Institute of Social and Economic Research
RESEARCH SUMMARY
R.S. No. 62
University of Alaska Anchorage • February 2005

# How Much Different Are Costs Among Alaska's School Districts?

The big differences among Alaska's school districts—in remoteness, climate, community amenities, and energy sources—also mean big differences in school operating costs. ISER's new estimates of the geographic cost differences among Alaska's 53 districts range from 7 percent to more than 100 percent above costs in Anchorage.

The map shows districts grouped by cost range; page 3 shows proposed and current differentials for each district. ISER developed these geographic differentials for the Alaska Legislative Budget and Audit Committee, which is considering revisions to the differentials currently used in calculating state aid to schools.

The existing differentials are set in state law and have been used since 1998; the legislature will decide whether to adopt any changes. Keep in mind that the differentials are just one factor in a complex formula used to determine aid for individual districts. That formula begins with a base amount per student, for students in all districts, that the legislature sets each year.

The proposed differentials are higher than the existing ones, which range from 1 to 70 percent above Anchorage's costs. We estimate that if the proposed differentials had been used in fiscal 2004, the state's costs for schools would have been about 10 percent higher.

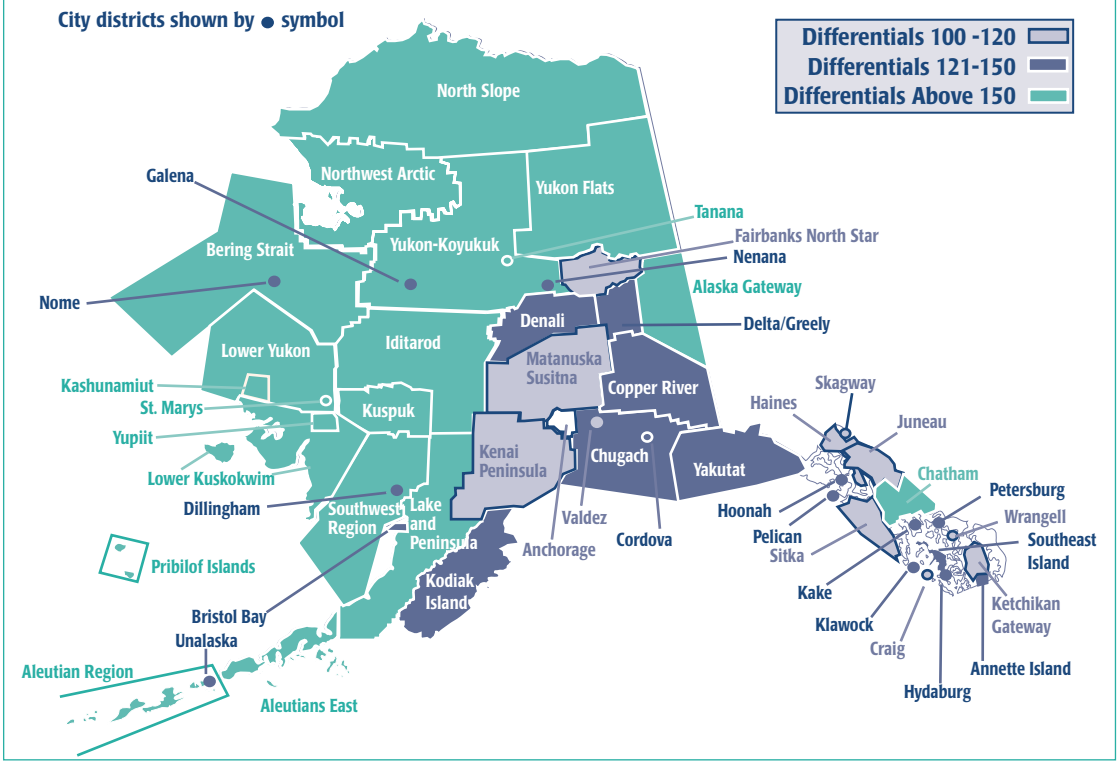
That's a rough estimate because—as we just noted—differentials are just one factor used to determine state aid for individual districts. The Alaska Department of Education and Early Development can calculate a more precise figure.

The proposed differentials are higher mostly because researchers used new methods to estimate some expenses.

- **Costs for teachers and administrators:** The ISER estimates reflect how much each district would need to pay to recruit and keep teachers and administrators with equivalent qualifications. This is a critical issue for many remote districts, where it's not uncommon for a third of the teachers to leave in a single year.
- **Costs for energy:** The ISER estimates incorporate what districts actually spend for lights and heat, rather than—as a previous estimate did—using a formula that calculates how much energy buildings with certain characteristics would be expected to use. Some districts face energy costs per student that are ten times or more Anchorage's.

This summary is based on a more detailed report, *Alaska School District Cost Study Update*, by Bradford Tuck, Matthew Berman, and Alexandra Hill (see back page).

**Figure 1. Proposed Geographic Cost Differentials Among Alaska School Districts**
**(53 School Districts, with Anchorage Costs = 100)**



## Background for the Study

How much school costs vary around the state is a critical issue for both the state government and school districts. The Alaska Constitution requires the state government to "establish and maintain a system of public schools." The state pays most of the costs of operating schools statewide; cities and boroughs and the federal government pay the balance. State aid to schools totaled about $700 million in fiscal year 2004—or close to a third of all General Fund spending.

Determining state aid to schools is a complex process that we can't describe in detail here. But in general, the state legislature first establishes a base allocation per student—in the 2003-04 school year, that was $4,169. That base allocation is then adjusted with a formula that takes into account geographic cost differentials, school size, number of students with special needs, and other factors.

The state periodically reviews the geographic cost differentials that go into the formula, and in 2002 it hired the American Institutes for Research (AIR) to develop new differentials, as possible replacements for those that had been in use since 1998. AIR delivered its proposed cost index in early 2003, but critics said that the proposed new differentials did not accurately reflect costs in rural areas.

So the Legislative Budget and Audit Committee asked ISER first to review and later to revise the AIR cost index. ISER researchers determined that AIR had used adequate methods for estimating a number of the costs schools face, but not for costs of teachers and administrators and energy.

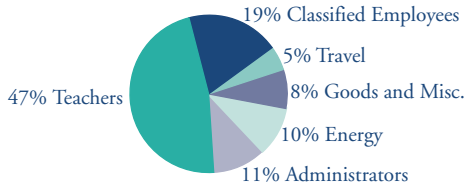
## ISER Estimation Methods and Data

Figure 2 shows the statewide average, among all districts, of the school operating expenses that go into the cost differentials.

On average, districts spend nearly 60 percent of their operating expenses on teachers and administrators. ISER researchers determined that a realistic estimate of differential costs for teachers and administrators in various districts would have to consider not only existing salary differences but rather what salaries it would take to attract and keep them in remote districts. This is critical, because to have similar educational opportunities across Alaska, all districts need to get and keep personnel with similar qualifications.

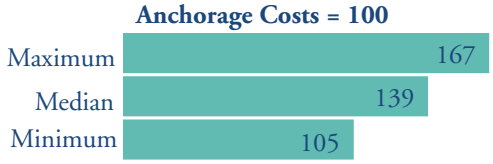
To assess what it would take to attract and keep teachers and administrators with similar qualifications, ISER (1) used data from the Alaska Department of Education and Early Development on teachers in the public school system—including data on salaries, levels of experience, and movements in and out of districts; (2) conducted a district survey, asking administrators what difficulties they had encountered in recruiting and keeping teachers; and (3) collected data from various sources about climate, community characteristics, and other factors that influence teachers' decisions about coming to and staying in districts.

**Figure 2. Average District Operating Expenses**
(Average Shares, All Districts, FY 2000-2003)



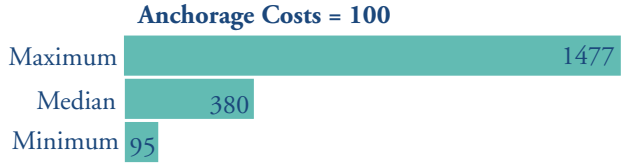

Source: Audited district expenditures, Alaska Department of Education and Early Development

**Figure 3. Relative Costs for School Districts To Recruit and Keep Comparable Teachers and Administrators**
(Average Costs Per Certificated Personnel, Relative to Anchorage)




Source: ISER calculations, based on data from ISER survey, Alaska Department of Education and Early Development, U.S. Census Bureau, and other sources

**Figure 4. How Much Do Energy Costs Vary By School District?**
(Average Costs Per Student, Relative to Anchorage, FY 2000-2003)




Source: ISER calculations, based on Alaska Department of Education data

Figure 3 shows ISER estimates of the salary differentials it would take to keep teachers and administrators with comparable qualifications in various districts. With Anchorage costs as a base (Anchorage=100), the range among other districts is from 5 to 67 percent above Anchorage costs per certificated employee, with a median of 39 percent above.

To assess energy costs, ISER used actual figures on what individual districts spent for electricity and heating in the period 2000-2003. Many things influence those energy costs, including the kind of fuel used, the distance it has to be transported, how it is stored, and how severe the weather is.

On average, districts statewide spend about 10 percent of their operating money for energy. But the range among individual districts is wide. As Figure 4 shows, per student spending for energy—with Anchorage costs as a base—range from 95 percent to nearly 1,500 percent of Anchorage's per student costs. (That is, if Anchorage spends $1 per student, other districts spend anywhere from 95 cents to $15 per student. Total energy bills depend on the number of students.)

## Proposed and Current Geographic Cost Differentials (Anchorage Costs=100)

| Districts with Lower Cost Differentials | Proposed Cost Differentials | Current Cost Differentials |
|---|---|---|
| Anchorage School District | 100.0 | 100.0 |
| Matanuska-Susitna School District | 107.0 | 101.0 |
| Fairbanks NS Borough School District | 107.0 | 103.9 |
| Juneau Borough Schools | 114.5 | 100.5 |
| Wrangell City School District | 115.9 | 100.0 |
| Ketchikan Gateway Borough District | 117.0 | 100.0 |
| Valdez City School District | 117.0 | 109.5 |
| Kenai Peninsula Borough Schools | 117.1 | 100.4 |
| Skagway City School District | 117.4 | 114.3 |
| Sitka Borough School District | 119.5 | 100.0 |
| Haines Borough School District | 120.0 | 100.8 |
| Craig City School District | 120.6 | 101.0 |
| **Districts with Mid-Range Differentials** | | |
| Cordova City School District | 123.4 | 109.6 |
| Delta Greely School District | 124.1 | 110.6 |
| Petersburg City School District | 124.4 | 100.0 |
| Kodiak Island Borough School District | 128.9 | 109.3 |
| Klawock City School District | 130.2 | 101.7 |
| Copper River School District | 131.6 | 117.6 |
| Denali Borough School District | 133.2 | 131.3 |
| Nenana City School District | 133.8 | 127.0 |
| Annette Island School District | 133.8 | 101.1 |
| Dillingham City School District | 134.6 | 125.4 |
| Galena City School District | 139.1 | 134.8 |
| Hoonah City School District | 139.9 | 105.5 |
| Southeast Island School District | 140.3 | 112.4 |
| Yakutat School District | 141.2 | 104.6 |
| Unalaska City School District | 144.1 | 124.5 |
| Nome City School District | 145.0 | 131.9 |
| Kake City School District | 145.9 | 102.5 |
| Pelican City School District | 147.7 | 129.0 |
| Bristol Bay Borough School District | 147.8 | 126.2 |
| Chugach School District | 149.6 | 129.4 |
| Hydaburg City School District | 150.4 | 108.5 |
| **Districts with Highest Cost Differentials** | | |
| Chatham Region Schools | 157.6 | 112.0 |
| Alaska Gateway School District | 159.4 | 129.1 |
| Kashunamiut School District | 161.9 | 138.9 |
| St. Marys City School District | 162.4 | 135.1 |
| Lower Kuskokwim School District | 166.3 | 149.1 |
| Southwest Region School District | 168.5 | 142.3 |
| Pribilof Island School District | 169.1 | 141.9 |
| Yupiit School District | 172.3 | 146.9 |
| Kuspuk School District | 173.4 | 143.4 |
| Tanana City School District | 178.6 | 149.6 |
| North Slope Borough School District | 179.1 | 150.4 |
| Northwest Arctic School District | 182.3 | 154.9 |
| Yukon Koyukuk School District | 183.5 | 150.2 |
| Iditarod Area School District | 184.6 | 147.0 |
| Lower Yukon School District | 186.1 | 143.8 |
| Aleutian Region School District | 193.9 | 173.6 |
| Aleutians East Borough School District | 199.1 | 142.3 |
| Lake and Peninsula School District | 199.4 | 155.8 |
| Bering Strait School District | 199.8 | 152.5 |
| Yukon Flats School District | 211.6 | 166.8 |

## Summary

The Legislative Budget and Audit Committee asked ISER to do specific tasks: (1) review geographic cost differentials prepared by the American Institutes for Research; and (2) revise those differentials as necessary, to reflect—to the best of our ability—actual cost differences Alaska's school districts face.

To do that work we used all available sources of information, including data sets from the Alaska Department of Education and Early Development; U.S. census data at the community level; and the results of an ISER survey of school district administrators.

Our analysis is based largely on observations about the pool of teachers in Alaska during the past five years. We identified a number of areas where more information would have helped us develop more precise estimates of cost differences among districts. For example, it would have been very helpful to have more information about teachers' training and qualifications and about teachers' non-cash compensation, like health benefits and housing.

Future estimates of cost differentials could be improved if the state and the school districts regularly collected more kinds of data. Still, we believe the differentials we developed, if the state adopts them, would give districts reasonably equivalent buying power.

But we also recognize that providing equal buying power isn't necessarily the same as providing equivalent educational opportunities statewide. Our findings about the cost differences among districts have implications for state and school district officials trying to insure equal educational opportunities for all students, with the available money and other considerations in mind.

The full 50-page report, *Alaska School District Cost Study Update*, is available from ISER for $5.00 (plus postage if necesssary); call 907-786-7710. It's also posted on ISER's Web site at www.iser.uaa.alaska.edu and on the Alaska Legislative Budget and Audit Committee's site: www.lba.legis.state.ak.us

**Editor:** Linda Leask
**Graphic Designer:** Clemencia Merrill

**Research Summary (No. 62)**
ISER, University of Alaska Anchorage
Fran Ulmer, Director
3211 Providence Drive
Anchorage, Alaska 99508
(907) 786-7710
**Return Service Requested**

Non-Profit
Organization
U.S Postage
**PAID**
Anchorage, Alaska
Permit No. 107