaching, they go into other fields. They have people skills, organizational skills, they know how to find things, and they explain things to people. Every time someone says thank you, and asks, 'what can I do for you?', I suggest they put it in a letter – document it. This becomes a critical element. All of us have had a teacher who really encouraged us – we need those personal stories.

Change: Retention

Out of the 55 quotes coded to Change and 23 quotes coded to Retention, there were 4 quotes that included both. Quotes cover 2 general topics listed below with one quote for illustration. All quotes are listed within the Word doc “change & retention”.

- Data – how to use, what to gather
I'm not sure as a state, we are making the best use of it. We could make better use of data.
- Incentivize
Incentivize becoming an educator, Incentivize teaching in remote schools, Incentivize teaching in hard to fill teaching positions

OTHER CO-OCCURRENCES

Another way to look at the data is to focus on the four topics of most interest, preparation, recruitment, retention and quality, to further identify which other codes had the highest frequency of co-occurrence with each of them. This is outside of the structure of issue, solution, and change. Those with 10% or more of the quotations overlapping are highlighted in blue text.

	Preparation	Recruitment	ProfDev	Retention
Benefits	0.01	0.04	0.00	0.05
Certification	0.05	0.01	0.02	0.03
Communication	0.02	0.09	0.00	0.09
Compensation	0.03	0.06	0.00	0.05
Conditions	0.02	0.08	0.05	0.08
Data	0.17	0.14	0.05	0.07
Demands	0.03	0.03	0.02	0.00
Funding	0.03	0.10	0.08	0.02
Governance	0.08	0.01	0.10	0.00
Incentive	0.08	0.18	0.01	0.04
Leadership	0.01	0.00	0.06	0.06
Mentoring	0.01	0.04	0.11	0.00

Partnerships	0.10	0.03	0.10	0.04
Pay	0.01	0.05	0.02	0.05
Perception	0.09	0.02	0.00	0.06
ProfDev	0.06	0.02	0.00	0.03
Quality	0.30	0.07	0.03	0.04
Staff	0.02	0.03	0.12	0.14
Support	0.04	0.07	0.09	0.08

Table 4: Preparation, Recruitment, Retention and Quality co-occurrences with all other codes that had at least 10 quotes associated.

From this analysis Preparation co-occurs often with the Quality, Data and Partnerships. Recruitment co-occurs often with Incentive and Data. Quality, although with a frequency of 34 quotes overall, has no significant co-occurrences based on this list. Running an additional analysis (not shown) for only against all other codes showed that the highest co-occurrences were with Change (13%) and Issue (10%) illustrating that it is a cause for concern but at this time very little details or solutions have been presented. Retention co-occurred frequently with Staff, a code used when the interviewee talked about staff other than teachers.

APPENDIX B

Notes on Educator Retention Concept

Prepared by Scott MacManus, Assistant Superintendent, Alaska Gateway School District

It is clear that effecting any real lasting improvement for our failing “focus” schools requires systemic change, the kind that results from having “turn-around” principals and staff to effect that change for a long enough period of time that it becomes institutionalized in the school and community. These are special staff who have the requisite social and technical skills, and also the personal motivation to undertake and be successful in that mission. This is most particularly true of Bush Alaska, where the community may have low educational expectations and attainment, along with high rates of poverty and unemployment. Identifying, hiring and retaining educators (both principals and teachers) who are culturally adept and socially flexible, is one way to approach this problem. The intent of this proposal is to incentivize the recruitment and retention of these experienced, high quality educators into those schools having the highest staff turnover and lowest student performance. With this program it becomes progressively harder to walk away after a first year, with the potential loss of the Incentive.

These are educators who would have the following attributes:

- Is able to integrate comfortably into village/bush life and wants to be there
- Has an interest in and experience with, Alaska Native Culture(s).
- Possess excellent interpersonal and social skills with adults and children who are from various walks of life, is seeking a challenge and is open to change
- Has an established tradition of high instructional quality and high expectations
- Is socially adept and flexible
- Exhibits a non-judgmental outlook on rural Alaska

This idea incentivizes school administration to focus heavily on identifying, hiring and supporting their staff, and to ensure that their staff have the competencies required to be successful, and provides the financial incentive to stay. We would perhaps need assistance from the University (or other research) with identifying the specific attributes we are looking for in our staff, and then how to best discern those attributes during the hiring process. We have a set of questions that we like to use that helps us to see if a prospective hire can think on their feet, for example.

It is understood that the long-term solution to the problem of rural education is complex. These schools require teachers who are able to navigate the social contradictions of many rural Alaska communities, and who also possess a key set of principled attributes that will allow them to be effective both in the classroom and the community, and importantly, who will stay in those communities long enough to make a lasting impact on the students. This project is intended to hire experienced, successful bush teachers, and keep them in a single site for a period of at least four years and is open to all district teachers and new hires. These teachers would have to be successful based on not only the new Educator Evaluation system, but also meet identified goals for the specific site where they were working.

The concept works like this:

