

# Testing, Testing, Testing: Rural and Urban Responses to Alaska's High-Stakes Assessment Regime

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**Abstract:** Under both federal legislation called *No Child Left Behind* (NCLB) and state legislation, Alaska students now take tests to determine whether they have made “adequate yearly progress” (AYP) and are qualified to graduate from high school. This mandated high-stakes testing regime—unique in the Circumpolar North—faces implementation challenges in rural Alaska because of the historically pronounced achievement gap between Native and non-Native students. The researchers of this article compare the environment of schooling in urban and rural Alaska. Then, they report on the perceptions of rural and urban educators (teachers and principals) concerning the tests and the changes they have brought about in curriculum, staffing, school administration, and extracurricular activities following the first administration of these tests. The researchers conclude with a discussion of the costs and benefits of high-stakes testing, with emphasis on obstacles to successful implementation in rural Alaska schools, and provide an update on the progress that state educators have made following the initial implementation of the historic legislation.

## Introduction

In 1997, the Alaska State Legislature adopted a new statewide educational assessment system calling for Benchmark and High School Graduation Qualifying Examinations. The Benchmark examinations were to be administered annually to third, sixth, and eighth grade students. The High School Graduation Qualifying Examination (HSGQE) was to be given twice annually, starting with sophomores (grade 10) in the year 2000. This test was designed as a high-stakes examination:<sup>1</sup> students failing to pass the reading, writing, and mathematics sections by the effective date of February 2002 (later amended to 2004) would not receive high school diplomas.

This legislation, inspired by the national accountability movement in education,<sup>2</sup> and the School Accountability Act passed by the Alaska legislature in 1998, constituted the most significant changes to state schooling since the decentralization of rural education in 1975-76. The chief architect of the Alaska high-stakes testing system was (then) Representative Con Bunde (Republican-Anchorage) who envisioned the HSGQE particularly as an accountability measure. Responding to the authors' questions in 2001, he pointed out these concerns with the status quo:

There had been a universal concern from the business community. They couldn't hire functionally literate kids—they needed to supply them with a remedial education ... (W)hat does the high school diploma mean? Is it minimum competency, or is it an attendance certificate? (Bunde, 2001)

Legislators enacted a high-stakes testing regime in order to improve education for all Alaska children, but it would be implemented in a state with profound differences between rural and urban regions. Urban Alaska includes the nine boroughs that centre around large cities, free-standing unified municipalities, and other large communities on road systems. These include, in southeast Alaska, Juneau, Ketchikan, and Sitka; in south-central Alaska, Anchorage, Kenai Peninsula, Kodiak, Matanuska-Susitna, and Valdez boroughs; and in interior Alaska, the Fairbanks North Star Borough. About 80 percent of the state's population is urban under this definition, and what is left becomes "rural." The rural region makes up nearly 85 percent of the state's territory.

Rural Alaska has approximately 300 communities. The largest cities—Barrow, Bethel, Dillingham, and Nome—have populations of less than 7,000; most of the 300 villages and towns in rural Alaska have between 100 and 1,000 inhabitants. The communities tend to be physically, culturally, and socially isolated from the state's largest cities and from influences of the contiguous forty-eight states. Although some are on the state's road or marine highway system, most can be reached only by small planes (or barges in the summer).

The most significant difference between urban and rural Alaska pertains to ethnic homogeneity. A majority of places in rural regions are still inhabited by various Native ethnic groups, and more Natives still live in rural Alaska than in cities, although this pattern has changed over time in two respects. First, a small number of rural communities originally were Caucasian settlements, built on extraction of resources such as minerals, timber, and

fish. Over time, these communities attracted some Native residents. Second, the larger Native communities have become heterogeneous, as increasingly larger numbers of non-Natives have migrated to them. Nevertheless, the average rural resident is less likely to see people different from him/herself than is the resident of one of Alaska's cities. And, rural areas remain the homeland of Alaska's Indigenous cultures—expressed through blood relationships that frequently connect all members of a locality, and through rituals of sharing that reaffirm a sense of community and cultural identity (Morehouse, McBeath & Leask, 1984, 117–18).

These differences are compounded by the stark socio-economic contrasts of urban and rural Alaska:

- Rural residents have family and per capita incomes that are on average \$7,000 lower than those of urban residents. Costs for commercial products, on the other hand, are from 10 to over 100 percent higher in rural areas.
- The components of rural income diverge markedly from those of city income. Most rural residents hunt and fish for some part of their food whereas most urban Alaskans do not. Furthermore, a greater proportion of rural income is made up of transfer payments from the federal government and state social agencies.
- Full-time, year-round employment is available for only a small number of adult rural residents. Work is likely to be seasonal.
- Rural Alaskans do not have ready access to professional medical and dental care. Rates of infant and adult mortality are higher than those in cities.
- Rates of alcoholism, other substance abuse, suicide, and accidental death are higher in rural than in urban Alaska, and the impact of alcoholism on small communities is far more severe than in cities (Morehouse, McBeath & Leask, 1984, 121–22; ISER, 2001).

In this article, we consider the extent to which implementation of Alaska's high-stakes testing regime in kindergarten to grade 12 (K–12) schools took into account differences between urban and rural Alaska. We began collecting baseline data on implementation during 2000–01, the first full year of the new assessment regime. We conducted a census of school district superintendents statewide (75 percent responded) and also held interviews with teachers, principals, district staff, parents, and community members in five Alaska locales, both urban and rural (McBeath & Reyes, 2001).

During the 2001–02 school year, we broadened our investigation by asking principals and teachers questions about school improvement plans

and strategies. We conducted a census of all school principals, and 73 percent responded to the survey. We put the same questions to a random sample (n=624) of schoolteachers; some 53 percent of urban and 49 percent of rural teachers answered. In addition, we returned to two of the five sites visited the previous year for follow-up interviews and visited an additional rural site (McBeath & Reyes, 2002).

The discussion covers four topics. We begin by comparing the conditions of schooling in urban and rural Alaska. Then we consider the ways in which educators have evaluated the high-stakes tests. The next section analyzes implementation through review of changes in curriculum, staffing, school administration, and extracurricular activities. The final section presents a preliminary analysis of the costs and benefits of high-stakes testing. We conclude with observations on the implications of rural-urban differences in meeting educational needs of Alaskans.

## **Two School Systems**

The differences between rural and urban schools are significant enough to be characterized as two separate systems. Of course, until the late 1970s, most rural schools were administered and operated differently than schools in Alaska's cities. They were either Bureau of Indian Affairs' (BIA) schools or under control of the territorial and then the state-operated school system (Darnell, 1972), a condition that lasted until the closure of the State-Operated School System in 1976 and the termination or transfer of BIA schools to the state by 1982. Rural schools today remain distinctive from urban schools in governance, finance, curriculum, staff, and outcomes.

### *Governance*

Urban schools belong to municipal or borough school districts. Although independent with respect to selection of superintendent, recruitment of teachers and school staff, establishment of curricula, and development of policies for student behaviour, the urban schools are checked financially (operating and capital budgets) by the relevant local government unit. Some rural schools operate as city school districts in first-class<sup>3</sup> cities (e.g., Nenana, Galena, Dillingham), or as borough school districts (e.g., North Slope, Northwest Arctic, Yakutat). Most, however, are governed by a Regional Educational Attendance Area (REAA) board. These legislatively-created school districts—products of the rural school decentralization act of 1975—are autonomous. They report directly to the state Department of Education and Early Development (DEED) without the interference of local government bodies.

### *Finance*

The financial plans of most rural schools differ from urban ones. The regional boards (REAAAs) receive 100 percent of their funding from state and federal governments. They have no taxation powers, and may receive no local contributions to education (as there is no local tax base, in most cases). The rural city and borough school districts do receive contributions from local governments, but these are unlikely to be as large (reaching to 35 percent of their budgets) or as directly based on property taxation as the contributions from urban local governments.

There is a clash of perceptions concerning the funding of urban and rural Alaska schools. Urban legislators and school leaders contend that their schools are short-changed because urban taxpayers must contribute to the costs of education while rural residents do not. Too, they argue that the funding formulas benefit rural more than urban schools. Rural legislators and school leaders, on the other hand, contend that rural schools receive insufficient funds and are discriminated against in the state's funding formulas. The state's foundation formula always has attempted to compromise rural and urban interests. It both requires a local contribution from urban schools and limits the size of that contribution in order to reduce statewide disparity in education funding. In the mid-1990s, the school foundation formula was revised significantly, and the rebalancing seemed to favour urban schools (see Berman, 2001 and Education Funding Task Force, 2001). (In 2007, a joint legislative task force is studying the foundation formula again.)

Rural schools are more costly to operate than are urban schools because they are remote and isolated, and because they lack any economies of scale. Their maintenance and administrative costs are significantly higher than those of urban schools.

### *Curriculum*

The curricula of rural schools are different from those in urban settings. They lack the variety of programs and courses that students expect to find in any American school. For example, they are unlikely to offer any foreign language (but may offer Native language training in early grades); they cannot offer specialized middle and high school courses in English, mathematics, the sciences, or the social sciences. Art instruction, if offered, most likely is provided by an itinerant teacher from the district office. There are no opportunities for band, orchestra, and of course, no high school football program. In some of the smaller rural schools, those with under thirty students, there may be no defined "courses" in the high school curriculum at all; instead, instructors will teach students in multi-grade classrooms on an individualized study basis.

### *Staff*

Neither urban nor rural schools have many Native teachers (about 2.5 percent of the total teaching force statewide), notwithstanding the size of the Native student population in the state (about 20 percent). Also of importance, rural schools have less veteran teaching staffs than urban schools due to a high teacher attrition rate. Our survey of a random sample of teachers indicated that 56 percent of rural teachers had been in their schools four years or less, as compared to 44 percent of urban teachers. Some 75 percent of rural principals had held their posts four years or less, as compared to 55 percent of urban principals.

More telling is the difference in length of time the educators had lived in Alaska. Nearly half (46 percent) of rural teachers had lived in the state ten years or less, compared to 18 percent of urban teachers; over half (52 percent) of rural principals had been in Alaska ten years or less, as compared to 15 percent of urban principals. In short, not only have educators in rural schools been in their positions a shorter time than their counterparts in urban Alaska, they have been in the state a relatively even shorter period.

The high turnover of rural educators is widely believed to have adverse impacts on student outcomes. As McDiarmid et al. noted: “Results from Alaska’s High School Graduation Qualifying Examination confirm that many of the remote rural districts where students have fared poorly on the test are precisely those that have experienced the highest rates of teacher turnover” (2000, 1–2).<sup>4</sup>

### *Outcomes*

It is the outcomes of education—primarily, students’ abilities to read, write, and compute—that have drawn the greatest attention to differences between rural and urban schools. In July 2002, the state department of education (DEED) released information on students scoring above and below proficiency on the third, sixth, and eighth grade Benchmark tests, by race/ethnicity. Table 1 presents these results for each grade level. The DEED press release summarized these data by noting:

The percentage of Alaska Native students performing in the proficient or advanced categories remained significantly lower than white students and lower than the statewide average of all students in all subjects and all Benchmark levels. The gap ranges from a 30.4% difference in Grade Eight Math to a 39.2% difference in Grade Six Reading. ([www.eed.state.ak.us](http://www.eed.state.ak.us))

**Table I.** Proficiency of students by race/ethnicity

	Grade 3 Below/not proficient	Grade 6 Below/not proficient	Grade 8 Below/not proficient
<b>Reading</b>			
Alaska Native	50.3 %	57.2 %	41.7 %
American Indian	23.2	27.6	19.3
Asian-Pacific Islander	29.9	37.3	22.1
Black, not Hispanic	25.5	37.6	30.7
Hispanic	26.1	33.2	19.5
White	14.3	18.0	8.6
<b>Writing</b>			
Alaska Native	66.5 %	48.3 %	59.2 %
American Indian	43.0	20.0	43.8
Asian-Pacific Islander	36.5	26.6	34.3
Black, not Hispanic	42.6	32.4	43.2
Hispanic	44.4	24.6	38.7
White	31.5	14.2	22.4
<b>Mathematics</b>			
Alaska Native	50.3 %	60.6 %	80.0 %
American Indian	27.2	32.7	72.8
Asian-Pacific Islander	28.1	42.3	59.0
Black, not Hispanic	37.6	51.9	77.3
Hispanic	37.4	42.0	70.8
White	18.9	24.1	49.6

Alaska Natives increasingly attend urban schools. In fact, the Anchorage School District has the largest number of Native students of any district in the state. Yet, about two-thirds of Alaska Natives attend rural schools, where the achievement gap with urban schools has been historically pronounced. Kleinfeld (1992) noted this in her review of the important issues facing Native education in the 1980s and early 1990s: "Of school districts where 85 percent or more of the eighth grade students are Alaska Native, none have scores at the 50<sup>th</sup> percentile [on the Iowa Test of Basic Skills, the instrument

then used by the state to measure educational achievement], the national average (p. 10).”

In the first federal ranking of “failing” schools, thirteen rural (but no urban) Alaska schools appeared on the national list. In these schools, 60 percent or more fourth grade students missed 50 percent or more of the questions on standardized tests in reading, writing, and math. Had the state included schools with less than ten fourth grade students (excluded because of concerns with statistical accuracy), fifty or more rural schools would have appeared on the list (*Fairbanks Daily News Miner*, July 4, 2002). The state’s list of schools failing to demonstrate “Adequate Yearly Progress” (AYP) for the 2001-02 school year included forty-seven rural schools and only four from urban school districts (Leal, 2002).

In sum, rural schools are indeed different from their urban counterparts in Alaska, and this warranted special attention to the way in which the state’s high-stakes test regime was implemented. We turn first to an evaluation of how educators in rural and urban areas initially viewed the tests.

### **Evaluation of High-Stakes Tests**

Alaska’s Benchmarks and HSGQE are based on content and performance standards adopted by the Board of Education in 1999, after a period of development and review by hundreds of teachers and other educators. This was the framework for a statewide standards-based K–12 education system. DEED also contracted with education consultants and a national testing firm (McGraw-Hill) to develop the Benchmarks and HSGQE. Table 2 indicates how Alaska educators we surveyed evaluated the high-stakes tests in 2002.

We noted some urban-rural differences in response. For example, rural teachers were somewhat more likely to give a negative evaluation of the use of assessments to measure students’ knowledge of standards and of what students have been taught. However, overall, there is greater variation when comparing all teachers with all principals. A different interpretation is that, despite outliers in each response set, educators have comparable evaluations. To them, high-stakes tests make sense in evaluating standards and students’ reading, writing, and math proficiency.

The tests, however, were problematical as a measure of what students had actually been taught. To a near majority of educators surveyed, they were poor indicators of teachers’ effectiveness, school quality, and students’ special needs. Thus, notwithstanding many differences of rural and urban educators’ perspectives on implementation, few challenged the validity of the assessments as measures of students’ knowledge of standards and their proficiency in essential skills.

**Table 2.** Evaluation of high-stakes tests as “poor” indicators of:

	Rural Teachers	Urban Teachers	Rural Principals	Urban Principals
Students’ knowledge of standards	23.5 %	20.7 %	10.2 %	13.9 %
Performance in reading, writing, and math	17.3	19.1	10.2	8.7
What students have been taught	41.8	39.1	26.9	25.5
Teachers’ effectiveness	46.9	60.3	45.2	48.2
Students’ special needs (special education)	54.6	67.5	64.5	66.4
School’s quality	46.9	58.6	52.7	59.4
	N=98	N=194	N=167	N=137

### **Implementation of the Assessment System**

#### *Changes in Curriculum*

Alaska’s high-stakes tests are based on state content and performance standards. However, at the first administration of Benchmarks and the HSGQE in March 2000, most school district curricula were not completely aligned to the standards. Announcement of test results in fall 2000, which showed low performance, particularly in mathematics,<sup>5</sup> prompted a flurry of changes in school curricula, an increase in professional development for classroom teachers, and a rush to hire more teachers in specific content areas. Table 3 notes these curriculum changes, by comparing responses of teachers and principals in rural and urban schools.

Rural educators (both teachers and principals) indicated, in spring 2002, a greater likelihood than urban educators to have added mandatory courses for students. Also, they were more likely to have changed the sequence of course offerings. The first version of the HSGQE had asked tenth grade students questions on geometry, for which many were unprepared because most had not taken geometry, and students from schools that introduced algebra late in high school were also at a disadvantage. Revision of the test in 2001-02 removed most higher-level math questions and focused on competency in basic skills, which the legislature required when, in 2001, it postponed the effective date of sanctions until 2004.

**Table 3.** Curricular changes in rural and urban schools

	Rural Teachers	Urban Teachers	Rural Principals	Urban Principals
Addition of mandatory courses	34.6 %	25.6 %	34.2 %	21.2 %
Change in sequence of courses	45.1	34.5	42.9	34.7
Change in alignment of course content to match state standards	81.3	69.5	88.1	87.2
Alignment of course content to test	48.9	45.8	50.3	43.1
Other content changes <sup>6</sup>	63.6	57.9	69.7	75.0
Move to an ungraded system	25.3	8.7	35.6	11.9
No changes planned at this time	19.6	23.1	18.4	23.4
	N=95	N=189	N=163	N=130

Over 80 percent of all the educators, with the exception of urban teachers, had changed the alignment of courses to match state standards. In fact, this was the greatest change observed in the implementation of high-stakes testing. On one of our visits to a rural site in 2001, we observed a large number of teachers working on extended contracts to ensure that course objectives and sample lesson plans were linked directly to state standards in reading, composition, and mathematics. Similar percentages (nearly half) of both rural and urban educators reported they had aligned course content to match the tests. This corresponds to research reported by Firestone, Mayrowetz, and Fairman (1998) who observed that assessment generates considerable activity focused on the test itself but makes less of a difference in instructional strategies.

A final but significant curriculum change showing variation was movement to an ungraded and individualized system funded by large grants from a private foundation (Gates). More than twice as many rural as urban educators reported this change—an easier change to make in rural schools with small numbers of students at each grade level.

#### *Changes in Staffing*

Table 4 considers changes in school staffing and activities, as schools responded to the high-stakes testing requirement.

**Table 4.** Changes in school staff and activities

	Rural Teachers	Urban Teachers	Rural Principals	Urban Principals
Added teachers with math endorsement	10.0 %	11.2 %	19.5 %	18.4 %
Added reading teachers	15.4	22.2	23.9	26.2
Added teachers with other endorsement	12.7	7.5	15.3	8.9
Encouraged teachers to take more course work	40.2	47.8	68.3	71.9
Increased number of in-service meetings	42.1	31.7	65.0	52.3
More planning time for teachers	16.7	10.2	38.3	38.7
Other instructional changes <sup>7</sup>	27.1	14.5	27.6	29.2
	N=92	N=186	N=163	N=130

Two main points can be emphasized about the nature of changes in staffing and staff activities. First, relatively few educators noted the addition of staff, which is a consequence of fiscal constraints on both rural and urban school districts in recent years. Principals were more likely than teachers to mention addition of staff having math or reading endorsements. We suspect that site administrators were better informed about these changes than teachers. Yet there was a pronounced difference between rural and urban educators on the addition of staff with other endorsements, such as elementary teachers.

Second, nearly half of the respondents mentioned increased professional development activities and in-services. The vast majority of principals believed they had encouraged staff development, whereas less than a majority of teachers claimed to have benefited from it. Similarly, more than one-third of principals believed teachers had benefited from more planning time, but only a small minority of teachers, who would be most likely to know if they had such time, agreed. Rural educators as a group thought they had had more in-service opportunities than did urban educators. Overall, significant numbers of educators saw increased professional development and in-service activities after the establishment of the high-stakes testing regime. Several respondents commented that accountability reform had led to clearer schemes for the ways in which teacher in-service and other

professional development time should be allocated, a finding similar to that reported in other states with high-stakes assessment systems.<sup>8</sup>

*Changes in Administration*

One might expect administrators to devote considerable attention to evaluation and monitoring of teachers, to see if they were aligning classroom content to state standards and the tests. Table 5 indicates what urban and rural educators had observed.

Relatively few respondents had observed addition of curriculum staff at the building level or reassignment of teachers to the district office, with rural educators noting more such changes than urban educators. A slightly greater percentage observed an increase in classroom visits and more frequent evaluation of teachers in the classroom. Again, rural educators noted these changes more often than urban educators.

**Table 5.** Administrative changes in rural and urban schools

	Rural Teachers	Urban Teachers	Rural Principals	Urban Principals
More classroom visits by administrators	14.6 %	8.9 %	45.3 %	39.1 %
Increased evaluation of teachers	14.0	12.0	26.5	22.7
More contact with district	26.1	14.4	50.9	39.7
More contact with building administrators	26.9	21.0	52.9	39.8
Added curriculum staff at school	13.5	12.0	21.3	6.9
Reassignment of teachers to district office	4.3	3.3	6.2	4.8
Other administrative changes <sup>9</sup>	13.0	5.5	13.0	11.1
	N=96	N=192	N=159	N=132

The most significant change, however, appears to be an increase in administrative centralization—and this change was observed more frequently in rural than in urban schools. Over one-quarter of rural teachers and one-half of rural principals noted increased contacts with the district office, and of teachers with building administrators. A smaller number of urban educators reported an increase of administrative centralization in their

districts or schools. Overall, the increase of administrative centralization matches the pattern found in other states that had earlier adopted state assessment requirements.

### *Other Changes*

We also wanted to understand the non-curricular changes made in connection with the implementation of high-stakes testing. Table 6 outlines several ways educators reported attempting to inform parents and community members about the tests or attempted to improve students' performance.

**Table 6.** Other changes in rural and urban schools

	Rural Teachers	Urban Teachers	Rural Principals	Urban Principals
Established tutoring systems, after school or in summer	74.0 %	70.8 %	73.6 %	90.6 %
Established school community program to improve student preparation	22.6	20.2	33.6	33.6
Increased communication to parents (notes home, newsletters)	61.3	48.1	78.7	69.9
Held meetings with parents to explain tests	58.9	33.1	77.6	75.7
Other changes <sup>10</sup>	8.4	4.6	10.4	8.1
	N=96	N=195	N=163	N=139

One change to the extracurricular life of schools with the onset of high-stakes testing has been the development of focused, after-school tutoring programs to help students who experience difficulty. Nearly three-quarters of rural and urban teachers and rural principals reported this development; 90 percent of urban principals noted it. On the other hand, just over 20 percent of teachers and a third of the principals had developed school-community partnerships to assist students in their preparation for the exams.

Most rural educators (61 percent of rural teachers and 77 percent of principals) had increased contacts with parents and community members to explain the new testing requirements. Fewer urban educators thought such communication was needed or had done so. Rural educators also were more likely to hold extra meetings with parents than were urban teachers (but not urban principals, three-quarters of whom claimed to hold such meetings).

### Costs and Benefits of High-Stakes Testing

In addition to the expense of developing new assessments and administering them to Alaska students (more than \$4 million in fiscal year 2002 alone), and the class time used for students to take tests, the high-stakes testing regime has significant costs for teachers, students, and schools.

Most educators reported an increase in their workload due to Alaska's implementation of high-stakes testing. Of teacher respondents, 71.3 percent of rural and 59.7 percent of urban teachers saw themselves spending more time, without additional compensation, at school and with students.<sup>11</sup> About 84 percent of both rural and urban principals believed they were working more hours to respond to assessment requirements. Too, nearly a third of teachers (30 percent rural, 32 percent urban) believed they had no input in the changes—a cost to their personal feelings of efficacy—as compared to only 11 percent of the site administrators who lacked input.

We have only impressionistic observations of other costs. These are based on the perceptions of teachers and principals who responded to an open-ended question asking that they share any other views they might have concerning implementation of the Alaska Benchmark and HSGQE in their schools. Nearly one-third of the respondents (31.1 percent) focused on what they believed were likely consequences of the state's high-stakes testing regime. Less than half of this group (14.6 percent of the sample) saw clearly negative consequences:

- Testing will ultimately force faculty to teach to the test, which is unsound pedagogically;
- The tests' focus on basic content areas will lead to the neglect of other, important, content areas such as the arts, music, physical, and vocational education;
- Testing absorbs time that should be used in instruction;
- Testing lowers the self-esteem of students who typically do not do well on standardized examinations;
- Testing will increase the drop-out rate of students, especially in rural areas;<sup>12</sup>
- Testing omits and further isolates Alaska's special student populations, particularly special education and limited-English-proficiency students.

Several rural teachers and site administrators made pointed remarks about the disparate impact of the high-stakes test regime on rural as compared to urban students. Said one rural teacher:

The HSGQE is a very tough test for bush students—there are so many varied levels of learning in our classroom let alone multi-grade classrooms. There should be some testing but it is very, very difficult to account for various differences in an urban school setting versus a bush setting.

A site administrator commented:

Candidly, bush schools need different assessment standards. There does not exist the cultural urgency for education characteristic of the westernized world in general. Also, there is not the assistance and support of parents with their students' work at home, common for urban schools. We need to face these realities and structure education for Alaska's rural students that is in sync with their culture and "laid-back lifestyle" to produce employable graduates for their local economies. Those who aspire to further their education on their own, can easily be accommodated, rather than assuming it is the norm.

A veteran teacher with experience in both rural and urban areas remarked:

I have always cared about my standardized test scores and used the results to address low areas in my teaching in both rural and urban schools. There seems to be a notion at the state level that by threatening rural districts with loss of funding and having outside management agencies coming in to take over will somehow motivate students, teachers, and administrators to higher performance. I have had the same high expectations for my students in both urban and rural schools and resent the recent frenzy that has occurred from these Benchmark tests. A healthier educational environment might be fostered by increased mentoring programs at both teaching and administration levels ... and by examining those schools and specific classes which are doing well to see what the optimum components of a successful environment are, accounting for all the elements of responsibility including attendance, health, instructional components, supportive administrators and appropriate funding for supplies and facilities.

The market model has driven the high-stakes testing movement in most states—that is, sanctions will motivate students to learn and prepare themselves for the workforce, which in turn will increase national productivity. This untested hypothesis underlies the legislature's adoption of the assessment and accountability system in Alaska as in other states.

Yet there are potential benefits to high-stakes testing in Alaska, such as a comprehensive focus on low-performing students and their proficiency in basic literacy skills, improvement of educational achievement for Alaska Native students,<sup>13</sup> and clarification of the goals and objectives of schooling for teachers, students, and administrators.

Slightly more than half of the educators responding to the open-ended question (16.5 percent of the total sample) saw the consequences of the test regime as primarily positive for these reasons:

- High-stakes tests increase student motivation;
- Tests raise the expectation levels of students, teachers, and administrations, which in turn will lead to better educational outcomes;
- The tests are good diagnostic and assessment instruments;
- Testing focuses and clarifies the Alaska school curriculum; and
- High-stakes tests increase the accountability of students, teachers, and schools in Alaska.

Furthermore, our limited interviewing of Native parents and students at two different rural sites indicated strong support for high-stakes testing, which was unexpected. Two rural high school students captured the sentiments of many classmates when they remarked:

It gives you the basic knowledge to graduate from high school. It [HSGQE] gives you a chance to prove yourself ready.

Before you had to be at school; now you have to actually know something.

The small sample of Native parents we interviewed also thought the idea behind the tests was sound because, in their experience as life-long residents, schools had not adequately educated students, especially at the secondary level. One parent stated:

Schools in this district have been doling out high school diplomas knowing that students did not have the skills to receive them. ... (School personnel) should set a standard, and a date, and stick with it. ... A standard is for everyone. Just because I am Native does not mean I can't pass a test.

## Conclusions

Alaska's new assessment and accountability system is the largest educational reform in the state's history and a reform pattern that is different from that of other Circumpolar North countries.<sup>14</sup> Our focus has been on the different obstacles and issues that rural, as compared to urban, schooling faces in the introduction of a new testing regime. Rural schools follow the same rules as urban schools but constitute a distinctive system. They have a different governance structure, finance, staffing, but of most importance, they exist to meet the educational needs of rural and Alaska Native peoples.

We studied implementation of the reform over its first two years by surveying educators (teachers, principals, superintendents) and by conducting interviews with educators, parents, students, and community members in six sites, both urban and rural. We found support for the Benchmarks and HSGQE as measures of students' knowledge of the state's new standards-based educational system and as an indicator of students' proficiency in reading, writing, and math.

Implementation of the testing regime was not complete until 2004, when the HSGQE "counted." Our review of changes in the educational process shows strong efforts in the realignment of curricula to match state standards, but weaker attempts to prepare school staff for new instructional demands, and to monitor and assist educators to use the high-stakes tests as a vehicle for school improvement instead of as a top-down control. Too, educators have attempted to inform parents and communities of the changes while seeking new methods to assist students to meet the requirements. We observed greater implementation efforts on the part of rural than urban educators who faced greater challenges to rural students.

Educators saw both costs and benefits to the new system, but remained divided as to the value of this type of reform. This lack of consensus reflects the very quick germination of the reform program as well as continued division among state policy-makers concerning the best objectives and the most appropriate means to pursue in educating rural youth. The earlier reform effort to rural education—decentralization of the state-operated school system in 1975-76—was successful in its first stage because Native leaders, legislators, and other state policy-makers, including educators, supported it. The divided opinion expressed by those who are implementing the high-stakes testing system induces caution as to the likelihood of success in significantly reducing the rural-urban achievement gap in Alaska. Nevertheless, Alaska's new testing regime has generated momentum and wide discussion among the general public for school improvement, which educational leaders can and should direct to positive purposes.

## Postscript

It has been five years since the implementation of high-stakes testing in K–12 schools in Alaska. This summary examines changes in student performance and briefly reviews significant changes in test instruments. In spring 2005, the Benchmark tests were replaced by the Standards Based Assessments for students in grades three through nine. For this reason, state department of education (DEED) administrators caution reviewing and comparing 2005 test results with those in previous years (DEED, 2007) as shown in table 7.

**Table 7.** Performance 2003–2005 for students in Grades 3, 6 & 8

Grade 3	Year	Reading	Writing	Math
	2005	79.1	74.8	75.5
	2004	73.8	58.8	72.2
	2003	73.9	59.8	71.8
Grade 6	Year	Reading	Writing	Math
	2005	75.9	71.5	64.9
	2004	70.2	76.2	64.6
	2003	69.8	75.0	64.3
Grade 8	Year	Reading	Writing	Math
	2005	80.3	73.7	62.1
	2004	67.8	76.3	63.8
	2003	80.3	73.7	62.1

On August 8, 2005, DEED officials announced during a superintendents' meeting the integration of the HSGQE with a tenth grade Standards Based Assessment (SBA). Students would receive two scores, one for the HSGQE, designed to meet state regulations, and one for the SBA, designed to meet the *No Child Left Behind* (NCLB) federal legislation. In 2006, a validation committee developed and recommended SBA proficiency levels to DEED. On the state website, the high school exam is now referred to as the "Grade 10 SBA/HSGQE" exam (DEED, 2007).

In our initial study, we found that state educators were particularly challenged in meeting the academic needs of Alaska Native students, especially rural students. The data in table 8 review the performance of this group of students during spring 2007, although these results cannot be compared with previous ones as the new tests are using the Standard Based Assessments (DEED, 2007).

**Table 8.** Preliminary statewide 2007 proficiency rates: Alaska Native students, in %

	Reading	Writing	Math
Grade 3	63.6%	58.0%	62.8%
Grade 6	60.7	49.1	57.4
Grade 8	66.7	56.8	46.2
Grade 10, HSGQE	42.5	70.3	52.9

As in the previous test, performance rates for Alaska Native students remains the lowest of all ethnic and racial groups (African American, Asian/Pacific Islander, Caucasian, Hispanic, Mixed Ethnicity) tested and in every content area tested.

In spite of this, much was made by the Governor and DEED officials of some improvements in student performance and the “significant progress” made in improving education in the state for Alaska Native students using the new Standards Based Assessments (McBeath, Reyes, and Ehrlander, 2008). However, as McBeath et al. point out, although there were increases of proficiency levels in 2005, results were inconsistent with those in other tests that students took—the TerraNova CAT test (for grades five and seven) and the National Association of Educational Progress (NAEP) exam—where results indicated significantly inconsistent improvement patterns. These researchers also emphasize that the leading state assessment expert has stated that state officials have altered the content of the tests and lowered cut scores needed to meet proficiency levels. McBeath et al. conclude that the “governor and commissioner appear to have politicized the state assessment system” (p. 275). We believe that doing so has served to undermine the intent of the original effort to effectively reform and improve public education in the state for all children.

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### Notes

1. The term “high-stakes testing” refers to standardized testing that carry significant consequences to students, teachers, and schools. The Benchmark and HSGQE are regarded as high-stakes exams. Schools failing to demonstrate achievement gains can be declared “deficient” or “in crisis,” and are subject to intervention by the state.
2. To Diane Ravitch, accountability means that “public officials were supposed to review the results of assessments and establish consequences for students, teachers, schools, or school systems” (2002, 1). In addition to her review of the accountability movement, see critical studies such as Center on Education Policy, 2002; Dorn, 1998; Kohn, 2000; Lee & Smith, 1999; Paris & Urdan, 2000; Semas, 2001; Tanner, 2000; Thernstrom, 2000; and Thompson, 2001.
3. First-class cities are the most powerful local decision-making units after boroughs in Alaska. In areas outside the organized boroughs, first-class cities are responsible for providing public education.
4. See also D. Grissmer, A. Flanagan, J. Kawata, and S. Williamson, 2002.
5. Results from spring 2001 were equally dismal: 56 percent of tenth grade students failed math, 53 percent writing, and 34 percent reading. The students most likely to fail math were of limited English proficiency (85 percent), had low-income parents (82 percent), and were Alaska Native, Black, or Hispanic (70–80 percent). See ([www.eed.state.ak.us](http://www.eed.state.ak.us)).
6. Such as adoption of new language arts and mathematics materials, greater emphasis on writing, aligning report cards to match standards, and adding reading and math support classes as electives.
7. For example, increased emphasis on reading and more discussion across grade levels (vertical teaming).
8. See Hill & Lake, 2002, 206.
9. Such as more interaction and involvement with teachers regarding instruction, greater emphasis on data analysis and using assessments to drive instruction, and use of grant funding to supplement/extend instructional time.

10. For example, practice tests with students after school, grants for after-school reading clubs, and individualized computer tutoring programs.
11. This would appear to be a common element in implementation of high-stakes testing. F. Hess notes that in Virginia, administrators demand that “teachers generate extensive paper trails documenting their lessons” and insist that teachers “scrupulously follow standardized curriculum guides” (2002, 97).
12. This is one of the more contentious issues in high-stakes testing nationwide. For several perspectives on the issue, see Gary Orfield and Mindy Kornhaber, *Raising Standards or Raising Barriers?* (2001). See also Jennings, 1998.
13. See, for example, Fox who, speaking generically, believes that the “full implementation of the content standards should have a positive impact on Indian education” (2001, 3).
14. See Coates (1994) for a discussion of the “internal struggle” in northern jurisdictions.

## References

- Alaska Department of Education & Early Development (2002) *Students show progress on state benchmark exams* (<http://www.eed.state.ak.us>), Juneau, Alaska.
- Alaska Department of Education & Early Development (2007) Assessment. Accessed August 6, 2007, at <http://www.eed.state.ak.us/reportcard/rc01.html>.
- Berman, M. (2001) Alaska, in *Public school finance programs for the United States and Canada: 1998-99*. Washington, DC: National Center for Education Statistics, U.S. Department of Education.
- Bunde, C. (2001) Personal communication, June, 2001, Anchorage.
- Center on Education Policy (2002) *State high school exit exams: A baseline report*. Washington, DC.
- Coates, K. (1994) The rediscovery of the North: Towards a conceptual framework for the study of northern/remote regions. *The Northern Review*, Number 12/13 (Summer 1994/Winter 1995), 15–43.
- Darnell, F. (1972) Systems of education for the Alaskan Native population. In F. Darnell, ed. *Education in the North*. Fairbanks, AK: University of Alaska, 293–324.
- Dorn, S. (1998) The political legacy of school accountability systems. *Education Policy Analysis Archives*, Vol. 6. no. 1, 1–34.
- Education Funding Task Force (2001) *A+: A strategy for year two funding*. Juneau, AK: Office of the Governor.
- Firestone, W., D. Mayrowetz, and J. Fairman (1998) Performance-based assessment and instructional change. *Educational Evaluation and Policy Analysis*, Vol. 20, no. 2, 95–113.

- Fox, S. (2000) *Standards-based reform and American Indian/Alaska Native education*. Albuquerque, NM: American Indian/Alaska Native Research Agenda Conference.
- Grissmer, D., A. Flanagan, J. Kawata, and S. Williamson (2002) *Improving student achievement: What state NAEP test scores tell us*. Santa Monica, CA: RAND.
- Hess, F. (2002) Reform, resistance. ... retreat? The predictable policies of accountability in Virginia. In Ravitch, ed., *Brookings Papers on Education Policy, 2002*. Washington, DC: Brookings Institution Press, 69–122.
- Hill, P. and R. Lake (2002) Standards and accountability in Washington State. In Ravitch, ed., *Brookings Papers on Education Policy, 2002*. Washington, DC: Brookings Institution Press, 199–234.
- Institute of Social and Economic Research (2001) *Trends in Alaska's people and economy*. Anchorage, University of Alaska Anchorage.
- Jennings, J. F. (1998) *Why national standards and tests? Politics and the quest for better schools*. Thousand Oaks, CA: Sage Publications.
- Kleinfeld, Judith (1992) *Alaska Native education: Issues in the nineties*. Institute of Social and Economic Research, University of Alaska Anchorage.
- Kohn, A. (2000) High stakes testing as educational ethnic cleansing. *Education Digest*, Vol. 66, no. 4, 13–19.
- Leal, Mark (December 3, 2002) Memo to State Board of Education on "2002/2003 Adequate Yearly Progress (AYP) and School Improvement Sites". Department of Education & Early Development, Juneau, Alaska.
- Lee, V. and J. Smith (1999) Social support and achievement for young adolescents in Chicago: The role of school academic press. *American Educational Research Journal*, Vol. 36, no. 4, 907–45.
- McBeath, J. and M. Reyes (July 2001) *Implementing school improvement strategies in Alaska*, Fairbanks, AK: University of Alaska Fairbanks, Report to the Alaska School Research Fund, the Alaska Department of Education and Early Development, and the UA President's Special Projects Fund.
- . (2002) *Alaska's high stakes testing regime: How educators view the implementation process*. Fairbanks, AK: University of Alaska Fairbanks, Report to the Alaska Schools Research Fund.
- McBeath, J., Reyes, M., and Ehrlander, M. (2008) *Education reform in the American states*. Information Age Publishing: Charlotte, NC.
- McDiarmid, G., E. Larson, and A. Hill. (2002) *Retaining quality teachers for Alaska*. Institute of Social and Economic Research, University of Alaska Anchorage.
- Morehouse, Thomas, Gerald A. McBeath, and Linda Leask (1984) *Alaska's urban and rural governments*. Lanham, MD: University Press of America.
- Orfield, Gary and Mindy L. Kornhaber, eds. (2001) *Raising standards or raising barriers? Inequality and high-stakes testing in public education*. New York: The Century Foundation Press

- Paris, S. and T. Urdan (2000) Policies and practices of high-stakes testing that influence teachers and schools. *Issues in Education*, Vol. 6, no. 1-2, 83–108.
- Ravitch, D. (2002) Introduction. In Ravitch, ed., *Brookings Papers on Education Policy*, 2002. Washington, DC: Brookings Institution Press, 1–12.
- Semas, J. (2001) High stakes testing: Debating the standards movement. *Curriculum Administrator*, Vol. 37, no. 8, 44–49.
- Tamer, R. (2000) Responding to Paris et al.: Situating the conversation in the trenches. *Issues in Education*, Vol. 6, no. 1-2, 139–45.
- Thernstrom, A. (2000) Testing and its enemies. *National Review*, Vol. 52, no. 17, 38–42.
- Thompson, S. (2001) The authentic standards movement and its evil twin. *Phi Delta Kappan*, Vol. 82, no. 5, 1–9.