



CONNECTING A DISJOINTED SYSTEM: A FIRST LOOK AT ALIGNING EDUCATION IN ALASKA

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We've heard it before, but it's still true: too many Alaska students don't have the skills they need to move on to the next stage of education or to get good jobs. Too many drop out of high school, and too few of those who graduate go on to college or other post-secondary education—and among those who do go on to post-secondary education, many don't graduate within four or even six years.

Employers report that young people entering the work world directly after they graduate from high school (or right after they drop out) don't have the reading, writing, and math skills necessary for many of today's jobs, even entry-level ones.

Alaska is not alone in these problems, but the high-school dropout rate is higher than the U.S. average and fewer graduates go to college. A third of Alaska's high-school students don't even graduate, and only about a third graduate and start college right away (Figure 1).

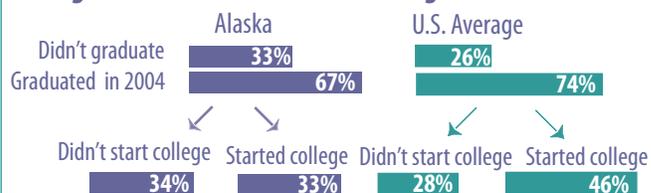
Many states have begun to address these problems by looking at education *alignment*—that is, coordinating the policies, programs, and mechanisms needed to support students as they move through the system from pre-school to elementary and high school and on to higher education or work.

Ideally, education levels would be coordinated so all students were prepared for the next step. In practice, many students—from kindergarten through college, vocational training, or work—enter without the knowledge and skills their teachers, professors, or employers expect. The students and their families are often frustrated that—despite indications to the contrary—they haven't been prepared for the next level. This frustration contributes significantly to the high dropout rates in both high school and college.

This publication summarizes a longer paper on the scope of alignment problems in Alaska and identifies areas where more research is needed or there are no data at all. It concludes with suggestions about steps the state should consider for improving alignment.

To move toward alignment, educators would synchronize their learning goals, curricula, and expectations. K-12 and early-childhood educators would agree on the skills children need entering kindergarten and first grade and how best to assess those skills. Likewise, businesses, higher education institutions, and schools would jointly determine the skills required for high-school graduates entering the workforce or college. To ensure that policies and resources supported such alignment, policymakers would need to collaborate in the process, working with educators from various education levels.

Figure 1. Students Who Started High School in 2000



Source: Digest of Education Statistics 2006

TRANSITIONING TO SCHOOL: EARLY CHILDHOOD EDUCATION

We'll talk first about early childhood education—that is, education children receive before entering kindergarten. This is important, because several longitudinal studies have shown that children who receive high-quality early education are less likely to need special education or drop out, and as adults earn more and are less likely to commit crimes and receive welfare.

Alaska is one of only 12 states with no state-funded early education. It has federally mandated special education pre-school and federally funded Head Start programs in many communities. These programs together enroll about 16% of Alaska's 3-year-olds and 22% of 4-year-olds. Many more students in urban areas are enrolled in private pre-schools.

Overall, about two-thirds of Alaska children attend some sort of pre-school, according to the 2007 State Preschool Yearbook. But there is little information on how well these various programs prepare students to enter school.

How Many Alaska Children Aren't Ready for School?

The main source of data on Alaska children's readiness for school is the Developmental Profile. Teachers administer this assessment when children enroll for the first time in public school, usually kindergarten but sometimes first grade. The profile includes information on many aspects of development—physical and social, language and literacy, and cognitive.

Teachers rate children as "routinely," "inconsistently," or "never" exhibiting 11 measures of school readiness.

Data from recent profiles show that fewer than 5% of children rate "no" in physical well-being and social development. But about 10% fail to demonstrate the requisite skills in each of the areas of language and literacy development and cognitive development. Between 20% and 50% demonstrate these behaviors "inconsistently."

These statewide results mask wide variations among districts. In many, more than one-third of entering students don't meet some of the readiness measures, and in a few 60% or more don't. Those districts lose valuable time trying to catch children up, and some children never catch up.

What are the Limits of the Data?

We don't know how effective Head Start programs are. Some school districts with communities served by Head Start have Developmental Profile results similar to the state average, while in others the majority of children are rated as deficient on one or more measures. Little research has been done on what approaches are most effective for preparing Alaska Native children for school. Also, we lack data on the extent to which Head Start grantees coordinate with local school districts or with each other.

Districts report Developmental Profile results to the state without identifying individual children. Although the profile is a useful tool for teachers and parents, the lack of identifying information means the data cannot be disaggregated by student characteristics such as ethnicity, gender, or socio-economic status. Therefore, the profiles are not useful for tracking efforts to improve Alaska children's school readiness or for exploring the effectiveness of different programs.

TRANSITION FROM HIGH SCHOOL TO COLLEGE OR WORK

What is the Issue?

Many Alaska high-school students graduate unprepared for post-secondary education or work. Alaska's colleges and universities find that many of their entering students—even those with good grades in high school—aren't ready for college-level work.

A 2006 national survey of 431 employers, published by Partnership for 21st Century Skills, reported that 42.4% of the respondents rated new entrants with high-school diplomas as "deficient" in their overall preparation for the entry-level jobs they typically fill, and 45.6% rated their preparation as "adequate." Almost no one (0.2%) rated their preparation as "excellent." Anecdotal information from Alaska employers suggests that Alaska's high-school graduates are no different from their counterparts outside.

Available data also indicate that many of Alaska's high-school graduates are not prepared for college—but even within Alaska, what constitutes "prepared" can differ among institutions.

How Prepared Are Students for College?

The majority of Alaska students who enroll in college in the state go to one of the three University of Alaska campuses—Fairbanks (UAF), Anchorage (UAA), or Southeast (UAS). All three require students to demonstrate they're prepared for introductory level courses in English and math, through previous test scores (such as the SAT) or university placement tests.

Some requirements are similar across all campuses, but others are quite different. Table 1 shows (in abbreviated form) requirements to place into

| CAMPUS | ACT | SAT | ACCUPLACER* | OTHER |
|--------|-----|-----|---|---|
| UAF | 17 | 430 | Not mentioned | COMPASS (52) ASSET (45) HS GPA 3.0 or higher and permission |
| UAA | 22 | 530 | 180 combined reading and sentence skills, including at ≥ 85 reading, ≥ 95 sentence skills | |
| UAS | n/a | n/a | 454 combined essay, reading, sentence skills, including ≥ 92 in both reading and sentence skills | Not mentioned |

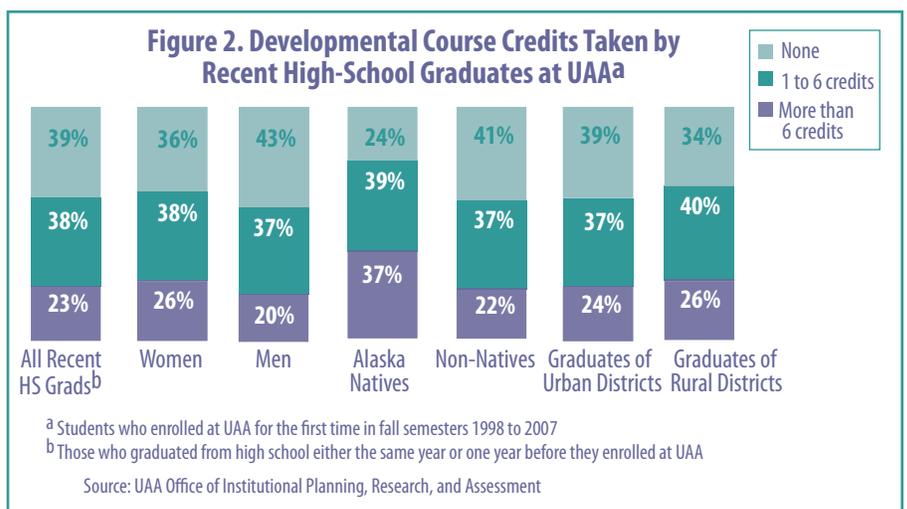
*Accuplacer scoring is not a simple cut-off score, but rather a set of minimum total score and subtest scores, simplified here for comparison.

"freshman level" English. The information in the table raises two issues. First, it's neither easy to find nor to interpret. While academic advisors at the universities certainly know and can explain the requirements, prospective students, their parents, and teachers may be unable to get any clear sense of the actual skills and knowledge students need, or how they will demonstrate their proficiency. The other notable point is the difference in SAT/ACT scores required for entry into English 111 at UAA and UAF: SAT of 530 versus 430, ACT of 22 versus 17. That means students must score a bit above the mean (about 59th percentile) at UAA, but in the 20th to 30th percentile range at UAF.

Students assessed as unprepared are directed into "developmental" courses—which often don't count towards their degrees.

Data available at UAA allow us to see how many entering students had to take developmental courses. Among recent high school graduates enrolling at UAA for the first time, 60% take at least one developmental course. Almost one-quarter take more than 6 credits of developmental courses (Figure 2).

This analysis includes all students who enrolled at UAA for the first time in the fall semesters from 1998 through 2007. Further, we focused on "recent high-school graduates," defined as those who had graduated from high school either the same year as they enrolled at UAA or one year earlier. Thus, for example, students entering in fall semester 2007 were considered recent graduates if they had graduated in 2007 or 2006. Over the 10 fall semesters we examined, 15,713 recent high-school graduates enrolled.



We disaggregated the data on recent high-school graduates to look at the numbers of Alaska Natives and non-Natives, men and women, and graduates of urban or rural Alaska high schools. Ethnicity was self-reported. Urban graduates are those who graduated from high schools in the Anchorage, Fairbanks, Juneau, Mat-Su or Kenai school districts; rural graduates are those from all the other districts. (About 15% of recent graduates were from other states or countries, or the location of their high school was unknown.)

It's worth emphasizing that all but one of these sub-groups averaged high-school grade point averages (GPAs) of 3.0 or better. Men's average GPA was 2.98. We looked at the number of developmental credits these students took, categorizing these as none, 1 to 6 credits, or more than 6 credits.

Figure 2 shows that men are somewhat less likely to take developmental courses than women and to take fewer credits if they do. This may mean that men score better on placement tests (despite their slightly lower GPAs), or that they disproportionately enroll in programs that don't require college-level English or math (e.g., certificate programs in vocational fields). It's also possible that they are more likely to find ways around enrolling in recommended developmental course work—such as getting the professor's permission to enter a college-level course.

Alaska Natives are about 30% more likely than non-Natives to take at least one developmental course, and about 70% more likely to take more than 6 developmental credits. Graduates of rural high schools are somewhat more likely (about 8%) than graduates of urban high schools to take developmental courses.

How do the thousands of UAA students who take developmental courses do? Unfortunately, they're not highly successful. Overall, recent high school graduates pass just over half the developmental courses they attempt (Figure 3). Women are more successful than men and non-Natives more successful than Alaska Natives. There is little difference between students from urban and rural high schools.

How Prepared are High-School Graduates for Work?

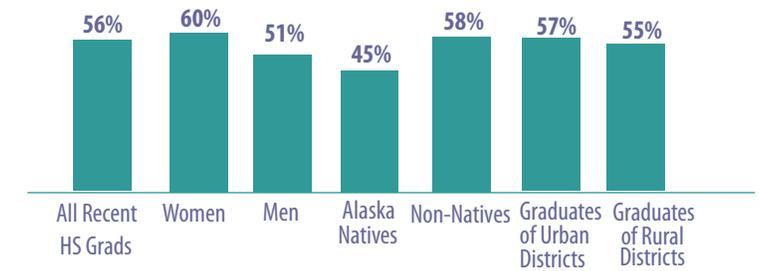
Alaska's students may graduate from high school unprepared for today's careers as well as for college. Although we lack comprehensive data for the state, we do know that employers often report they can't find qualified applicants for their openings. They also report that many of today's technical careers require as much mathematics or writing as entry-level college work.

A 2003 report on vocational education in Alaska noted that as accountability mandates and high-stakes testing were instituted between 1997 and 2003, the resources available for and participation in career and technical education in secondary schools declined. But no systematic data are available on how well prepared Alaska high-school graduates are to enter the workforce.

Do Current Requirements Prepare Students?

We've reported evidence that many of Alaska's students leave school unprepared for either college or work. But since many of these students did graduate from high school, does that imply that meeting the current graduation standards isn't enough to prepare students for college or work?

Figure 3. Percent of Recent Alaska High-School graduates Who Passed Developmental Courses They Took (By Course Type and Credit)



See Notes, Figure 2. Source: UAA Office of Institutional Research, Planning, and Assessment

Alaska's state standards in English and math stop at the 10th grade level; science standards include 11th grade. The High School Graduation Qualifying Examination (HSGQE) is also the 10th grade level Standards-Based Assessment. Most districts require, in addition to the HSGQE, specific courses for graduation, without specifying the expectations of those courses. Others require students to demonstrate a particular level of proficiency in several areas.

The published high-school graduation requirements of the districts we reviewed (Anchorage, Bristol Bay, Aleutians East, Lake and Peninsula, Northwest Arctic, North Slope and Chugach) didn't make it clear whether those requirements went beyond the state's 10th grade standards. Although it was beyond the scope of this study to review all 53 districts in the state, we interviewed superintendents of four districts (Chugach, Aleutians East, Lake and Peninsula and Bristol Bay) and four principals in two of those districts. We asked them about their academic expectations for 11th and 12th graders, and whether they believed their graduation requirements ensured that graduates would be to be prepared for post-secondary education, job training, or work.

The superintendents and principals expect 11th and 12th graders to have passed the HSGQE and to be on track to graduate. They also expect those students to begin focusing on preparing themselves either for college or for work. They emphasized that students need to go beyond the graduation requirements to be fully prepared for college or work.

Some districts reported that teachers tell their students the minimum graduation level of work is equivalent to about 10th grade and will not prepare them for college-level coursework. And all the respondents said students have opportunities to learn far more than the minimum—and that too few students take advantage of those opportunities.

SUMMARY AND RECOMMENDATIONS

Reviewing national research and available data on Alaska, we see that:

- Up to one-third of Alaska children enter the public schools with no pre-school experience.
- In some school districts, more than half the entering children don't demonstrate all dimensions of school readiness educators expect to see.

- Research predicts that these students are more likely to need special education services and to drop out of high school.
- In the small sample of districts we canvassed, just meeting the high-school graduation requirements does not guarantee graduates that they are prepared for college or for technical training.
- Many high-school graduates who do enroll in Alaska universities find they are not prepared for college-level work.
- Employers report that they find many recent high-school graduates unprepared to embark on careers.

To address these problems—especially lack of alignment—effectively will require coordinated efforts among parents, educators, policymakers, and researchers. One approach that many states (30 as of 2006) are using is formal councils established to address problems from pre-school through college. A review by the Education Commission of the States found that while the specific membership, funding structures, and goals differ, such organizations typically aim to:

- Expand access to early learning for children ages 3 to 5, and improve their readiness for kindergarten
- Smooth student transitions from one level of learning to the next
- Close the achievement gap between white and minority students
- Upgrade teacher education and professional development
- Strengthen relationships between families and schools
- Create a wider range of learning experiences and opportunities for students in the final two years of high school
- Improve college readiness and college success

The commission also reported several states’ successes, including reducing achievement gaps, increasing success on advanced placement testing, and raising higher education enrollment.

To be effective, councils need to work within a shared vision of the total system and commit to long-term efforts and real change. Andrea Venezia, a noted education researcher, cautions that, “convening a commission and holding cross-system discussions may be helpful, but these steps alone will not create meaningful K-16 reform. To be lasting and effective, the deliberations must be anchored in policy and finance reform and must reflect each state’s culture and history.” Any effort that hopes to be successful will have to convene key stakeholders, determine what additional data and analyses are necessary, undertake those research efforts, identify potential solutions, and make recommendations for change.

In our discussion we’ve identified both problems in the education system and gaps in the Alaska data. What don’t we know?

- We need better data on children who enter school unprepared: numbers, areas of unpreparedness, pre-school experience, and progress in elementary school. The new Developmental Profile assessment, aligned with the state’s early learning standards, has the potential to provide some of this information, if the Department of Education and Early Development is authorized and funded to link profile information with later student data and analyze it.

- We need better information on dropouts: numbers, demographics, and subsequent educational experiences and GED completion.
- We need to understand what districts expect of their 11th and 12th graders, and how they convey those expectations to students and parents. Do students and parents realize that the minimum graduation requirements will leave graduates unprepared for most post-secondary education and training and for many jobs? Do teachers understand what students need to succeed in college level work?
- We need to consider how to collect data about the success of high school and college graduates. If we want to hold high schools and universities accountable for preparing their students, we must be able to measure how well they do so. The state is creating a data system for tracking students in the public schools, from entry through high school graduation. What’s missing is the capability to link P-12 data with university data with workforce data. Legal safeguards on data use present a challenge, but it’s not insurmountable.

Finally, we hazard a few recommendations.

1. Alaska should create publicly funded, high-quality early childhood education that would be available to all families but voluntary. That would expand enrollment and help ensure that all students are prepared for kindergarten and first grade. Investing in school readiness will save money in the K-12 system and beyond.
2. We need to ensure that our high-school graduates are prepared for college or careers. Whether this should be through more rigorous high-school graduation requirements, better counseling, increased investments in career and technical education, or some combination of these and other approaches is not clear. But too many of our high-school graduates are unprepared for life.
3. The University of Alaska must be involved. UAF, UAS and UAA should communicate, as a single entity, their academic expectations for entering students. Increases in the number and quality of distance-delivery courses mean that students anywhere in the state can take classes, especially at the introductory level, from any campus. They should be able to do so without discovering they are unprepared for beginning college-level work.
4. The state should support these efforts and muster the resources to overcome the inevitable difficulties. Because change across so many institutions and interests is required, leaders should be prepared to persist over the long haul. Establishing a council to coordinate education at all levels is a step in the right direction.
5. Alaska is ahead of many states in developing its longitudinal student data system. It needs to continue to develop that system and improve links with other data systems.

This summary is based on a longer working paper of the same title. It will be available on ISER’s Web site, www.iser.uaa.alaska.edu, under Education Studies. That paper includes full references for research cited here.

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