



MANAGEMENT ANALYSIS & PLANNING, INC

WYOMING EDUCATION FINANCE

Proposed Revisions to the Cost Based Block Grant

Submitted to
Wyoming State Legislature

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January 31, 2002

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Introduction

On February 23, 2001 the Wyoming Supreme Court handed down its ruling in Campbell County v State of Wyoming. This is the fourth school finance decision since 1971. In this most recent decision the Court accepts the MAP Cost Based Block Grant education finance model as constitutional. It also, however, found certain provisions of the model unconstitutional and ruled that the Legislature must remedy these unconstitutional provisions on or before July 1, 2002. In April 2001 the Legislature contracted with Management Analysis & Planning Inc. (MAP) to revise the funding model to comply with the Court's ruling. This report summarizes MAP's efforts under that contract¹.

The Court found the basic methodology underlying the Cost Based Block Grant and the methodology for computing teacher salaries constitutional. It required, however, that the model be revised to reflect cost changes since 1996-97 when the original model was developed; and further required specific modifications to various adjustments that it found to be unconstitutional. These include:

- Administrative salaries
- Classified wages
- Vocational education
- At-risk students
- Regional cost
- Small schools
- Small districts
- Maintenance and operations

The balance of this report is comprised of five sections. The next section presents some perspective on changes in school finance since the Cost Based Block Grant was adopted in 1997-98. The following section presents national and regional data to display the Wyoming education system in a larger context. This section is followed by a discussion of how the Cost Based Block Grant works. We present a description of the proposed changes to each of the personnel and non-personnel elements of the model; and finally we discuss the proposed changes to the eight adjustments listed above. The information contained in this report is preliminary, and is subject to change over the next few weeks as we continue to refine our analyses.

For a detailed discussion of the policy implications of the most recent Supreme Court decision, see Guthrie (2001).

¹ Several interim reports have been submitted to the Legislature. Each of these is more detailed than that which is summarized in this report, and readers are encouraged to read those reports to gain a richer understanding of the issues discussed in this report.

Wyoming School Finance: An Historical Perspective

The original MAP model was developed in 1996-97², using 1995-96 expenditure data and 1996-97 salary data, and was first implemented for funding in 1998-99, at which time the model had been updated by legislation to incorporate 1996-97 expenditure data. The purpose of this section is to highlight some of the changes in Wyoming school finance since that time. In short there are three trends that seem to overshadow all others. Per pupil spending has increased at a rate significantly higher than most other states, enrollments have dramatically declined, and pupil teacher ratios have dropped to among the most favorable in the nation.

In 1996-97 Wyoming was spending \$5,971 per pupil, which was less than \$50 above the national average. In 2000-01 spending had increased to \$7,928 per pupil or about \$850 greater than the national average. The Legislative Service Office forecasts that revenue per pupil will grow to over \$8,200 per pupil in 2001-02. Spending at this level would rank Wyoming among ten or fifteen highest spending states.

Table 1 compares Wyoming spending with the nation and with adjacent districts. As these data make clear, Wyoming spends more than neighboring states, considerably more than some, and, with the exception of South Dakota, has increased spending since 1996-97 at a significantly faster rate. During this same period inflation in Wyoming has been approximately 13.3 percent. Thus expenditure per pupil has grown more than twice as fast as the rate of inflation.

Table 1: Comparison of regional and national per pupil spending 1996-97 to 2000-01

State or other area	1996-97	1997-98	1998-99	1999-00 (estimated)	2000-01 (estimated)	% Change
United States ¹	\$5,923	\$6,189	\$6,508	\$6,585	\$7,079	20%
Colorado	\$5,312	\$5,656	\$5,923	\$5,823	\$6,085	15%
Idaho	\$4,447	\$4,721	\$5,066	\$4,878	\$5,386	21%
Montana	\$5,481	\$5,724	\$5,974	\$6,209	\$6,390	17%
Nebraska	\$5,848	\$5,958	\$6,256	\$6,156	\$7,050	21%
South Dakota	\$4,375	\$4,669	\$5,259	\$5,417	\$6,115	40%
Utah	\$3,783	\$3,969	\$4,210	\$3,991	\$4,372	16%
Wyoming	\$5,971	\$6,218	\$6,842	\$7,356	\$7,928	33%

SOURCES: U.S. Department of Education, NCES, National Public Education Financial Survey

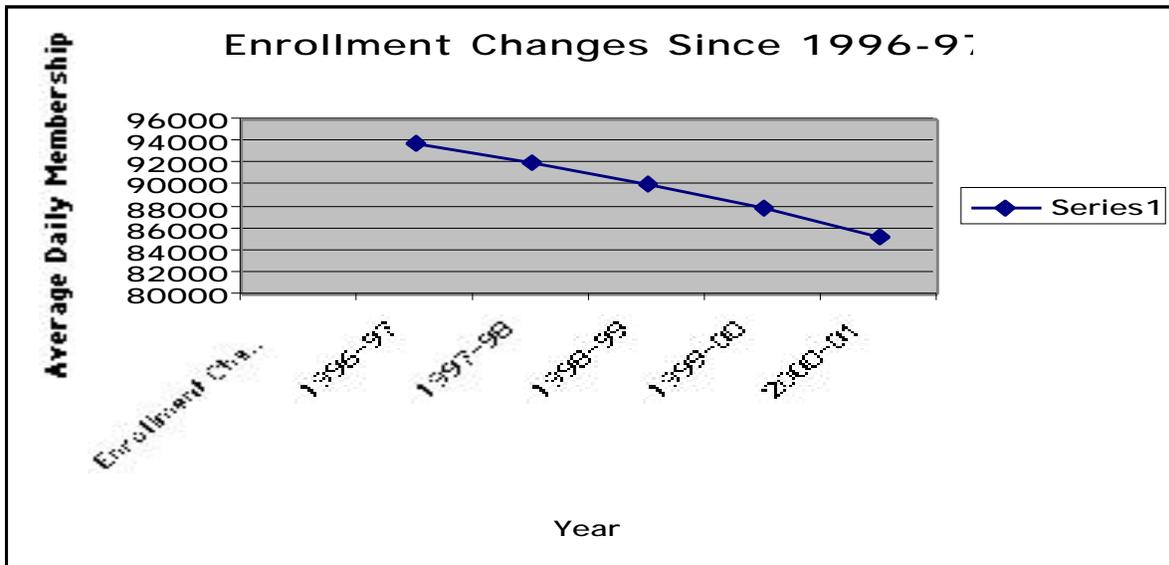
¹ Value contains imputation for missing expenditure data.

² See Guthrie, et al (1997)

In 1996-96 there were 93,792 students enrolled in Wyoming public elementary and secondary schools. In 2000-01 that number had dropped to 85,369 and decline of nearly 9 percent. Enrollment is declining fastest in the lower grades, indicating that the rate of decline may accelerate in the near term unless there are changes in the State's overall population.

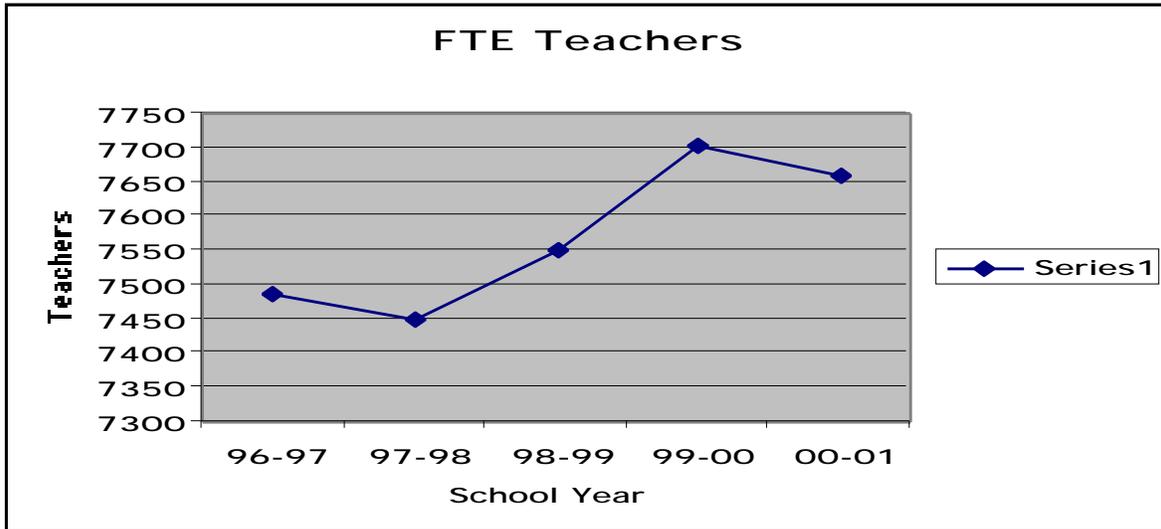
Figure 1 displays changes in enrollment since 1996-97

Figure 1



Under most circumstances, one would predict that the number of teachers employed would decrease somewhat proportionally to the reduction of students to be taught. That has not been the case in Wyoming. In 1996-97 there were 7486 full time equivalent (FTE) teachers in Wyoming public elementary and secondary schools. In 2000-01 there were 7660, a net increase of 174 teachers. Figure 2 displays the trend of the number of teachers employed each year since 1996-97.

Figure 2



The inevitable effect of holding constant or increasing the number of teachers in times of declining enrollment is a declining pupil teacher ratio. The pupil teacher ratio in Wyoming has been declining faster than in the nation and faster than surrounding states. Even the ratios in the districts with the fewest teachers per student are lower than the national average and the average of the surrounding states. Wyoming’s pupil teacher ratio is among the two or three lowest in the nation. Clearly, Wyoming school districts have chosen to place a higher priority on lowering class size than alternative expenditures, such as, for example, paying teachers higher salaries. Wolkoff and Podgursky (2001) estimate that if Wyoming school districts maintained a pupil teacher ratio similar to those of surrounding state, Wyoming teachers could be paid approximately 26% more than they are currently paid.

From the perspective of cost-effective allocation of resources, the low pupil teacher ratios in Wyoming are particularly incongruous with the nature of the student population. There is a growing body of evidence that smaller classes are beneficial to the academic achievement of poor and minority students, but has little measurable effect on students who are not poor or not minority. The vast majority of Wyoming students are neither poor nor minority. While maintaining very low pupil teacher ratios is a local policy choice and certainly permissible under the block grant concept, it may not be the most cost-effective expenditure of resources given the demographics of Wyoming students³.

Table 2 displays a comparison of pupil teacher ratios over time. Table 3 displays the pupil teacher ratio in each of the 48 districts.

³ See Seder, Picus and Smith (2002) for research citations and bibliography related to the differential effects of small class sizes.

Table 2: Student-Teacher Ratios in Wyoming and Surrounding States

School Year	Wyoming	Utah	Idaho	Montana	South		Colorado	Surrounding States		U.S.
1996-97	14.7	24.4	18.8	16.0	14.9	14.5	18.5	17.8	17.1	
1997-98	14.5	22.9	18.5	15.9	15.3	14.6	18.2	17.6	16.8	
1998-99	14.2	22.4	18.2	15.7	14.3	14.3	17.7	17.1	16.5	
1999-00	13.3	22.0	18.0	15.2	14.0	13.9	17.4	16.7	16.1	
% change since 96-97	-9.5%	-9.8%	-4.3%	-5.0%	-6.0%	-4.1%	-5.9%	-6.2%	-5.8%	

SOURCES: National Center for Education Statistics. Years 1996-97 to 1998-99 from Digest of Education Statistics 2000, Table 67. AY 1999-00 computed by author from 1999-00 Common Core of Data.

Table 3: 2000 Teacher/Pupil/School Counts

District Name	Instructional Staff Teachers FTE	Fall Enrollment	Pupil/Teacher Ratio
Albany #1	314.4	3,791	12.06:1
Big Horn #1	76.68	779	10.16:1
Big Horn #2	62.13	724	11.65:1
Big Horn #3	40.4	520	12.87:1
Big Horn #4	34.7	343	9.88:1
Campbell #1	524.3	7,488	14.28:1
Carbon #1	142.89	1,946	13.62:1
Carbon #2	91.16	791	8.68:1
Converse #1	129.76	1,660	12.79:1
Converse #2	69.34	783	11.29:1
Crook #1	100.75	1,176	11.67:1
Fremont #1	141.5	1,996	14.11:1
Fremont #2	26.87	291	10.83:1
Fremont #6	40.5	390	9.63:1
Fremont #14	78.77	647	8.21:1
Fremont #21	29	265	9.14:1
Fremont #24	31.5	341	10.83:1
Fremont #25	189.08	2,540	13.43:1
Fremont #38	28	269	9.61:1
Goshen #1	170.03	2,029	11.93:1
Hot Springs #1	67.58	763	11.29:1
Johnson #1	103.25	1,307	12.66:1
Laramie #1	873.77	13,264	15.18:1
Laramie #2	94.64	933	9.86:1
Lincoln #1	61.87	789	12.75:1
Lincoln #2	171.31	2,412	14.08:1
Natrona #1	799.31	12,038	15.06:1
Niobrara #1	39.44	428	10.85:1
Park #1	117.5	1,738	14.79:1
Park #6	164.25	2,399	14.61:1
Park #16	18.32	156	8.52:1
Platte #1	121.46	1,351	11.12:1
Platte #2	26.55	276	10.40:1
Sheridan #1	86.21	895	10.38:1
Sheridan #2	272.88	3,247	11.90:1
Sheridan #3	15.81	117	7.40:1

District Name	Instructional Staff Teachers FTE	Fall Enrollment	Pupil/Teacher Ratio
Sublette #1	46.6	639	13.71:1
Sublette #9	51.25	569	11.10:1
Sweetwater #1	341.64	4,665	13.65:1
Sweetwater #2	210.75	2,928	13.89:1
Teton #1	160.87	2,366	14.71:1
Uinta #1	234.83	3,219	13.71:1
Uinta #4	58	680	11.72:1
Uinta #6	54.7	820	14.99:1
Washakie #1	108.8	1,475	13.56:1
Washakie #2	16	124	7.75:1
Weston #1	77.5	907	11.70:1
Weston #7	26.56	257	9.68:1
Wyoming	6743.41	89,531	13.28:1

Wyoming Schools in Context: Regional and National Comparisons

The purpose for this section is to provide policy makers with a sense of context, how Wyoming compares to its neighbors and to the nation as a whole. Specifically, this section addresses student demographics and student achievement.

Wyoming like neighboring states has relatively few minority , poor or limited English speaking students (LES). As a consequence these states are quite different from the nation as a whole, where poor, minority and LES students are a large and growing segments of the population. Even among the regional states, Wyoming has fewer minority and LES students. As discussed extensively in Seder, Picus and Smith (2001), concentrations of poor, minority and LES students are highly correlated with lower levels of student achievement. Around the nation these measures are commonly considered good proxies for the number of students normally considered at-risk of academic failure⁴. Thus, all things being equal, one would predict Wyoming students to score high on measures of student achievement.

Table 4 compares Wyoming to neighboring states and the nation on various demographic characteristics.

⁴ For example NAEP defines as low poverty schools with 25% (approximately the Wyoming state average) or fewer students eligible for free or reduced price lunch and schools with 75% or more such students as high poverty. Nationally, 9 year –old students in high poverty schools scored 22 points lower on math and 38 points lower in reading than students in low poverty schools. See <http://www.ed.gov/pubs/schoolpoverty/index.html>

Table 4: Comparison of Wyoming Student Demographics With Surrounding States and the U.S. Average

State	%Free/Reduced Lunch 1999-2000	%LEP 1997-98	%Minority 2000-01
Wyoming	28.1	2.0 ⁺	12.1
Utah	27.6	8.0	13.2*
Idaho	32.3	5.4	14.0
Montana	30.9	5.5	13.8
South Dakota	28.2	5.8	13.3
Nebraska	29.8	2.2	16.0*
Colorado	27.7	7.4 ⁺	31.8
US Average	--	7.6	37.7*

SOURCES: Minority data comes from respective state education agencies. Limited English proficient data comes from National Clearinghouse for Bilingual Education. Free/Reduced Lunch data comes from U.S. Department of Education, National Center for Education Statistics, Common Core of Data, “Public Elementary/Secondary School Universe Survey,” 1999-2000 and “Local Education Agency Universe Survey,” 1999-2000.

¹ Estimated by U.S. Department of Education, National Center for Education Statistics

⁺ Data from 1996-97 is used because data from 1997-98 is missing.

* Data from 1999-2000 taken from U.S. Department of Education, National Center for Education Statistics, Common Core of Data, “Public Elementary/Secondary School Universe Survey, “ 1999-2000 and “Local Education Agency Universe Survey,” 1999-2000.

Table 5 and Table 6 suggest that Wyoming students perform comparably to the national average on the mathematics and reading portions of the National Assessment of Educational Progress (NAEP), commonly referred to as the “Nation’s Report Card⁵.”

Table 5: Grade 8 Mathematics NAEP Average Scale Score

State	2000	1996	1992	1990
Wyoming	277	275	275	272*
Utah	275	276	274	--
Idaho	278	--	275	272*
Montana	287	283*	--	281*
South Dakota	--	--	--	--
Nebraska	281	283	278	276*
Colorado	--	--	--	--
US Average	274	270*	266*	261*

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress, “The Nation’s Report Card: Mathematics 2000.”

*Average scale score is significantly different than Year 2000 average scale score

Note: For 2000, Idaho, Montana, and Nebraska average scale scores were significantly higher than the national average.

Table 6: Reading NAEP Average Scale Score for Grade 4 and 8

State	Gr. 4 1998	Gr. 4 1994	Gr. 4 1992	Gr. 8 1998
Wyoming	219	221	223	262
Utah	215	217	220	265
Idaho	--	--	--	--
Montana	226	222	--	270
South Dakota	--	--	--	--
Nebraska	--	--	--	--
Colorado	222	213	217	264
US Average	215	212	215	261

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress, “The Nation’s Report Card: Reading 1998.” Note: For 1998, Montana and Colorado grade 4 average scale scores were significantly higher than the national average. For 1998, Utah and Montana grade 8 average scale scores were significantly higher than the national average.

Tables 5 and 6 show that states such as Idaho, Montana, Utah, and Nebraska—states that have larger proportions of students who are limited English proficient and minority, and all states

⁵ NAEP is the best available measure of relative student performance among the states. Scores are representative of the full spectrum of students in each state, and thereby facilitate a fair comparison. Thus, one would normally expect states with higher percentage populations of poor, minority and LES students to score lower than states with smaller such populations.

that spend less per student than Wyoming—posted above-average scores on the subject-matter tests. Wyoming NAEP scores were statistically no different than the national average.

Table 7 displays the most recent NAEP science scores for Wyoming, neighboring states and the nation. As would be predicted, given their student populations, all the states in the region scored above the national average. Wyoming 8th grade scores, which remained unchanged since 1996, are statistically higher than the national average, but significantly lower than Montana.

Table 7: NAEP Science Scores, Grades 4 & 8

State or other area	Grade 4 - 2000	Grade 8 - 1996	Grade 8 - 2000
U. S.	148	148	149
Idaho	153	----	159
Colorado	----	155	----
Montana	160	162	165
Nebraska	150	157	157
South Dakota	----	----	----
Utah	155	156	155
Wyoming	158	158	158

Source: <http://nces.ed.gov/naep3/science/results/schsyschar-b.asp>

Montana is a particularly interesting comparison to Wyoming. That state has a more disadvantaged student population (for which it provides no additional state funding), spends approximately \$1,500 less per pupil, but its students achieve consistently higher than the national average and consistently higher than Wyoming students.

Understanding the Block Grant

As the Legislature re-costs the block grant and otherwise responds to the Supreme Court, it is useful to review how the Wyoming school finance system is designed to operate.

Wyoming school districts are funded through a Cost Based Block Grant. Cost based means that the amount a particular district receives depends on the specific characteristics of that district that raise or lower the actual costs that that district faces. Block grant means that most of the funding for operating local schools is received by school districts in the form of a lump sum of money which school districts can spend for virtually any legal purpose. The Cost Based Block Grant was conceived to serve two important purposes. First it was to respond to the Supreme Court's ruling that the funding for every student in Wyoming be identical except where there was a cost based rationale for providing more or less funding⁶. The second purpose was to preserve as much local control as possible by providing local decision makers the maximum flexibility to allocate resources to meet local needs and priorities.

The block grant was developed by MAP in 1997 using what is generally known as the professional judgment method. The first step in the professional judgment process was to define that which is to be produced, i.e. the basket, for whom, i.e. the student population, in what context, i.e. school levels and sizes. MAP then developed three school prototypes—a kindergarten through grade 5 elementary school of 288 students, a grades 6-8 middle school of 300 students and a 9-12 high school of 600 students. The student population in these prototypes reflected the state wide average characteristics of Wyoming students in terms of poverty, minority status and English proficiency.

Next, consulting educators, research and professional organizations, MAP compiled the nature and quantity⁷ of resources necessary to deliver the basket to the prototypical student population. These resources included teachers, administrators, materials and supplies, funding for teacher training, etc.

Once the nature of the resources was identified and the quantity of each was determined, contrary to what some allege, MAP did not merely average current expenditures⁸. Rather, MAP sought market prices for each of the resources. Where market prices were not available, as in the case of educator salaries, MAP sought surrogate prices that could be justified by economic theory. Once prices were determined, they were multiplied by the quantity of each resource and summed to derive an overall cost for each of the prototypes.

It was never intended that Wyoming school districts mimic the resource allocation pattern implied in the prototype. The prototypes merely served as an example of *one way* that resources could be combined to deliver the basket. Other ways may be more expensive or less expensive,

⁶ More recent rulings indicate that the Court does not require that in all cases funding be equal except where costs differ. For example, the Court now requires that school districts which emphasize vocational education programs should receive more funding than districts which emphasize academic programs.

⁷ In the case of education personnel, MAP suggested that a range was acceptable, rather than a specific quantity.

⁸ Had this been the case, the total cost of education to the state would have remained unchanged.

depending on the skills and abilities of the educators employed by the school districts. The prototypes produced a total amount necessary to deliver the basket; thus discussions of *elements* of the prototype being over funded or underfunded miss the point and would make sense only if a school district sought to allocate resources precisely as they were allocated in the prototypes.

If each school in Wyoming were identical to the prototypes, every school district would receive the prototypical amount of funding. But, schools vary from the prototypes in terms of student and teacher characteristics. Some students require additional resources to achieve up to their academic potential. Some teachers are paid more because they have taught longer. The cost of living in some school districts is greater than average, and some small schools and small districts face diseconomies of scale that increase cost per student. Thus MAP created a series of adjustments that compensated for the unique cost characteristics of each school. It is important to note, therefore, that at the time the Cost Based Block Grant was adopted, every similarly situated child enjoyed the same level of resources available for his or her educational program. That is, in terms of real dollars every school district received precisely (or as nearly precise as it was possible to determine) the same funding⁹.

⁹ In some cases, such as transportation and special education, the formula reimburses actual expenditures, which may differ from costs.

Personnel

Quantity

Recommendations

1. MAP recommends no changes in the number of employees currently contained in the prototypes.

Discussion

In its February 2001 decision the Wyoming Supreme Court ruled that, “[t]hat the evidence in this record indicates that the class sizes adopted in the 1999 legislation were not unreasonable.” In fact the prototypical staffing ratios are quite generous, especially considering the demographic characteristics of Wyoming students. There is now a growing body of evidence that smaller class sizes are an effective, but costly, intervention for significant concentrations of poor, minority and LES students, but smaller classes have little effect on the academic outcomes of students who are not poor, not minority, and not limited English speaking. As we have discussed elsewhere in this report, the vast majority of Wyoming students are not poor, minority or LES.

From time to time it has been asserted that standards and accreditation procedures adopted by the State Board of Education imply the need for additional staff. The evidence, however does not support such claims. An examination of the standards reveals that they do not require extraordinary effort on the part of reasonably competent faculty¹⁰, and are in fact based on Wyoming school district adopted standards, national professional standards and the standards of other states. They would be familiar to educators anywhere in the country, including in states with larger classes and more students with special needs. Also, in our site visits to small schools and small districts virtually all administrators responded affirmatively to a question of whether they were currently meeting state standards.

Other areas suggested for staff augmentation were primary grade foreign language instruction, support staff for technology and security and additional substitutes. The requirements for foreign language instruction in primary grades makes modest demands on school districts, and do not imply additional staffing. They may imply staff training and modest investments in curriculum materials. The Department of Education is aggressively addressing local educator needs associated with these requirements, funded primarily from federal sources¹¹.

The current prototype provides for technical support at the district and school levels. In our visits to school districts we saw no evidence of added security. MAP lacks the expertise to assess the potential risks associated with attending schools in Wyoming, but we suspect that there are few Wyoming communities where extensive security would be indicated. However, if

¹⁰ This does not imply, however, that school districts should not engage in regular systematic professional development to ensure that all staff possess the knowledge and skills to teach to the standards.

¹¹ See <http://www.k12.wy.us>, (October 9, 2001)

the Legislature is convinced that added security is appropriate, it would be a simple matter to add such a component to the prototype.

The current prototypes provide sufficient substitutes for class room teachers to be absent 5 percent of the time or approximately one day per month for illness for each teacher. Absence beyond this level would seem excessive and detrimental to student achievement. The prototype also includes approximately \$1,700 per year for each teacher for professional development. It was contemplated that this amount would cover substitute costs for absences related to professional development. Therefore, we are not recommending any staff augmentation in any of the above discussed purposes.

Teacher Salaries

Recommendations

1. Compute prototype salaries using the procedure accepted by the Wyoming Supreme Court in its February 2001 decision.

Discussion

The Court has accepted the State's approach for funding teachers based on establishing a competitive starting salary, and adjusting for teacher experience and education, contingent on such funding being adequate to meet the state's educational goals. Our analysis above establishes that the salary levels set for the 2001-02 academic year are adequate to meet the Court's mandate. However, to provide this level of funding requires that the state adjust the teacher funding formula that was established in 1997.

The salary component of teacher compensation consists of 3 parts: first, a competitive starting salary, second, an experience premium, and third, a payment for educational achievement.¹² To establish the starting salary component we examined what Wyoming school districts will pay beginning teachers with a BA degree in 2001.¹³ Based on the latest salary schedules we find the weighted average starting salary to be \$25,349. This exceeds the starting salaries in Cheyenne (\$24,450) and Laramie (\$24,000), the Wyoming labor markets viewed as the most competitive for college graduates. The experience premium is paid to each school district as a function of the existing profile of teachers on staff. Based on our analysis of the 2001-2002 salary schedules we have determined that teacher pay should be incremented \$773 for each year of experience.¹⁴ We calculate the average number of years of experience to be just over 12.4, resulting in funding of \$9,615 for a teacher with the average experience profile. Finally, we calculate the payment for educational achievement to be \$1,907.

The teacher funding formula sets a budgeted amount for each fundable FTE consisting of beginning teacher pay plus average educational premium. The recommended funding levels are displayed in Table 8. The experience component is calculated for all FTE on staff, not just those FTEs determined by the prototype. In addition, the experience premium is capped at a maximum payment of 20 experience steps. A review of the literature on the relationship between experience and student achievement reveals that there is little empirical evidence linking teacher experience to higher levels of achievement. Some evidence exists that at the beginning of a teacher's career experience can have a positive impact on classroom performance but the experience effect is fully realized after but a few years teaching. In an analysis of student

¹² We note that this formulation does not limit the flexibility that districts have in awarding pay. It merely sets a funding level. Districts retain the flexibility to award merit pay or specialization pay if they see fit.

¹³ There is no presumption that teacher salary funding should be recalibrated based on current salary schedule data. In fact, current salary schedules are reflective of what is possible under existing funding arrangements.

¹⁴ In the February 23, 2001 ruling the Supreme Court mistakenly opined that the experience adjustment was "revenue neutral to the state," (para 58). In fact, if statewide teacher experience increases, state expenditures on teacher experience increase. If statewide teacher experience declines, state funding would decrease. The same is true for each school district.

achievement in Wyoming we find no statistically significant evidence that the number of years of teacher experience influences student outcomes on a series of standardized tests. Nevertheless, most school district schedules provide salary premiums for experience steps. The funding formula provides up to 20 steps increments that, like other components of the block grant, can be used by school districts in any way they choose to deliver the “basket of educational services specified by the Legislature.

We also recommend that the component of the funding model that previously allocated funds for substitute teachers at the rate of \$60 per day, multiplied by a 175-day school year, be increased to \$68 per day, based on changes in the WCLI. This represents over a 13% increase in funds in this category as part of the block grant, and is somewhat higher than the what district actually pay in 2001-02.

Table 8: Components of Teacher Funding

Salary Components	Funding \$'s per FTE
Beginning Teacher Salary	\$25,349
Experience Premium	\$773 X years of experience up to 20
Education Premium	\$1,907
Total (for average FTE)**	\$36,871

**Average experience is 12.438 years.

For a more detailed discussion of teacher salaries, see Wolkoff and Podgursky (2002).

Benefits

Recommendations

1. Continue funding fringe benefits in the prototypes at 19 percent.
2. Increase the health insurance costs in the prototypes to \$4,890 per year for each employee.

Discussion

In addition to salaries, the Wyoming finance formula provides school districts with funding for employee fringe benefits. The Supreme Court's February 23, 2001 decision did not require any change in the methodology for constructing fringe benefits. The current funding model provides a 19% fringe benefit rate intended by MAP to cover mandatory, employer funded, fringe benefits consisting of social security, Worker's Compensation, unemployment insurance, plus employer contributions to the state retirement plan.

Table 9 displays fringe benefit costs as a percent of salaries by category. Employer contributions for FICA are set at 7.65% of the FICA wage base (\$84,900 in 2002). Because some employees earn more than the wage base, the 7.65% rate slightly overstates true school district costs in this category. Worker's Compensation payments are made only on personnel in certain occupations, exempting for the most part teachers and educational administrators. Worker's Compensation premiums paid by school districts average just over \$2.7 million annually during the three-year period from 1999-2001. This translates into an effective fringe benefit rate of .66% based on our estimate of the annual school district total wage bill.¹⁵ School districts in Wyoming reimburse the State Unemployment Insurance system for unemployment payments made to school district employees. From 1998-2000, the last three years for which we have complete data, annual school district payments average \$264,000, an effective fringe benefit cost of .06%, of the \$407,000,000 wage base. In total, mandatory fringe benefit costs represent 14.05% of payroll, leaving 4.95% unallocated from the 19% funding rate.

Thus, the 19% rate is more than ample to cover mandatory, employer paid fringes, and is able to cover a significant portion of the employee share of retirement plan contributions. In practice Wyoming school districts have chosen to pay the employee share of the retirement benefit (5.57%) as well, although they are not required to do so. So far as we were able to determine, this is not the practice in most of the surrounding states. We asked education department officials in the six surrounding states whether education employees contribute to their state plan. In five of the six states surrounding states, school employees are required to contribute to their retirement plan. Only in Utah does the district make the entire contribution.

The funding model also provides funding to cover employee health insurance. We use district data collected by the Wyoming Education Association on fiscal year 2001-02 health

¹⁵ Based on school year 2000-2001 General Fund expenditure data, \$407 million was spent by school districts on salaries.

insurance costs for 48 Wyoming school districts. We computed FTE-teacher weighted means for the school districts costs of the health insurance policies offered. Approximately 35% of teachers elect single policy coverage, the others electing either various forms of family coverage. Most districts pay virtually all of the cost of single coverage but only varying proportions of family coverage. On average, school district health insurance costs averaged \$4,890 per FTE for 2001-02.

Table 9: Mandatory Fringe Benefit Costs as a Percent of Salaries

Category	Tax as Percent of Salary
FICA	7.65%
Worker's Comp	.66%
Unemployment Insurance	.06%
Retirement	5.68%
Total	14.05%

Source: Author's calculations from data provided by Wyoming Department of Education, and Wyoming Department of Employment.

Table 10 incorporates the 19% fringe benefit base along with the estimated annual cost of health insurance, to show funding per FTE teachers under the original MAP model, as compared to our funding recommendation for 2001-2002.

Table 10: Personnel Costs Per FTE Teachers

	1996-97	2001-02
Average Teacher Salary	\$ 31,758	\$ 36,871
19% Fringe Benefits	\$ 6,034	\$ 7,005
Health Insurance	\$ 3,641	\$ 4,890
Total Compensation	\$ 41,433	\$ 48,766

Sources: 1996-97 values from MAP Associates (1997, Figure 11, p. 37). 2001-02 values computed by authors.

We propose fringe benefits be calculated at the same 19% fixed percentage of salaries and annual health insurance costs be funded the same as those of teachers, for classified staff and supervisory personnel.

For a more detailed discussion of fringe benefits, see Wolkoff and Podgursky (2002).

Nonpersonnel Costs

Supplies and Instructional Materials

Supplies and Instructional Equipment are appropriately adjusted to reflect changes in the Wyoming Cost of Living Index (WCLI).

Equipment

Equipment is appropriately adjusted to reflect changes in the WCLI. Equipment for vocational education is given separate treatment as described in “An Analysis of Annual Statewide Expenditures of Vocational Education in Wyoming,” (Klein, Bugarin and Hoachlander , 2001).

Food Service

In the prototype, food service was considered self-supporting, except for small districts which were allowed to receive partial reimbursements for their costs. That provision has been removed and it is now recommended that no food services are reimbursable¹⁶. (See Small School Report-Picus, Hayward, Ehlers, 2001)

Special Education

Costs for Special Education are currently reimbursable by the state. That policy is continued.

Gifted

Provisions for Gifted have been adjusted for inflation by the WCLI.

Student Activities

The allocation for student activities has been adjusted upwards by the WCLI. Additionally in the small school formula, cost curves have been developed which more nearly reflect additional costs incurred per pupil by small schools. (See Picus, Hayward, Ehlers, 2001)

Professional Development

The provision for professional development has been appropriately augmented to reflect changes in the WCLI.

¹⁶ Some school districts argue that they are not able to break even on food services provided in their district. MAP is unable to evaluate that claim without a study of the costs allocated to food services, whether those costs are allocated elsewhere in the block grant, whether the amount charged for meals covers the cost of producing the meals, and whether the costs associated with specific programs are reasonable. We, therefore, recommend that the Legislature commission a study to address these and related questions.

Assessment

The allocation for assessment has been appropriately augmented to reflect changes in the WCLI.

Transportation

Transportation costs continue, as in the current model, to be reimbursed by the state.

Adjustments

Administrator Salaries

Recommendations

1. Adjust funding to account for salaries paid to administrators with differing levels experience, advanced degrees and responsibility.

Discussion

The Court required that administrator salaries be adjusted for experience, education and responsibility. The best available measure of experience is the number of years an administrator has held a particular position. The best available measure of education is possession of a masters or doctoral degree; and the best available measure of level of responsibility is the size of the enterprise managed measured by the number of students in the district for district administrators and number of students in the school for school level administrators.

Based on a series of regressions for district level administrators we estimated the value of each year of experience greater than the state mean was \$159.5, an MA was worth \$4,353 and a doctorate would earn an additional \$9,167. Each additional ADM in the district greater than the state average would be valued at \$3.16.

For school level administrators a year of experience greater than the state mean would be valued at \$498, an MA would generate \$1,872 and a doctorate would be valued at \$2,767 plus the MA premium. Each additional ADM above the state average would generate additional compensation at a rate of \$8.62.

All of these adjustments are made relative to the state mean. Thus those districts and schools below the mean would receive a negative adjustment as indicated.

For a more detailed discussion of administrator salaries see Wolkoff and Podgursky (2002)

Classified Salaries

Recommendations

1. Adjust each district's block grant to reflect classified employees years of experience.
2. Compensate for changes in experience at a rate of 1.2 percent per year.

Discussion

The Supreme Court reversed the lower court and ruled that administrative and classified salaries "...should be adjusted in a fashion similar to teacher salaries to account for differences in experience, responsibility, and seniority."

Absent a state prescription of the number and class of non-certified employees a district can hire, we recommend a procedure based on average salaries that can be adjusted over time to reflect changes in average experience levels. We propose to use job classification as a proxy for level of responsibility. The proposed adjustment would compensate for real changes in costs resulting from changes in experience. This adjustment will require that districts report years of experience for each year beginning with 2000-01 as the base year.

Based on an analysis of Wyoming wage data, the annual rate of return for experience is 1.2%. However consistent with the block grant, as with certified employees, school districts would be free to provide larger annual raises over shorter periods, or smaller annual raises over longer periods, or no raise at all.

For a more detailed discussion of the classified salary adjustment see Wolkoff and Podgursky (2002).

Vocational Education

Recommendations

1. Develop program standards for state approved vocational programs.
2. Fund state approved vocational classes with a weighted ADM formula.
3. Conduct a comprehensive study of vocational education costs to determine how vocational ADM should be weighted and which courses qualify for vocational funding.
4. Introduce a transitional categorical funding program for purchase of qualifying vocational equipment until a cost based vocational student weight is developed.

Discussion

The Wyoming Supreme Court held that, "... in order to provide vocational and technical training, the actual costs of providing vocational teachers and equipment must be examined, included as a line item in the MAP model, and funded accordingly."

In an effort to comply with the Court's ruling MPR, a subcontractor to MAP, conducted extensive study of district and state expenditure data and interviews of a representative sample of school district administrators. From these analyses it is apparent that neither districts nor the state collect data sufficiently detailed and reliable to determine what districts actually spend on vocational education. Thus it is not possible at this time to quantify vocational expenditures, and as a consequence not possible to separate vocational expenditures from all other educational program expenditures.

Currently the state provides insufficient guidance to determine which of the classes districts designate as vocational would meet the state's expectation for quality and cost-effectiveness. Not all vocational programs require very small class sizes or costly equipment, and clearly it is not necessary for school districts to offer high cost programs to meet the state's current content and performance standards for Career/Vocational education. Therefore, before costs can be measured, it is essential that the Legislature specify program standards in sufficient detail to allow discrimination between elective vocational courses and legitimate vocational courses. They should further adopt policy that establishes priorities for the nature of qualifying programs and the conditions under which high cost programs would qualify for additional state funding.

The Court's decision seems to imply that school districts should be reimbursed for vocational education related expenditures. To directly reimburse vocational expenditures would provide a financial incentive to school districts to classify more courses as vocational and offer higher cost programs regardless of real student need or student preferences. As an alternative, MAP recommends that the ADM generated by students participating in state approved vocational programs be weighted to reflect any higher costs associated with providing vocational

classes. This would ensure that the school district would receive extra funding only for those vocational courses for which there was sufficient student demand. However, it is necessary to accurately measure the marginal, i.e. the amount greater than non-vocational courses, costs of vocational programs before a weight can be determined. We therefore recommend that a comprehensive cost study be undertaken.

Finally, the primary concern voiced in the site visits related to perceived inadequate funding for vocational equipment and supplies. Therefore we recommend that, until a satisfactory weighting formula is developed, the Legislature provide a categorical funding program to subsidize local purchases of vocational equipment. We further recommend that the Legislature carefully specify the conditions under which such funding would be made available.

For a more detailed discussion of vocational education funding, see Klein, Bugarin and Hoachlander (2001).

At-risk students

Recommendations

1. The level of at-risk funding should be based on the portion of the student population represented by an unduplicated count of students eligible for free or reduced-price lunch or who are identified as limited English speaking.
2. As in the current model, at-risk funding would be generated by student characteristics in a school, but would be provided to the school district as part of the block grant.
3. Because the funding prototypes assume an average number of at-risk students, the proposed adjustment provides additional resources when the proportion of free and reduced lunch eligible and limited English speaking students exceeds the state average.
4. Additional funding would be provided as the concentrations of free and reduced-price lunch eligible and limited English speaking students increases in a school.
5. At the highest levels of concentration, each student would generate an amount equal to 25 percent of the consolidated prototype funding level. At lower levels of concentration the amount of funding per student would be something less than 25 percent, depending on the level of concentration.

Discussion

The Wyoming Supreme Court found the current formula for funding programs for at-risk students unconstitutional. The Court ruled that the State must either fully reimburse (with or without state oversight) school district expenditures for at-risk and limited English speaking (LES) students, or establish an accurate formula with which to distribute adequate funds to educate at-risk students.

MAP recommends against a reimbursement system. Such a system is fraught with perverse incentives—more likely to cause districts to maximize spending than to provide cost-effective educational programs for at-risk students. Based on over 40 years experience with federal and state categorical programs for at-risk students, it is safe to predict that a reimbursement system, with or without state oversight, would cause a proliferation of bureaucratic rules and regulations which would encourage districts to respond in ways demonstrably deleterious to at-risk students. Such practices would include labeling and segregating at-risk students, fragmenting their educational programs, and denying extra assistance to students who do not specifically meet strict identification criteria.

MAP proposes an alternative approach that is consistent with the Court's desire to adequately serve children at risk of educational failure, but with less likelihood of the unintended consequences attendant a reimbursement system.

There are no generally accepted operational definitions of at-risk (or special needs or EDY, for that matter); nor is there any objective measure of “at-riskness.” Although it is well documented that background factors, such as poverty, minority status and limited English proficiency are highly correlated¹⁷ with at-risk behaviors, it is also well documented that ineffective instructional programs place some students at risk. Because there is no accepted definition of at-risk; and there is no objective measure of “at-riskness,” it is necessary to employ a proxy or indirect measures to ensure that funding is targeted to the schools likely to experience the greatest needs for additional resources. Also, research literature suggests that a student’s level of “at riskness” increases as the portion of poor, minority or LES students increases in the school where he or she attends.

It has been suggested that funding should be conditioned upon some measure of failure, such as students scoring below a specified level on a test, or the number of students dropping out of school. Such direct measures of symptoms create another set of unintended consequences. Of primary concern, it would not differentiate between adverse student outcomes that result from student background factors and adverse outcomes resulting from low quality educational programs. Under such a funding procedure, all things being equal, schools with the least effective programs would receive the greatest amount of funding and schools with the most effective programs would receive the least. At the very least, basing funding on adverse student outcomes offers little incentive for schools to innovate to improve student outcomes.

The proposed system relies on an estimated or predicted incidence of at-risk students at each school. We recommend that the portion of a school’s enrollment that qualifies for federally subsidized free or reduced-price lunches¹⁸ or is identified as LES would serve as a *proxy* for the portion of the student population who is at risk. This is an admittedly imperfect measure—but it is the best possible—and one used by the federal government and most states. Not all poor or minority students are at risk, and not all LES students require the same level of extra attention. Conversely, not all at risk students are poor, minority, or LES. However, the incidence of students with needs for greater assistance will almost certainly increase as the incidence of the proxy measures increases.

The prototypes were developed based on an assumption of average student demographics. Thus, the prototypes contemplated an average population of at-risk students and provided sufficient funding to meet their needs.

Under the proposed formula, schools with populations of students eligible for free or reduced-price lunch or LES above the state average¹⁹ would generate additional funding. Because needs for additional resources increases at an accelerating rate as concentrations

¹⁷ In fact this relationship is found in Wyoming schools where eligibility for free or reduced price lunch is negatively and significantly correlated with test scores.

¹⁸ Eligibility for federally subsidized meals is based on family income and is therefore the best available measure of poverty.

¹⁹ The percentage of the state’s student population with these characteristics has changed little since 1996-97. Thus we propose to use current year data, which is probably more accurate than earlier data, to set the base. In the future, the base will remain unchanged. Thus if statewide levels of such children increase, it will not have the effect of raising the base level from which extra funding eligibility is calculated.

increase, the amount of funding per pupil will increase as concentrations increase. Thus, schools with concentrations of students eligible for free or reduced-price lunches or LES students near the average will receive less per pupil than those with greater concentrations. At the highest levels of concentration students will generate a marginal rate of 25 percent²⁰ above the consolidated prototype per pupil funding. At an estimated \$7,000 per pupil prototypical funding rate, the highest rate of additional funding would be an additional \$1,750.

In an effort to determine if funding levels provided by the proposed adjustment would be sufficient to meet the needs of at-risk students of various concentrations, MAP reviewed the research literature related to which kinds of interventions seemed to be most effective for at-risk students and then tested to see if the funding available to Wyoming schools was sufficient to implement such interventions. It should be noted that these interventions are not additive, but more of a menu. It is unlikely that any school or district would profitably implement all of them. Secondly, there is a growing body of research that suggests that interventions such as lower class size seems to have a demonstrable effect on poor and minority students, but little if any measurable effect on non-poor and non-minority students (which represent a significant majority of Wyoming students)²¹.

In our examination of these interventions, it became clear that Wyoming schools would have available sufficient funding to implement any reasonably indicated intervention. These estimates did not take into account the likelihood that the schools with the highest concentrations would also receive substantial Federal Title I funding.

For a more detailed description of estimating the cost of services to at-risk students, see Seder, Picus and Smith (2002).

²⁰ Based on a typical funding rate for at-risk students in other states. It is important to note that most states provide this level of funding to compensate for a level of resources significantly lower than enjoyed by Wyoming schools.

²¹ Grissmer et. al. (2000: xx) state specifically:
... that additional resources provided to public schools mainly affect minority and less-advantaged students and that these effects can be large and significant if properly allocated and targeted. However, additional resources deployed in historical ways have had much less, if any, effect on more-advantaged students.

Regional Cost Adjustment

Recommendations

1. Use the unmodified WCLI to adjust statewide average salaries to compensate for regional cost differences.
2. Compute adjustment on statewide average costs as base.

Discussion

In 1997 MAP recommended that a modified Wyoming Cost of Living Index (WCLI) be used to adjust salaries paid by each district to compensate for differences in cost-of-living. In an effort to minimize the disequalizing effects of differences in amenities among the districts, MAP recommended that the rental portion of the housing component in the WCLI be removed. MAP further recommended that since employers paid health care costs, this element be removed from the index as well. The Court held that, “statewide average salaries must be adjusted for the full cost-of-living differences using the entire WCLI or another reasonable formula which includes a full housing component, including the rental of shelter costs, and a medical component to cover costs not included in the benefits portion of the salary component.”

The effect of the Court’s ruling is to require use of the unmodified WCLI which would increase the funding to Teton County by about \$1.8 million and Laramie #1 by about \$70,000, and reduce funding to the remaining 46 school districts by about \$22 million. This impact can be mitigated somewhat by changing the base to the state average (see below). Small remote districts are particularly disadvantaged by the Court prescribed adjustment. Under the existing adjustment these districts have been able to offer the availability of low cost housing as a competitive inducement to compensate for the relative lack of amenities in their region. The new adjustment penalizes these districts for their lower cost housing by in effect reducing the salaries they are able to offer.

A preferred alternative to the WCLI would have been an index based on actual wages; however, because of the low employment densities in Wyoming, insufficient data exists to construct a wage index. Thus given the specificity of the Court’s ruling, the only remaining alternative is to use the unmodified WCLI to compensate for regional cost differences.

In the current formula, the index is based on an average of costs in Laramie and Albany Counties. MAP proposes now that the base be changed to the statewide average cost. Because at the present time the statewide average is lower than the average of the two counties, the effect of changing the base will be that all school districts will receive more funding, and the overall decrease in funding will be about half of the predicted \$22 million.

For a more detailed discussion of the regional cost adjustment, see Wolkoff (2001).

Small Schools

Recommendations

1. Adopt a new cost based adjustment for all schools small smaller than the prototype schools.
2. Discontinue reimbursements for student activities, utilities and food services; but provide cost based funding adjustments for student activities and utilities.
3. Adopt the definition of school proposed below.

Discussion

The Wyoming Supreme Court found the existing small school adjustment unconstitutional, declaring that the adjustment was not sufficiently cost-based, and that the funding cut off points appeared to be arbitrary. The proposed adjustment takes into account the Court's concerns, and compensates for real cost differences among schools of various sizes. All schools smaller than the prototypes receive additional funding to compensate for costs associated with size.

The proposed formula for schools smaller than the regular prototypes is based on a series of regressions that estimate the number of teachers required for various levels of enrollment. Teacher salaries are based on the new prototype amount. Non-teacher costs are based on 1996-97 costs inflated by the WCLI.

Under the existing adjustment, all small schools are reimbursed 100% for utilities and student activities, and, under certain conditions, for a portion of their food services costs. The Court found this practice suspect and ruled that if any class of schools were reimbursed for certain expenditures, all school should be similarly reimbursed. For that reason, we have created a cost based function that covers the costs of student activities and utilities; and therefore recommend that these costs no longer be reimbursed for any school.

Our recommendation for treating the costs of food services is slightly different. It is reasonable to expect the food service program to be operated so that fees collected for meals and federal subsidies at least cover the cost of meals served. If local officials choose to charge less than the cost of meals served, it is appropriate for them subsidize those expenditures from other local resources.

Finally, as we have pointed out elsewhere, the formula for small schools is justified by the existence of diseconomies of scale incurred by schools with relatively few students. Some districts in Wyoming designate the collection of grades at a single location as multiple schools, thus exaggerating the effects of diseconomies of scale. While permissible under current law, we believe it to be an unintended consequence and inconsistent with cost based funding principles. Under any funding formula that compensates for diseconomies related to enrollment, co-located schools should, for funding purposes, be considered a single entity consistent with the total

enrollment at that site. In other words, the funding received by co-located schools exceeds the cost of delivering the “basket” at those sites. Moreover, funding based on artificially designated schools is disequalizing. Similarly situated students are not treated equally. Therefore, we recommend that for the purposes of determining funding for each school district the State adopt the following definition:

A school is one or more buildings that contain one or more grades and at least three of the following facilities that are not shared with another school: (1) library, (2) cafeteria, (3) administrative office, (4) heating and ventilation system. School districts may not reduce the size or scope of any of these facilities for the purpose of qualifying for a small school adjustment. Elementary and middle school programs with 30 or fewer ADM and high school programs with 48 or fewer ADM may, with the permission of the State Board of Education, qualify as a school even when they contain fewer than three of the above criteria.

For further discussion of co-located schools, see Smith and Hayward (2002). For a more detailed discussion of the small schools adjustment, see Picus, Hayward and Ehlers (2002).

Small Districts

Recommendations

1. Replace the existing small district adjustment with a new cost-based formula.

Discussion

The Supreme Court found the existing small district adjustment unconstitutional and held that, “If the legislature is convinced small school districts are not properly funded, any adjustment must be based upon documented shortfalls under the MAP model that are not equally suffered by larger districts.”

Most Wyoming school districts are small, with 27 districts enrolling fewer than 1000 students, 12 enrolling fewer than 500 and the smallest enrolling only 117 students in grades kindergarten through grade 12. Taken together, the 27 smallest districts enroll just over 16 percent of all students.

It is widely acknowledged that very small school districts cost more per pupil to operate. In most cases diseconomies are created by higher than average personnel costs per pupil, i.e. a minimum number of administrators necessary to operate the district regardless of the number of students served. In an effort to better understand the costs faced by smaller school districts MAP conducted site visits at small school districts, reviewed the research literature related to small school districts, reviewed how other states treat small school districts, and analyzed expenditure and other data from the Department of Education, local districts and the Wyoming School Boards Association.

Based on our analyses of the various data sources, MAP constructed a series of prototypes to estimate the costs districts of various sizes would incur to deliver the “basket”. These analyses revealed that for the smallest size prototype (250 or fewer students), the minimum staffing of a district office would include one each superintendent, business manager, curriculum and instruction coordinator, technology coordinator and two clerical positions. An additional central office administrator is added at 550 students and at 1000 students two additional central office staff and one additional clerical position are added.

Since per pupil costs declines as enrollment grows, at some point the small district adjustment will be equal to or less than the regular prototype funding. Using the most recent data that point is reached at an enrollment of 1,193 students.

The cost of the prototypes and the point at which the adjustment equals or is less than the regular prototypes will change when 2001-02 salary data become available.

The existing small school district adjustment provides districts with fewer than 1350 students an additional \$50,000 for each attendance center beyond the one in which the central office is located. We do not recommend that this adjustment be continued. The proposed approach eliminates the need for such an adjustment. The high administrative staffing ratios

provide even the smallest districts with sufficient resources to manage multiple attendance centers.

Finally, the significant increase in funding for small school districts contained in this recommendation further highlights the need to ensure that districts maintaining co-located schools should not also receive a small school adjustment—unless the combined enrollments of the co-located²² schools are smaller than the prototypes. As we have discussed in some detail in other reports, co-located schools artificially appear to suffer diseconomies which in fact they do not incur.

For a more detailed discussion of the proposed small district adjustment, see Ehlers, Hayward and Picus (2002). See Smith and Hayward (2001) for further discussion of co-located schools.

²² In many cases these “co-located” schools were created by designating certain grades in a larger school as a separate school. For the most part this practice grew out of a Wyoming tradition of designating elementary grades as an elementary school, middle grades as a middle school and secondary grades as a high school even though all grades were located on a single campus, even in some cases under a single roof, and under the aegis of a single administration. Such a practice had little practical impact until the Legislature attempted to compensate small schools for legitimate costs caused by small enrollment.

Maintenance and Operations

Recommendations

1. For schools operating between 100 percent and 125²³ percent of the state square footage construction standards, fund maintenance and operations at \$2.44 per square foot.
2. For schools operating between 125 percent and 200 percent of the state square footage construction standards, fund all square footage above the standards at a diminishing amount per square foot.
3. Provide no funding for space greater than 200 percent of the state square footage construction standards.
4. For schools operating at less than 100 percent of the state square footage construction standards (i.e. over utilized space), fund at an increasing amount per square foot.
5. Fund the full formula allowance (\$2.44 per square foot) for non-instructional facilities that are equal to 10 percent of actual education space or 10 percent of the state standard of instructional space, which ever is greater. Fund at increasing rates for more intensive space utilization and decreasing rates for less intensive utilization.

Discussion

In February 2001 the Wyoming Supreme Court held that the cost of routine maintenance and operation, including utility cost, must be determined by either:

- 1) A formula that uses enrollment measured by ADM, building square footage, and number of buildings in the district; or
- 2) Full reimbursement of actual costs, subject to state oversight.

MAP strongly recommends the first option. The first option provides an opportunity and an incentive for local administrators to manage resources effectively; whereas the second option, as discussed elsewhere in this report, provides no incentives for districts to operate cost-effectively, implies extensive record keeping and reporting, intrusive state oversight, and further erosion of local control.

In the original MAP model all maintenance and operations (M&O) costs were computed as an amount per ADM. At that time we recommended that a more appropriate funding formula

²³ MGT, in their 1999 report recommended that full funding be provided only for schools operating between 100% and 115% of standard. In recognition of the fact that school districts face continuing declining enrollment and therefore decreased space utilization, MAP recommended that the upper limit be increased to 125%. However, other adjustments, such as the three year rolling average of ADM also compensates for the effects of declining enrollment.

would take into account the size of facilities as well as the number of students using them. MGT America (1999), analyzed the maintenance and operations costs of a representative sample of Wyoming school districts and determined that 5 percent of the amount MAP designated as M&O was actually major maintenance costs, 30 percent was still appropriately based on ADM, and the remaining 70 percent should be funded on the basis of square feet in the facility. They further determined that \$2.30 per square foot was the cost for the routine maintenance of school facilities. Using the WCLI, that figure should be inflated to \$2.44 in current dollars²⁴.

Some school districts experience significant excess capacity, and as a consequence do not as intensively utilize their facilities. In recognition of this less intensive utilization we recommend that schools with capacity exceeding the state square foot per student standard by 25 percent be compensated at a rate less than \$2.44, that amount declining to zero when capacity equals 200 percent of the state standards. Also, recognizing that facilities operating with more students than the state standards are more costly to maintain, we recommend that they be compensated at a rate greater than \$2.44, that amount increasing depending upon the percent of utilization exceeding state standards.

Finally, MAP recognizes the volatility of the utilities market. Historically utility rates rise and fall with some frequency. Capable administrators plan for such volatility, primarily by maintaining a cash reserve. Under current law Wyoming school districts are able to maintain reserves as high as 15 percent, which is clearly sufficient to buffer fluctuations of utilities costs that account for only 1 or 2 percent of total expenditures. MAP does recommend that the State set aside a small contingency fund to be used in cases of extreme hardship—when the change is great and unexpected and cannot be covered by existing reserves.

For a more detailed discussion of the maintenance and operations adjustment, see Hayward (2002).

²⁴ At the direction of the Legislature, MGT examined M&O costs in non-school facilities and found that the cost of M&O in school facilities in Wyoming compared favorable to those in other organizations. These data were collected for the purpose of comparison and were not used in the computation of the M&O adjustment.

Final Comments

It should be abundantly clear from this report that the recommended revised Cost Based Block Grant will work only if the data upon which it depends are accurate and reliable. Based on our recent experience, currently available data are not always either; nor are they always provided in a timely fashion. In order to achieve the levels of accuracy and reliability essential to the effective functioning of the Cost Based Block Grant, it is critical that the State obtain regular, unbiased information about district practices relative to allocating resources and accounting for their expenditure. This information would serve several useful purposes. It would provide the Legislature with independent unbiased feedback. It would be used by the Department of Education to develop and refine ongoing training of business officials and others who are responsible for accounting for expenditures. It would be used by the Department and Legislature as an early warning of unintended consequences associated with the funding formula and other legislation; and finally; it is just good government to ensure that taxpayers money is spent as intended and in a cost-effective manner. We therefore renew our recommendation that the State employ some number of auditors, independent of school districts and the Department of Education, to regularly conduct fiscal and program audits of each of the 48 local school districts. See also Smith and Hayward (2001).

Next we respond to concerns raised that the Cost Based Block Grant is too complex. It is complex, but no more complex than is necessary to comply with the Wyoming Supreme Court's rulings. At every opportunity where there was a choice, MAP has recommended the simpler course. Still the current model is very complex. In deed it will be one of the most complex in the nation²⁵. While the block grant concept is very simple and maximizes local discretion, each adjustment substantially increases the level of complexity. In short, the State can not comply with the Supreme Court's rulings and maintain a simple allocation formula.

Complexity comes with certain costs—some immediate and some potential. Clearly, the fiscal cost of gathering, verifying, storing and maintaining data is high and will of necessity increase over time. But, also a side effect of complexity is unintended consequences. School districts will respond to various provisions in ways never anticipated by the Legislature, and in some cases these unintended consequences will not only cost the state more money, but may have detrimental effects on children. Thus it is essential that the state not merely place the model into operation and hope for the best. It must be actively monitored and actively managed.

Finally, it is important for the Legislature to recognize how dramatically it has changed school finance laws in Wyoming. We know of no state that has made more fundamental changes to its school finance formula and which has increased funding at a rate faster than has Wyoming. This accomplishment is all the more remarkable considering that it has been accomplished in only four years.

²⁵ To our knowledge no other state has attempted to fund costs with the precision required by the Wyoming Supreme Court.

Bibliography

- Ehlers, John, Gerald C. Hayward, and Lawrence O. Picus (2002). Wyoming Education Finance: Small District Report.
- Guthrie, James W. et al. (1997). A Proposed Cost-Based Block Grant Model for Wyoming School Finance.
- Guthrie, James W. (2001). Wyoming Education Policy Alternatives: Complying with the Recent Campbell Decision.
- Hayward, Gerald C. (2002). Wyoming Education Finance: Modifying the Maintenance and Operations Adjustment to Comply with the Ruling of the Wyoming Supreme Court.
- Klein, Steven, Rosio Bugarin, and Gary Hoachlander (2002). Wyoming Education Finance: What Does It Cost? An Analysis of Annual Statewide Expenditures for Vocational Education in Wyoming.
- MGT of America, Inc. (1999). Routine Maintenance Funding Formula for State of Wyoming Public Schools.
- Picus, Lawrence O., Gerald C. Hayward, and John Ehlers (2002). Wyoming Education Finance: Small Schools Report.
- Seder, Richard C., Lawrence O. Picus, and James R. Smith (2002). Wyoming Education Finance: Estimating the Costs of Services for “At-Risk” Students.
- Smith, James R. and Gerald C. Hayward (2001). Wyoming Education Finance: Implementation Issues.
- Wolkoff, Michael J. (2002). Wyoming Education Finance: Regional Price Adjustment.
- Wolkoff, Michael J. and Michael Podgursky (2002). Wyoming Education Finance: Wyoming School District Employee Compensation.