

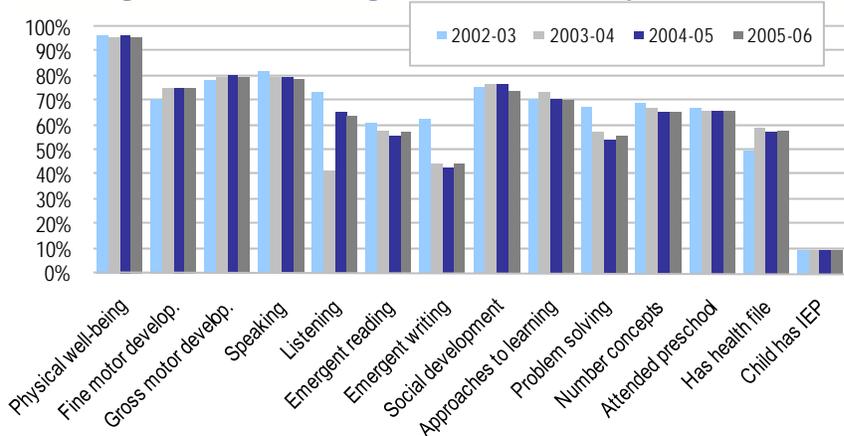
# 3. Ready to Learn

Children are not equal in their levels of preparedness when they first enter school. Students who are ready to learn are significantly more successful on a wide variety of academic and social measures.

Early assessment allows special attention to be given where needed and assists in developing programs to help families increase readiness.

Since 2000 teachers in Alaska have used a variety of subjective tools to assess all incoming students in an anonymous manner.

Percentage of children showing desired behavior in specific areas:



Data source: Alaska Department of Education and Early Development

SOURCE: Abridged from "The Alaska Developmental Profile User's Guide" by the Alaska Department of Education and Early Development, June 2003.

## The Alaska Developmental Profile

The purpose of the Alaska Developmental Profile is to assist school staff and parent/families with knowing the needs of kindergarten and/or first grade children soon after entry into public school in order to provide the foundation for successful completion of standards based public education and for success in life.

The ADP is completed for each child entering kindergarten or first grade to help families, schools, and communities support the educational needs of young children. The ADP includes developmental information in the areas of physical well-being and motor development, language and literacy, personal/social skills, thinking and cognition. Background information about the child's health, preschool experience and any special needs is also included.

The indicators on the ADP have been chosen as hallmark descriptions of entering kindergarten and first grade students that routinely appear on many assessment instruments.

The ADP was developed by a committee of Alaska kindergarten and primary teachers, public school administrators, Head Start staff, university professors, and parents with assistance from Dr. Rebecca Severieide, a nationally known specialist in early childhood education.

## Administering the ADP

The ADP is to be completed for children entering kindergarten or first grade in each Elementary School, in each public school including charter schools and schools providing distance delivery education. A student whose profile was submitted upon entering kindergarten does not need an additional profile in the first grade.

The ADP should be based on the child's skills using the accommodations or adaptations she or he typically uses.

The ADP Recording Form must be received in the Department of Education and Early Development by November 1st of each year. The data will help the Department of Education track trends in child development, statewide and within regions and provide assistance to districts and schools.

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## Alaska 20/20 notes

Pre-kindergarten programs such as Head Start, which serves children from low-income families, are considered by many educators to play a vital role in increasing readiness to learn. Alaska is one of ten states that do not have state-funded pre-kindergarten programs.

Early reading programs such as Alaska Reading First are also considered to be very important by the federal government, which has made grants available for such programs.

The data will help the Department of Education track trends in child development, statewide and within regions.

## More information

Alaska Developmental Profile: [www.eed.state.ak.us/tls/assessment/developmental.html](http://www.eed.state.ak.us/tls/assessment/developmental.html)

Head Start: [www.acf.hhs.gov/programs/hsb/](http://www.acf.hhs.gov/programs/hsb/)

National Institute for Early Education Research: [www.nieer.org](http://www.nieer.org)

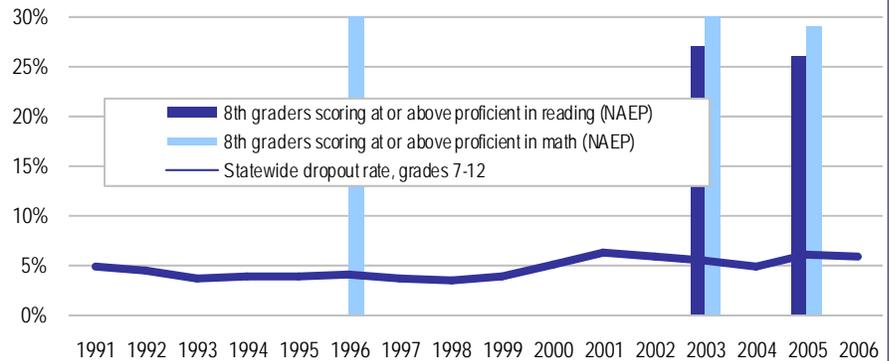
# 4. Students

Student performance, evaluated using high quality standards that are fairly administered, is the ultimate indicator of how effective our education system is.

No single indicator adequately measures student performance. Dropout rates roughly indicate high school participation and completion.

The best picture emerges from looking at a broad selection of factors such as attendance, test scores and the percentage of students who go on to college.

Alaska's dropout rate and 8th grade scores on NAEP standardized tests:



Source: Alaska Department of Education, National Center for Education Statistics

## Attendance & absenteeism

Doing well in school begins with showing up. Research consistently shows that high absenteeism rates are strong predictors of grade decline and other problems. Alaska public school data show that over the past five years the average attendance rate statewide has stayed at about 93% although there is likely wide variation between schools.

## Standardized tests

Test scores, despite their shortcomings, provide a rough comparison of student performance against standards and between schools.

State benchmark tests are administered in grades 3, 6 and 8 to test proficiency against state standards, although changes to the tests between years make comparison difficult. Since 1996 the California Achievement Test (CAT/6) has been administered in grades 4, 5, 7 and 9. Alaska students have consistently performed above the national average on the CAT/6. Alaska is currently in the process of replacing these with customized standardized tests.

Beginning in 2004 students who failed to pass the High School Graduation Qualifying Exam were denied diplomas. These students had opportunities to take the test in the 10th, 11th and 12th grade. In addition the No Child Left Behind Act requires schools to participate in the National Assessment of Educational Progress in grades 4 and 8.

## Dropout & graduation rates

Because of limitations in the way the state tracks graduation rates, which are an indicator of adequate performance,

dropout rates are a better but still rough approximation of high school completion. Where graduation rates are tracked by the Department of Education, it is the Department of Labor that tracks dropout rates.

The dropout rate is tracked by the state for grades 7-12. Although the overall trend is flat at 5 to 6%, the rate for

Alaska Natives is much higher at 8 to 9%, accounting for over 40% of dropouts statewide.

**In Alaska from 1990 to 2002 college attendance for 18 to 24 year olds decreased from 8.6% to 7.2%. Nationwide it increased from 8.6% to 9.2%.**

The data do not account for students who leave Alaska to go to school in another state, but do account for students who transfer to another school or alternative program that meets credit requirements. This indicator would be considerably more useful if it measured

cohorts of students, for example tracking how many students out of a given 7th grade class go on to graduate.

## Going on to college

According to data from the National Information Center for Higher Education Policymaking and Analysis in 1990 8.6% of Alaskans age 18 to 24 were attending college versus 8.9% nationally. Twelve years later in 2002 the Alaska rate decreased to 7.2% versus a national increase to 9.2%.

## Alaska 20/20 notes

Related indicators include college admittance tests (SAT scores) and college attendance directly from high school. Possible improvements include adding national dropout rate and NAEP data for comparison.

## More information

Alaska Department of Education & Early Development: [www.eed.state.ak.us](http://www.eed.state.ak.us)  
 National Center for Education Statistics: [nces.ed.gov/nationsreportcard/states/profile.asp](http://nces.ed.gov/nationsreportcard/states/profile.asp)  
 National Center for Higher Education Management Systems: [www.higheredinfo.org](http://www.higheredinfo.org)

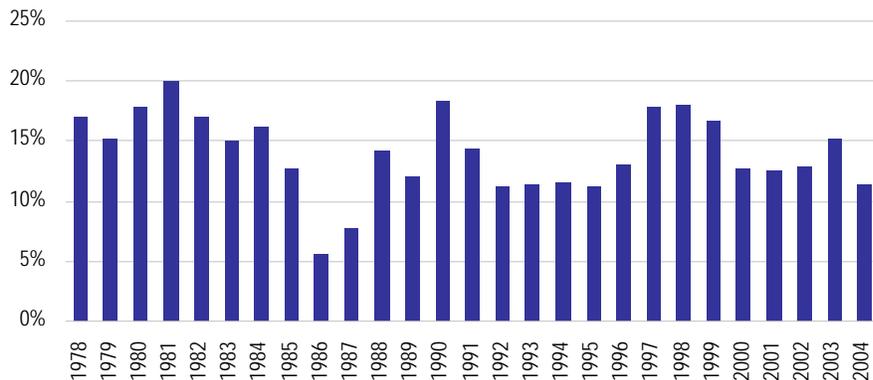
# 5. Teachers

Research consistently shows teacher quality and experience to be among the most important influences on student performance.

There is a lack of consensus on how to measure teacher quality. Peer review, years of experience, subject matter knowledge, academic degrees, skills mastery, and certification are all popular methods.

Recruiting and retaining top quality teachers is a challenge, especially in rural Alaska where once-higher salaries are no longer the norm.

Teacher turnover in Alaska, 1978 - 2004 (% new to district):



Source: Institute of Social & Economic Research

SOURCE: Abridged from "Teachers" by Melinda Bruno and Dan Robinson in Alaska Economic Trends, February 2003.

## Teacher shortages

The most current ten-year forecast calls for a modest 4 percent increase in total teaching positions from 1998 to 2008; however, a large portion of the current teaching workforce is expected to retire in the next decade. As already noted, retention is an ongoing concern. As a result, education officials are concerned about the state's ability to fill all of its expected openings with qualified teachers.

## Rural teachers

Rural Alaska school districts have always struggled to attract and retain enough quality teachers. Historically, the state has been able to offer significantly higher salaries than other states, but as the salary gap has narrowed in the last decade, applications have fallen and the problem has become more acute.

One of the reasons teacher turnover is high in rural Alaska is because most teachers are either from the lower forty-eight or from Alaska's urban areas. They are usually unprepared for the harsh climate, isolation, and cultural differences in rural communities. The average turnover rate in rural districts is 20 percent compared to 7 percent in urban districts.

Alaska Natives make up about 23 percent of the public school population, yet less than five percent of the teacher population. In rural areas the proportion of Native students is much higher. More Native teachers may reduce the drop-

out rate for Native students which is disproportionately high.

## Teacher salaries

In the mid-1980s, Alaska was flush with oil revenue and the state's teachers were making 170 percent as much as the national average teacher salary. Since then, however, the gap has narrowed significantly, and by the 2000-2001 school year Alaska teachers made about 111 percent as much as the national average.

The U.S. average for teacher salaries grew 31.5 percent in the decade from school year 1990-91 to school year 2000-01. During that same decade, Alaska teachers' average salary grew just 10.9 percent, last among all states and the District of Columbia.

The average turnover rate in rural districts is 20 percent compared to 7 percent in urban districts.

In 2000-2001 the average salary for beginning teachers in Alaska (with BA degrees only) is more than \$3,000 higher than in any other state. Offsetting higher beginning salaries is the high cost of living.

## Alaska 20/20 notes

The No Child Left Behind Act requires that all public school teachers be "highly qualified" in their core subjects by the end of the 2005-06 school year. This will be a problem for rural teachers since they tend to teach many subjects.

Teacher turnover measured as "% new to district" will be high if a district is hiring many new teachers. Measuring turnover as "% not returning to prior year's district" compensates for this but understates the effect of students being taught by new teachers.

## More information

Alaska Economic Trends article: [labor.state.ak.us/trends/feb03.pdf](http://labor.state.ak.us/trends/feb03.pdf)

Institute of Social and Economic Research: [iser.uaa.alaska.edu/Home/ResearchAreas/EducationStudies.htm](http://iser.uaa.alaska.edu/Home/ResearchAreas/EducationStudies.htm)

Teacher quality brief at Education Week: [www.edweek.org/context/topics/issuespage.cfm?id=50](http://www.edweek.org/context/topics/issuespage.cfm?id=50)

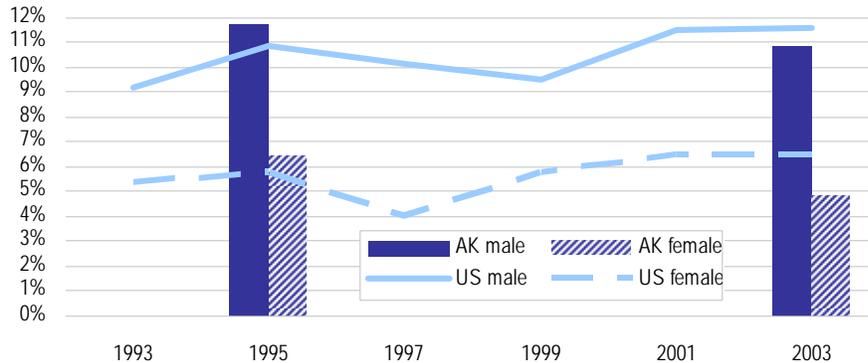
# 6. Schools

Safe, healthy and comfortable learning environments produce greater student achievement and higher teacher retention rates.

Moderate size schools are conducive to higher student performance, while there is less consensus about the effects of class size.

Adequate funding of preventive maintenance to reduce operational costs is important. So too are technology and equipment.

**% of high school students who report being threatened or injured with a weapon on school property one or more times during the past 12 months:**



Source: Alaska Youth Risk Behavior Survey 2003

## Crime & violence in schools

In the 2003 Alaska Youth Risk Behavior Survey of high school students 10.9% of boys and 4.9% of girls report having been threatened or injured with a weapon such as a gun, knife or club on school property within the past 12 months, little changed from 1995 reports.

Fewer than 5% of either boys or girls reported they did not go to school because they felt unsafe. Boys reported a slight increase of 1.3% from 1995, whereas among girls there appears to be no difference.

9.5% of Alaska high school boys report having had property stolen at school compared to 28.1% of girls. Although girls report a drop from 1995, boys report no real change.

Physical fighting reports among high school boys on school property has decreased by over 50% since 1995, from 25.0% to 12.0%, well below 18.0% for U.S. boys. Among Alaska high school girls the reported drop is less significant, dropping from 7.5% in 1995 to 4.8% in 2003. When compared to 1995 data, significant decreases have been reported by both sexes.

## Maintenance & operations

Education funding from the state is prioritized for capital improvement projects that are scored competitively based on criteria such as seriousness of life/safety issues, projected savings and number of unhoused students.

To be eligible for state funding districts must be in compli-

ance with all five areas assessed by the Alaska Department of Education and Early Development: maintenance management, energy, custodial, training and repair and replacement schedule.

According to *Preventive Maintenance: State of the State* the number of school districts in compliance with all five assessed areas was 49 of 53 as of August 2006, up from 38 of 53 in June of 2004. In 2004 the fifteen districts not in compliance were all located in rural Alaska, and four of the fifteen were not in compliance in any of the five areas assessed. In 2006 the four districts not in compliance were Aleutian Region (2 of 5), Kake City (3 of 5), Pelican City (0 of 5) and Pribilof Island (3 of 5).

**In 2003 Alaska high school boys reported 50% fewer physical fights on school property compared to 1995.**

## Alaska 20/20 notes

Senator Fred Dyson sponsored legislation in 1999 that made Alaska one of the few states in the U.S. to require parental approval for a student to participate in the Youth Risk Behavior Survey. Educators maintain the burden of meeting this unusual requirement invalidated the YRBS results in multiple years and continue to prevent the collection of data that could result in more effective education policy decision making.

Another measure of school violence recorded by staff instead of students is *suspensions/expulsions*, usually reported per 1,000 enrolled students. Other popular school measures are *school size*, *class size* and *pupil to teacher ratios*. Possible improvements include data on deferred maintenance and code violations.

## More information

Alaska Youth Risk Behavior Survey 2003: [www.epi.hss.state.ak.us/pubs/YRBS/2003/YRBS%202003.pdf](http://www.epi.hss.state.ak.us/pubs/YRBS/2003/YRBS%202003.pdf)

Alaska educational facilities information: [www.eed.state.ak.us/facilities](http://www.eed.state.ak.us/facilities)

Association of Alaska School Boards: [www.aasb.org](http://www.aasb.org)

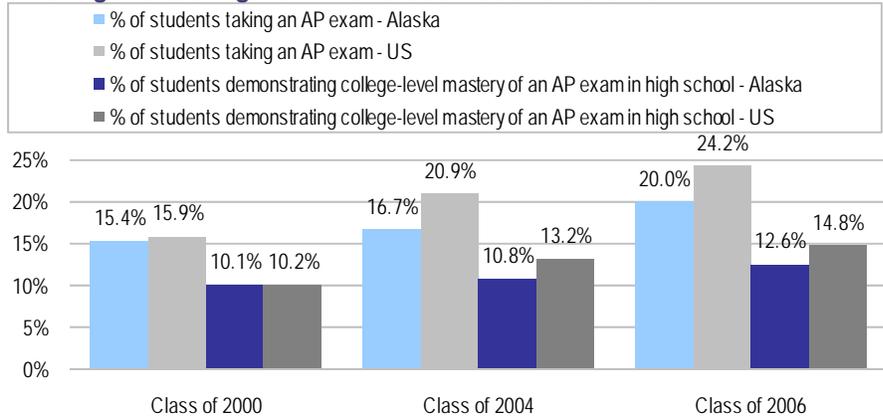
# 7. Curricula

High school education is organized around coursework, and the quality of the curriculum is a strong predictor of success in both the workplace and in college.

Because of this importance curricula should be available at the appropriate level for advanced students and for those facing challenges, such as learning disabilities or language barriers.

The beneficial effects of completing a high quality curriculum are even greater for minority students.

## Alaska continues to lag behind the US in the percentage of students both taking and scoring well in Advanced Placement exams:



Source: The College Board

SOURCE: Abridged from “Advanced Placement Report to the Nation 2005,” The College Board, 2005.

### Advanced Placement Exam

The College Board partners with colleges and universities to create assessments of college-level learning—the AP Exams—in 34 subject areas.

Most colleges and universities in the United States recognize AP Exam results in the admission process as a sign of a student’s ability to succeed in rigorous curricula, and they also award college credit or placement into a higher-level college course.

At the request of educators nationwide the College Board recently removed “Percentage of AP Students Scoring 3 or Higher” from its official AP Grade Reports. Educators rightly realized that evaluating an AP course based on what percentage of students taking the AP Exam scored 3 or higher was meaningless, since this metric could be inflated by reducing the number of students allowed to take the Exam.

To avoid the problems of this metric others have suggested the use of a metric that shows the percentage of students in a school taking AP Exams regardless of performance. Although this metric shows the extent to which a school is providing equitable access to AP for its students, by ignoring all performance data this metric does not convey the extent to which that access is to courses truly offered at the level of quality demonstrated by exam grades of 3 or higher.

The best single measure of equity and excellence in AP is

the percentage of students in a total population who had at least one AP experience resulting in an exam score of 3 or higher. This shows the proportion of the overall population—not just the AP classroom—that demonstrated college level master of an AP experience sometime in high school—a gauge of the extent to which the overall population is succeeding at advanced academics in high school.

## Alaskan continues to lag in the percentage of students both taking and scoring well in Advanced Placement exams.

### Alaska 20/20 notes

In 2006 Alaska Native/Native American students made up 1.1% of the student population nationwide, but only 0.6% of AP examinees, while in Alaska they made up 20.5% of the student population but only 4.4% of AP examinees.

By the same measures African Americans are significantly underrepresented, and Latinos slightly overrepresented.

The **Scholastic Aptitude Test (SAT)** is designed not to measure student achievement per se, but rather to predict success in college, a rough measure of how well the K-12 curriculum prepares students for college. Mean SAT scores for Alaska slightly increased over the past decade and are roughly on a par with the rest of the nation.

Alaska was one of four states that received an overall “F” on the Thomas B. Fordham Foundation’s 2006 assessment of state education curriculum standards.

Possible improvements include developing a measure of access to **vocational and technical education**. Additional measures could include **special education** and **distance delivery**.

### More information

Advanced Placement Exams: [apcentral.collegeboard.com](http://apcentral.collegeboard.com)

SAT scores: [www.collegeboard.com/about/news\\_info/cbsenior/yr2005/reports.html](http://www.collegeboard.com/about/news_info/cbsenior/yr2005/reports.html)

State of Alaska Special Education: [eed.state.ak.us/tls/SPED](http://eed.state.ak.us/tls/SPED)

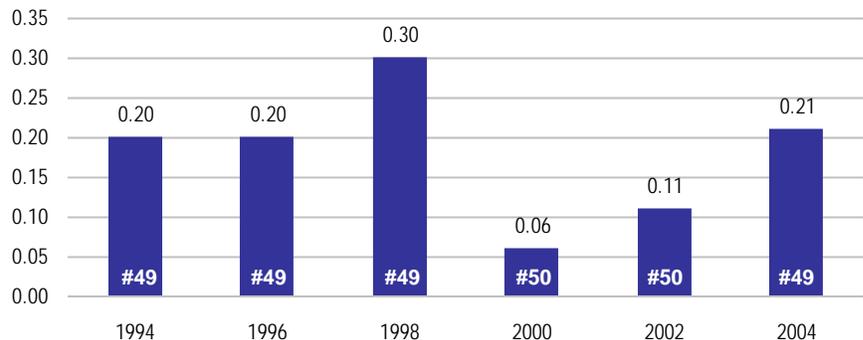
# 8. Postsecondary Institutions

Institutions of higher learning improve the quality of life for Alaskans by offering educational opportunities for personal and professional development. The ability of these institutions to attract students is a measure of their quality and cost.

These institutions make positive social and economic impacts by attracting students, staff and research dollars to Alaska.

Research produced by these institutions contributes to solutions for pressing public policy issues.

**In 2004 for every college freshman coming to Alaska from outside we lost four, ranking next-to-last among states in this import/export ratio:**



Source: National Center for Higher Education Management Systems

## Enrollment

Alaska Pacific University, Sheldon Jackson College and the University of Alaska (UA) serve the postsecondary education needs of Alaskans. The ability of these institutions to attract students from both inside and outside the state is a measure of how well they compare in quality and cost.

The percentage of Alaska high school graduates who choose to attend UA steadily increased from 18% in 1997 to 26% in 2005. The UA Scholar program, which offers a four-year scholarship to the top 10% of graduates from qualified Alaska high schools, has increased the percent of that group who attend from 33% in 1999 to 44% in 2005.

In that same period UA has attained modest increases in retention rates for first-time, full-time degree-seeking freshmen, to about 64%.

Alaska consistently ranks last or next-to-last in our “freshmen import-export ratio.” In 2004 for every college freshman coming to Alaska from outside we sent out four. Some of these students who come may stay, and some who leave may return, but this nonetheless remains a rough indicator of the perceived competitiveness of our postsecondary institutions.

## Public finance

The University of Alaska has reduced its reliance on state funding as a proportion of its overall budget over the past decade. In 1990 the UA budget was 60% state funds and 40% tuition/fees, federal/research and other sources. In

2004 this proportion was reversed, a significant change.

The existing level of state appropriations is consistent with similar institutions when compared on a per student basis and adjusted for Alaska factors such as geography, cost of living, and faster facility deterioration due to a harsh climate.

In 2003 the state investment of \$240 million in the University of Alaska generated an estimated economic impact of over \$1 billion.

**In 2004 for every college freshman coming to Alaska from Outside we lost four, ranking next-to-last among states.**

## Alaska 20/20 notes

The National Survey of Student Engagement (NSSE) collects information from undergraduates at four-year colleges and universities across the country to assess the extent to which students engage in

a variety of effective educational practices. Alaska Pacific University and the University of Alaska Anchorage participate in the program.

Another measure of postsecondary participation is the number of students enrolled in distance education courses delivered by out-of-state institutions.

Possible improvements include integrating data on enrollment from institutions other than the University of Alaska and working with participating institutions to report NSSE results; developing data on participation in distance education, breaking out enrollment by in-state versus out-of-state to give a fuller picture of competitiveness and reporting on the number of graduates from Alaskan postsecondary institutions who stay in Alaska to live and work.

## More information

National Center for Higher Education Management Systems: [www.higheredinfo.org](http://www.higheredinfo.org)  
 University of Alaska Institutional Research: [www.alaska.edu/swoir/](http://www.alaska.edu/swoir/)  
 Western Interstate Commission for Higher Education: [Wiche.edu](http://Wiche.edu)

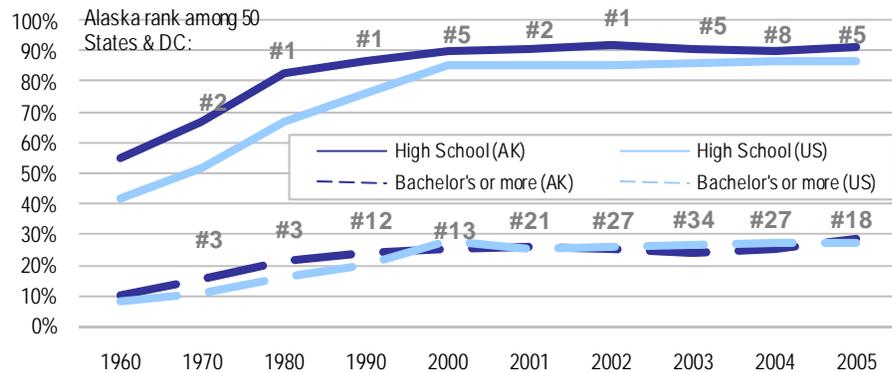
# 9. Higher Degrees

Alaska's economic strength and vitality depends on a skilled and educated workforce, whether we "grow our own" or import from outside.

This workforce is necessary to compete with other states in attracting industry and creating new employment opportunities.

Failure to do this means educated Alaskans will look outside the state for employment while those who stay will have more limited options.

Education level completed, persons age 25 and over:



Source: US Census Bureau (Current Population Survey Table 13)

SOURCE: Abridged from "Education in Alaska," Greg Williams, Alaska Economic Trends, December 2002.

## Pipeline drew educated workers

Many factors can rapidly change the educational profile of a community, including changing socioeconomic conditions and migration. When new, younger workers are attracted to Alaska due to rapid economic growth, they tend to come with a higher level of education than the resident older population.

During the 1970s and early 1980s as pipeline construction and the oil boom fueled rapid economic growth, a windfall of well educated "baby boomers" came to Alaska.

## Alaska compared to the nation

Alaska compares favorably with the nation in the percentage of its population that hold high school diplomas (or equivalent), bachelor's or master's degrees. However, at the highest educational levels, Alaska's population has a below average share of professional and doctoral degree holders: only 1.8 percent of Alaskans have professional degrees compared to 2.6 percent for the U.S., and only 0.9 percent have doctoral degrees, compared to a national average of 1.4 percent. These differences are likely due to labor market forces and the occupational mix in Alaska versus the rest of the U.S.

Although the percentage of Alaskans holding bachelor, graduate or professional degrees increased during the 1970 – 2000 period, Alaska lost ground when compared to other states. In 1970, Alaska was third highest in its proportion of people holding bachelor's or advanced degrees.

Alaska's relative position began slipping following the 1986 oil market collapse. By 1990 Alaska ranked 12th. In 2000 the state slipped to 21st place, with 24.7 percent of the population holding a bachelor's degree or higher, barely above the national average of 24.4 percent.

Both internal and external forces contributed to Alaska's inability to maintain its rank among states as one of the

highest in advanced degree attainment. The nation's high-tech, high-wage, growth of the 1990s largely passed Alaska by, resulting in fewer highly educated migrants to the state.

Alaska saw a loss of high paying, traditionally education intensive jobs in the federal government and oil and gas industry sectors. The pace and nature of future economic

growth will determine whether Alaska will retain its post-secondary graduates as well as attract graduates from the lower 48.

## Alaska 20/20 notes

Other measures of higher degree attainment include professional degrees and associate degrees.

Possible improvements include data for professional and associate degrees and break out bachelor's degrees from master/doctorate achievement.

**Alaska's overall education levels have continued to improve, but the state has lost ground relative to the rest of the U.S .**

## More information

Alaska Department of Labor and Workforce Development: [almis.labor.state.ak.us](http://almis.labor.state.ak.us)

Census educational attainment data: [www.census.gov/population/www/socdemo/educ-attn.html](http://www.census.gov/population/www/socdemo/educ-attn.html)

Education and earnings (see tables 1 and 10): [www.census.gov/prod/2004pubs/censr-15.pdf](http://www.census.gov/prod/2004pubs/censr-15.pdf)