



MANAGEMENT ANALYSIS & PLANNING, INC.

WYOMING EDUCATION FINANCE

Small School Funding Adjustment

Submitted to
Wyoming State Legislature

Prepared for MAP by
Gerald C. Hayward
Richard C. Seder
James R. Smith
John Ehlers

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CHAPTER ONE

Introduction

A. Introduction

Wyoming’s small schools are ubiquitous. They occur throughout the state and within both large and small districts. They come in all shapes and sizes—from one-room trailers educating as few as one or two students, to high schools with well-equipped science labs, gymnasias and even swimming pools. In many small towns, these small schools serve as the centerpiece of the community, often representing the largest source of employment and frequently serving as the focal point for community activities. Small schools constitute an essential part of the Wyoming education landscape.

Small schools represent about two-thirds of the state’s elementary and middle schools and about twenty percent of the high schools. Small schools far outnumber their larger counterparts, and they educate about 40 percent of the students in the state.

Within small schools, the variation is great.¹ In elementary schools, for example, about one-quarter of the small schools have 32 or fewer students, while about one-half fall within the range of 132 to 263 (see Table 1-1). The spread of the variation can dramatically be seen in Figure 1, with districts of varying sizes all operating small schools. Middle and high schools show similar dispersion (see Table 1-2 – 1-3 and Figure 1-2 – 1-3).

Table 1-1: Elementary School Sizes by District Size

School by Size	District by Size					Grand Total
	A. <250	B. 250-549	C. 550-1000	D. 1001-2346.5	E. >2346.5	
A. <=33	2	4	6	13	18	43
B. 33-65	1		4	6	6	17
C. 66-131		3	9	5	7	24
D. 132-263		6	14	15	40	75
Not a Small School		1	3	11	51	66
Grand Total	3	14	36	50	122	225

¹ Small schools are eligible for a small school allowance in addition to the amount they would receive if they were larger. The cut-off sizes for eligibility for assistance are the sizes of the existing prototypes for elementary (264 students), middle (300 students), and high (600 students).

Figure 1: Elementary School Size by District Size

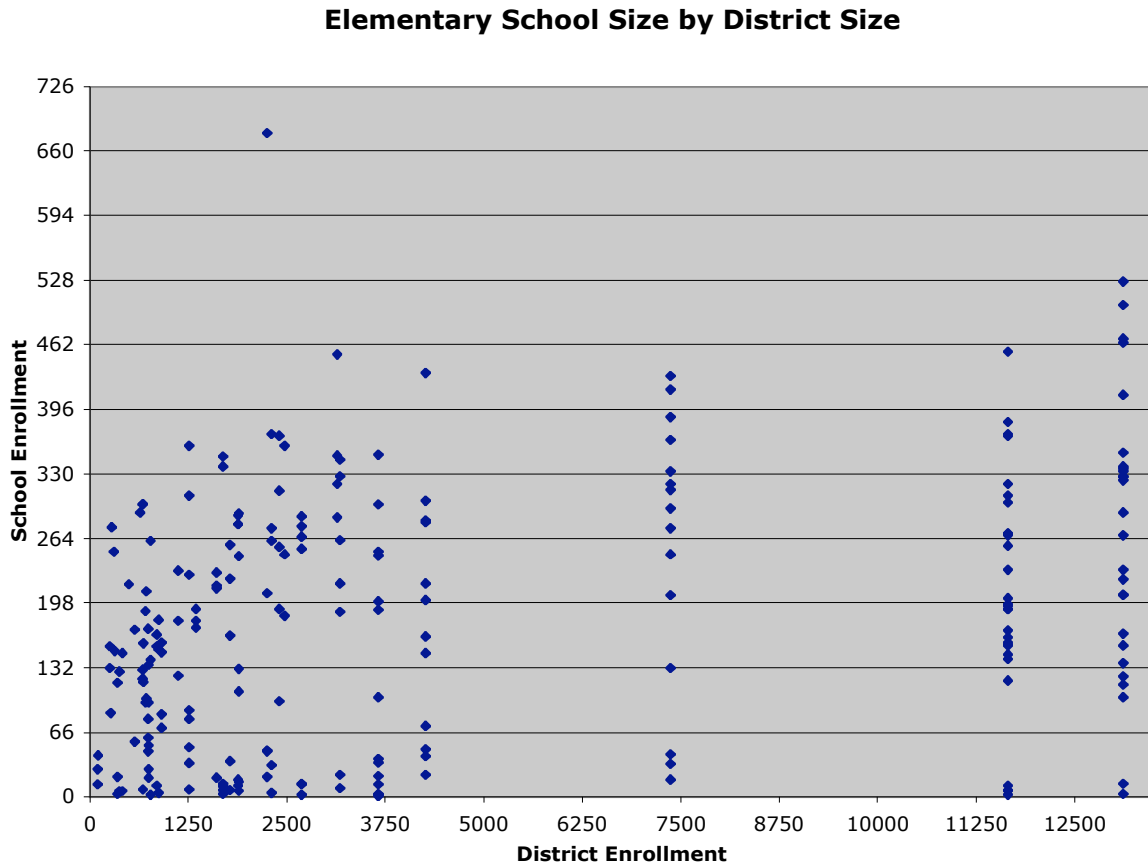


Table 1-2: Middle School Sizes by District Size

School by Size	District by Size					Grand Total
	A. <250	B. 250-549	C. 550-1000	D. 1001-2346.5	E. >2346.5	
A. <50	2	2	3	5	5	17
B. 50-149		6	6	4	5	21
C. 150-299		1	12	3	4	20
Not a Small School				7	19	26
Grand Total	2	9	21	19	33	84

Figure 1-2: Middle School Size by District Size

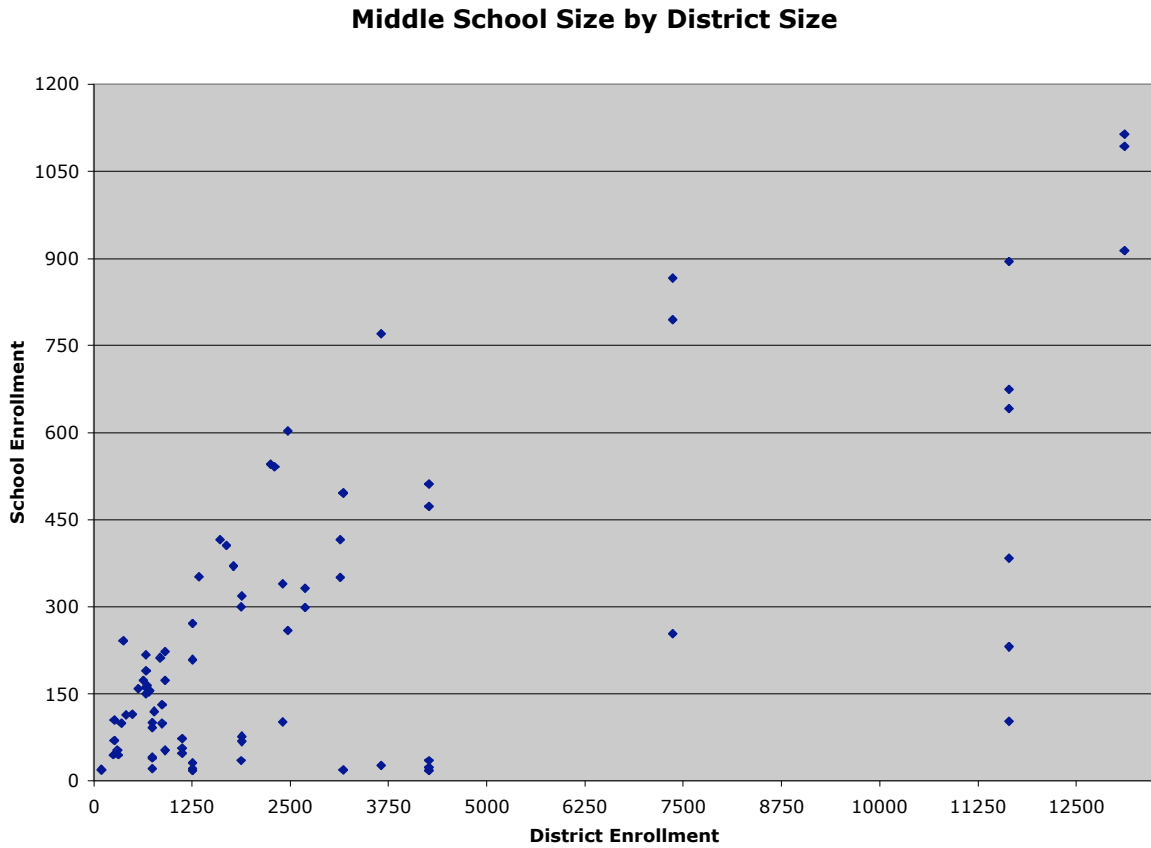
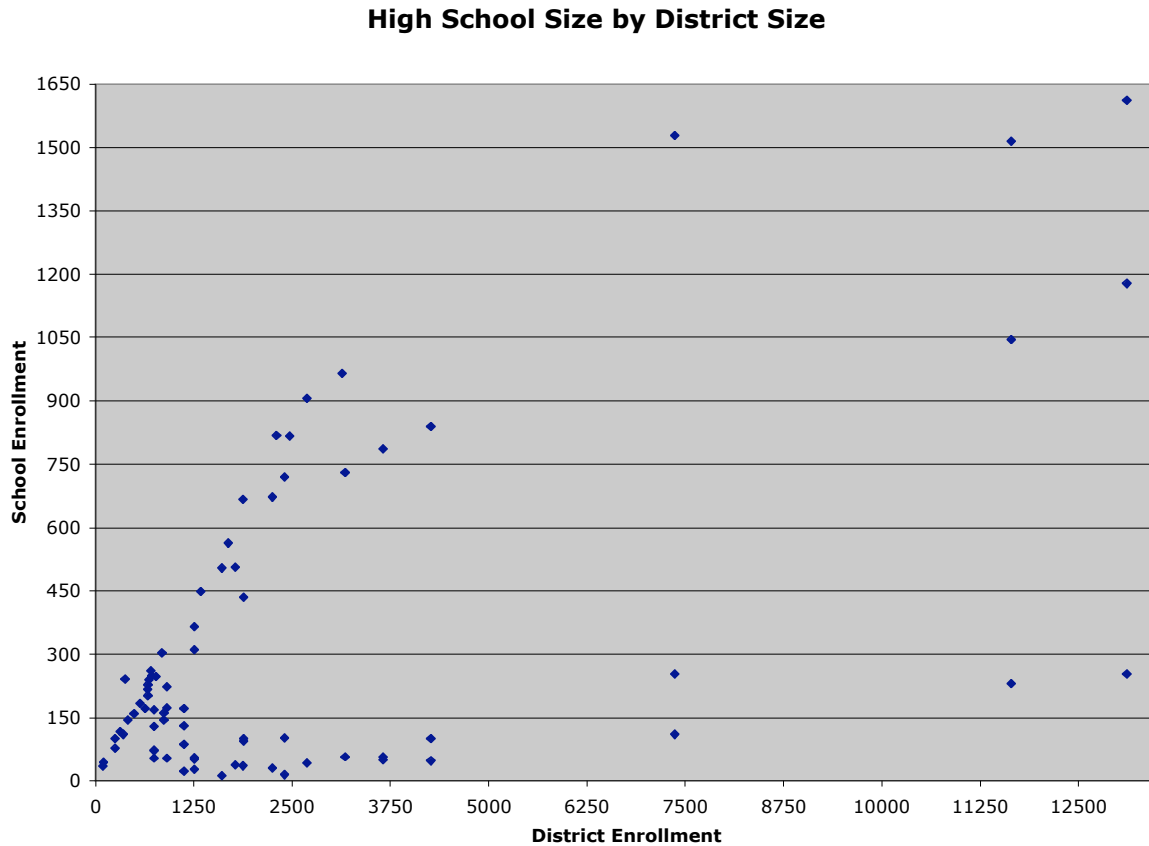


Table 1-3: High Schools by District Size

School by Size	District by Size					Grand Total
	A. <250	B. 250-549	C. 550-1000	D. 1001-2346.5	E. >2346.5	
A. <50	2			6	4	12
B. 50-149		5	6	6	5	22
C. 150-299		2	13	1	3	19
D. 300-599			1	7		8
Not a Small School				3	12	15
Grand Total	2	7	20	23	24	76

Figure 1-3: High School Size by District Size



Providing appropriate funding for small schools has been at the centerpiece of school finance discussions in the last few years. Prior to proposing changes to the current school finance arrangements for small schools, it is useful to review key provisions and alterations to the statutes impacting the small school allowance.

B. Recent Funding History ²

In response to the *Campbell I* decision, the legislature in 1997 essentially adopted the Cost-Based Block Grant model proposed by Management Analysis and Planning, Inc. (MAP). MAP recommended that elementary schools (grades K-8) with average daily membership (ADM) of less than 201 students, and high schools (grades 9-12) with ADM of less than 401 students, be eligible if they were also remote (requiring significant bus time for most students). Co-located schools were, for purposes of the small school formula, considered as a single school.³ A school was defined as a single building or multiple buildings within a one-quarter mile radius. In addition, provision was made for unusually small elementary and high schools, providing specific dollar amounts for schools within specific ADM ranges. For example, elementary schools with an ADM

² See Appendix A for a complete legislative history of the small school formulas.

³ Co-located schools are schools that have more than one school in a single or neighboring facility.

between one and ten students received the same total dollar amount. Additional funds were available for schools in the ranges of 11-20 students and 21-30 students. To be eligible for additional funding, additional teachers were required to be employed. Schools with an ADM of 31-200 students received a gradually decreasing amount per ADM until 200 students was reached, at which point they received the amount prescribed in the prototype. Similar provisions applied to high schools, with ADM of 1-16, 17-32, and 33-48 students comprising the groupings and a maximum of 400 students as the limit for additional funding.

Anticipating the court's ruling, the legislature modified the MAP formula to remove the remoteness criteria and instead adopted a five-mile radius proviso so that districts could not generate added money by creating new schools in a town. Ultimately, the legislature delayed implementation of the small school portion of the formula pending further study.

In the meantime, the district court ruled the provisions relating to small schools unconstitutional on the grounds that they were not cost-based and that funds were not shown to be adequate to deliver the basket of educational goods and services required. The five-mile rule was invalidated as well.

The legislature authorized a new small school study that resulted in legislation adopted in the 1998 Special Session. The legislature essentially retained the MAP formula, grandfathered in existing small schools subject to periodic review, and provided for state review for the establishment of any new small schools. For unusually small schools (less than 30 students in elementary and 48 students in high school), additional funds were made available to add incremental adjustments, and provide for reimbursement for costs actually incurred. The legislature also authorized reimbursement for student activities and utilities, and provided a food service adjustment for small schools. Special provisions were adopted for small districts. Alternative and charter schools also were made eligible for the small school adjustment if they met the ADM requirements.

In 2000, the district court again determined the small school formula unconstitutional on the grounds that it was not cost-based. In 2001, the Supreme Court essentially agreed with the district court and determined that the small school formula was unconstitutional in three specific areas: the state had not adequately demonstrated that the formula was cost-based, the cutoff sizes of 200 and 400 students were arbitrary, and the reimbursement for student activities, utilities, and food service were not justified.

In 2002, the legislature tried again, this time with a funding model that tied ADM levels to the personnel required to provide the basket. Importantly, eligibility for inclusion in the adjustment was expanded to include all schools of less than prototypical size down to the smallest school (the unusually small school adjustment was eliminated). In that formulation, based upon regression analyses of district reported staffing data, schools would receive assistance on a sliding scale with smaller schools getting additional dollars per ADM. The impact of this small school approach was not felt because the legislature adopted a hold-harmless statute (applicable to all districts, not just those with small schools) that prevented districts from losing money (except from loss of ADM) below the base year of 2001-02. In other words, districts were guaranteed the higher amount of their

2001-02 allocation or the results of the new formula. The hold-harmless provision delayed the impact of this formula, deferring the effective date to the 2004-2005 school year. If the legislature takes no action, the funding formula described above will take effect.

Figure 1-4 displays the overall differences in the impact of the elementary formulas. Examining different segments of the distribution presents a more detailed picture. Figure 1-5 displays the impact at the smaller end of the distribution. The dotted line represents the earlier formula and the effect of grouping in the 1-10, 11-20, 21-30 student segments. The court in effect ruled the jagged steps in the formula unconstitutional. The upper end of the distribution can be seen in Figure 1-6, which displays the impact of the cutoff of the older formula at 200 students, which the court also objected to, and the smooth continuous function of the new formula all the way to the prototypical-size school, at which point the small school formula is no longer in effect. This display compares dollars per small school student, and shows that for much of the distribution, the older formula generates more dollars per student. The newer formula, however, distributes dollars to more students.

Figure 1-4: Small Elementary School Per-Pupil Funding Change

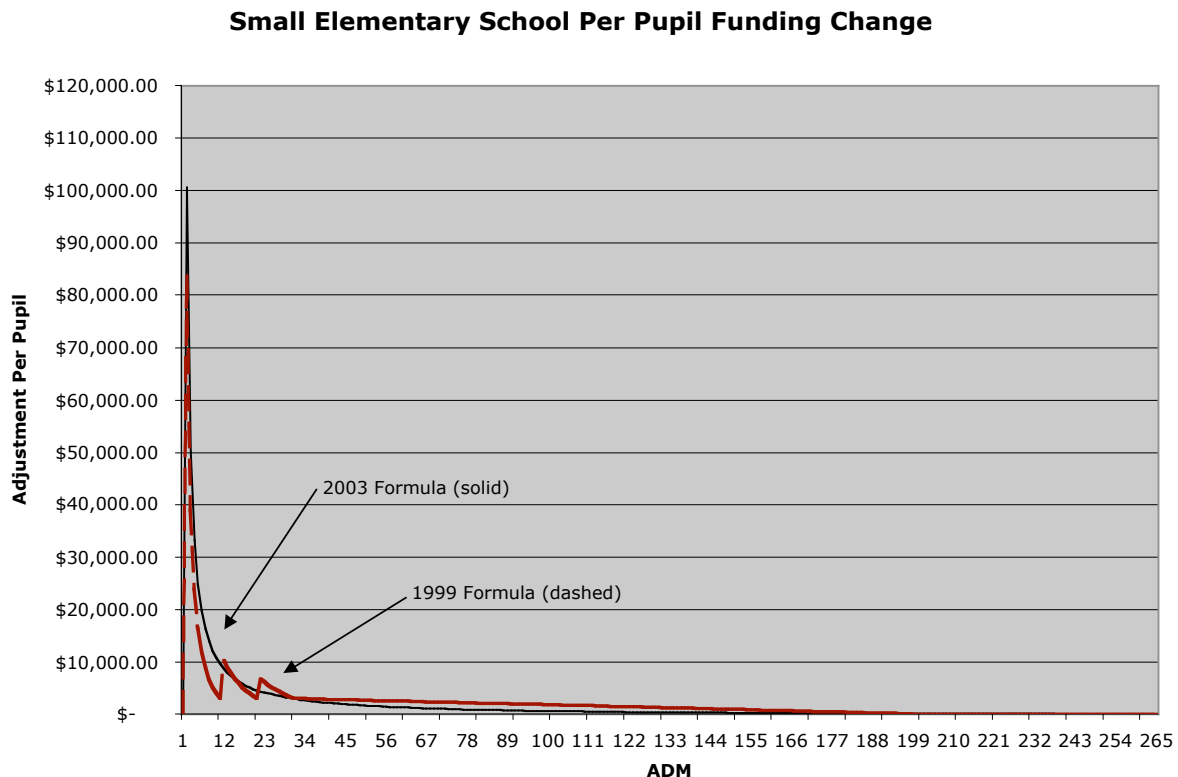


Figure 1-5: Small Elementary School Per-Pupil Funding Change 0-60ADM

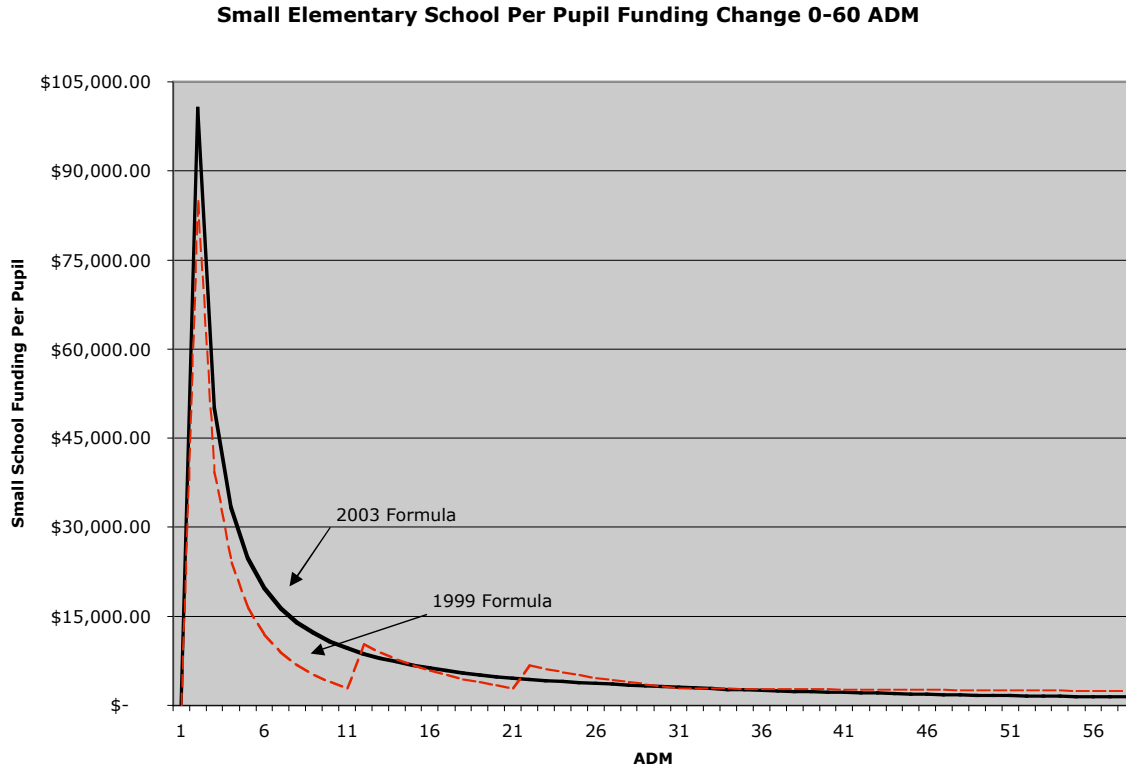
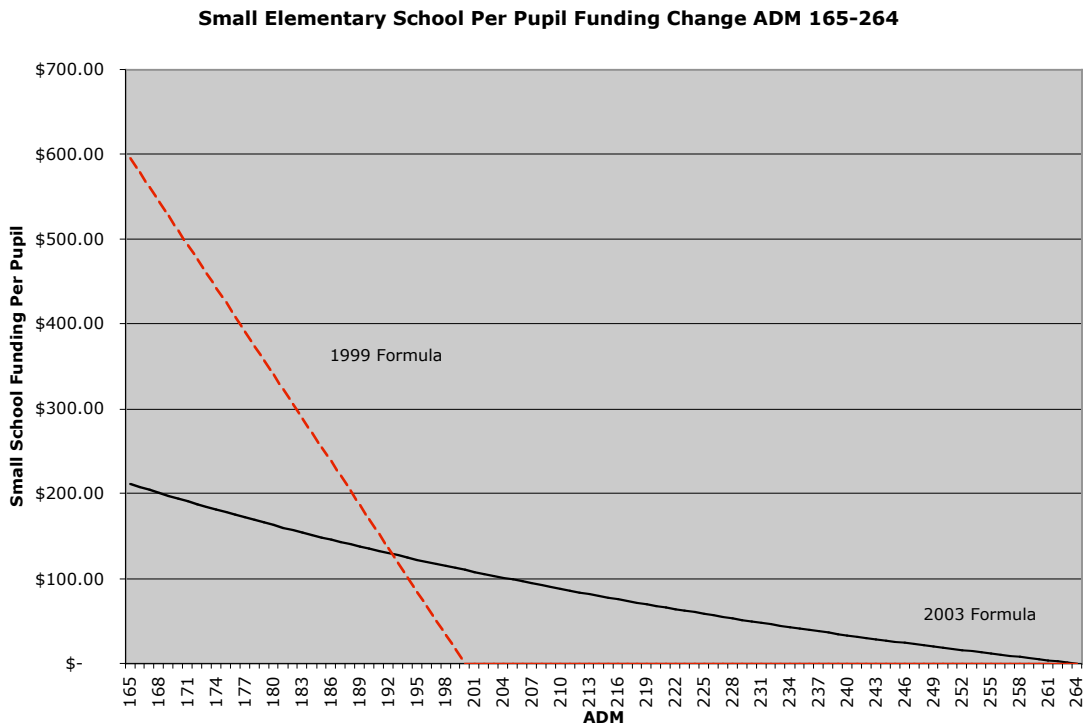


Figure 1-6: Small Elementary School Per-Pupil Funding Change ADM 165-264



C. Ongoing Problems

In reviewing the recent history of funding small schools in response to court decisions, a major sticking point has been the lack of data regarding small schools. Wyoming, like most states, has not routinely collected school-by-school expenditure data. Arriving at a cost-based system without high-quality school-by-school data has been a challenge. The legislature, therefore, called for the collection of school-by-school expenditure data starting with the 2002-03 school year. Although there were reporting inconsistencies, data gaps and incomplete data, this represented a major accomplishment. The data collection effort, while imperfect, with adequate attention and state and local leadership, will improve over time. A solid first step has been taken.

The second major problem in developing funding formulas for Wyoming is the number of unique situations that exist in the state. The vast number of small schools, the population sparsity of many of their attendance areas, and the varying geographical and climatic situations in the state often call for the kind of individual attention that does not lend itself well to school finance formulas that must treat every child in the state equitably. No school formula can compensate for every idiosyncratic variation in cost, many of which are quite small, transitory, or the result of local choice. The formula proposed in this report minimizes these idiosyncratic variations, and as the quality of data reported by districts improves, these marginal differences can be further reduced.⁴

In addition to the data problems and the problems caused by variation within schools, two additional issues warrant mentioning. The first is the problem of declining enrollment. The problem is pervasive. The average district has declined 11 percent since 1997-98. The decline has occurred every year since then, and all but three districts have experienced a loss of students. In some cases, it has been particularly devastating. Four districts have lost 30 percent or more of their students since 1997-98. Small schools and small districts both have faced declines in enrollment that are on average even greater than their larger colleagues. Because the costs of providing education in the short term tend not to decline as fast as revenues when a district loses students, declining enrollment presents unique challenges to school district administrators. However, a small school adjustment cannot be expected to solve all of the funding problems these schools face. The declining enrollment problem is especially acute in the smaller schools that cannot easily accommodate reductions in personnel below a certain point without jeopardizing their ability to deliver the full educational program required by state law. More acutely problematic are small schools in small districts. Larger districts have the added flexibility of moving resources from one school to another to accommodate shortfalls or moving students from one school to another. Often, small districts simply don't have that luxury. The legislature has recognized this problem by counting a three-year rolling average ADM, rather than actual ADM, and implementing various "hold-harmless" provisions to minimize the effect of declining enrollments.

⁴ Many of the real cost differences that are beyond the control of local decision makers are not a function of the factors addressed in the small school formula. Many result from regional cost differences, which need to be addressed by the regional cost adjustment currently under development.

The second problem has been the impact of the court decision on the regional cost adjustment, which has disproportionately negatively impacted the smaller, more remote districts. Consideration of the impact of the small school formula must take into account a more equitable regional cost adjustment. Only combining the small school adjustment with the regional cost adjustment proposals the legislature are considering will give a true picture of the adequacy of funding for the small schools.

D. Advisory Committee:

MAP also met frequently (on an almost monthly basis) with a group of Wyoming Educators who constituted our Advisory Committee, which included members of the legislature, school superintendents, business managers, and principals.⁵ There were representatives from large districts, small districts, remote districts, and districts with co-located schools. We shared information with the committee as it became available to us and discussed various alternative approaches. The Advisory Committee provided much-needed input on the adequacy of the various small school prototypes, and provided invaluable insights about the potential effects of alternative configurations. The committee made many useful suggestions that improved the overall quality of the document. MAP, of course, retains the ultimate responsibility for its recommendations, but we readily acknowledge the useful input provided by these Wyoming practitioners.

E. Summary

Funding arrangements for small schools have undergone significant changes in the past few years. “Hold-harmless” provisions adopted by the legislature have mitigated the impact of these alterations. If the legislature takes no action, the formula developed by MAP in 2002 will take full effect in the 2004-05 school year. In the sections that follow, MAP outlines the steps it has taken to propose a new funding formula to replace the current one. MAP reviewed small school funding arrangements in other states, conducted numerous site visits, thoroughly reviewed the new data on small school costs, and addressed a number of issues facing small schools. The resulting formula more accurately reflects the costs affecting small schools than any prior formula.

⁵ For a list of the members of the advisory panel, see Appendix B.

CHAPTER TWO

Funding Adjustments for Small Schools and Districts: A Survey of the States

MAP reviewed provisions for funding adjustments for small schools and districts in other states. This information was gleaned from the latest available nationwide collection of school finance provisions: Public School Finance Programs in the United States and Canada: 1998-99, published by the National Center for Education Statistics in partnership with the American Education Finance Association and the National Education Association. The report is about 1,300 pages in length, with experts in each jurisdiction contributing a 20-page description of their state or province school finance system. Some of the descriptions are out-of-date or incomplete, but taken as a whole, the information provides a broad sample of the issues and alternatives in funding small schools and districts.

This review focuses on the basic support provisions in each state. It does not address transportation funding formulas that often include sparsity factors, nor does it examine categorical programs that frequently include minimum grants to individual schools that result in significantly higher per-pupil allocations for small schools.

Detailed state-by-state summaries are included for those states that reported a funding adjustment for smallness in Appendix C.

A. Eligibility Criteria for a Small Size Adjustment

Criteria vary widely among states. Even within criteria there is large variation. The factors that states most often consider when they adjust for district or school smallness are listed below with appropriate examples cited.

Districts: **District size.** Sets maximum eligible size, Georgia has a “base” size for districts of 3,500 full-time equivalent students; Colorado, on the other hand, reports its limit is 5,626 students.

Sparsity. Pupils per square mile maximum. Arkansas uses district size and two levels of sparsity, five students per square mile receive one level of support ; 1.2 students per square mile generate additional aid.

Non-formula criteria in law or regulations. Utah requires districts to make annual application for small-school allowance.

Local wealth. Tax base per pupil: Pennsylvania uses a combination of size and district wealth per student in its formula.

Schools: **School size.** Sets maximum eligible size. Minnesota limits formula to elementary schools with fewer than 20 students per grade; Georgia’s adjustment goes up to 450 students.

Sparsity. Pupils per square mile maximum. Nebraska uses a formula that adds dollars to schools with 200 students in more than a 600-mile area.

Non-formula criteria in law or regulations. Utah sets aside money for small and rural schools that “cannot be readily consolidated with other schools.”

District size. Maximum district size for individual school eligibility: California limits support for schools in districts of less than 2,501 students. Small schools in larger districts receive no adjustment.

Distance from other schools offering same grade levels. North Dakota provides funds based on the percent of students who would have to travel at least 20 miles to attend school.

B. Resource Allocation Methods

The methods for providing additional support for small schools and districts vary as well.

District and School:

Linear formula. Based on empirical analysis, often a regression equation—the line flattens out at maximum eligible size. Montana is an example of a state that uses a straight-line distribution mechanism.

Step function. All schools or districts in a size category receive the same amount. California provides a flat amount for schools within various ranges—all elementary schools of less than 26 students get the same amount, as do schools within the ranges of 26-50, 51-75, and 76-100 students.

Simple cutoff. All schools or districts below a certain size receive the same amount per pupil. Pennsylvania gives a flat dollar amount per pupil to any district that is below average wealth and has less than 1,501 students.

Non-formula decision process. Funding is based on criteria in law or regulation; it may require district or school to submit application. Utah uses such a formula.

School only:

School allocation tables for teachers, certificated support personnel, classified personnel, and other operational expenses (like the step function but explicitly based on number of personnel rather than dollars). Nevada, for example, uses an allocation table that provides for the teachers and licensed non-teaching staff. The tables are adopted by the Nevada State Board of Education.

It should be noted that 22 states had no mention of adjustments for school or district size in the descriptions of the state school finance systems. Many of these states, however, use sparsity factors in their transportation funding formulas.

B. Implications for Wyoming

There are no uniformly accepted sizes or funding strategies that states employ. Most states recognize, either through a small-school adjustment or through transportation augmentations, the diseconomies associated with small size, but the manner in which states deal with the issue is often determined by the unique characteristics of the state, tradition, political decisions, and the number of small schools and districts in the state.

CHAPTER THREE

Site Visits

A. Site Visit Detail

To see beyond the numbers and understand what was happening in actual small-school settings in Wyoming, MAP undertook a series of site visits in the spring of 2003. MAP senior consultants visited 79 schools located on 66 sites covering all parts of Wyoming. The schools ranged from an ADM of one student to a school with over 300 students. Faculty size varied from one staff member to 30 staff members. The schools in our sample were broadly representative of small schools throughout the state. They occurred in small districts and large districts in rural, remote areas, and in the hearts of towns.

Facilities ranged from elementary schools in portable trailers with space for a classroom and a teacherage, to fully equipped high schools with a gymnasium, auditorium, indoor swimming pool and art center. Schools were organized in many different ways. For example, the 36 elementary schools represented six different grade configurations (e.g., elementary schools K-2, K-4, K-5, K-6, 3-5, 3-6). MAP visited 15 middle schools in three different grade configurations and 19 high schools in two configurations. The sample included nine co-located schools, three alternative schools, and a University Laboratory School.

In a typical school site visit, a senior MAP consultant interviewed the principal (see Appendix D for the interview protocols), visited every classroom, toured the facility, and talked with teachers, students, and classified staff.

Each MAP consultant formed some general and specific impressions, which were then shared with the other consultants. A high degree of agreement on the overall impressions MAP formed as a result of the visits to the sites.

MAP was struck by the physical condition of the schools. With few exceptions, the schools visited were in very good condition, even though several buildings were older. The vast majority were clean and well maintained with no evidence of graffiti or other signs of neglect. In most schools, there was plentiful space with many classrooms either empty or housing very few students. Schools were well-supplied and well-equipped. Most schools had plenty of computers (many new ones) and all connected to the Internet. Overall class sizes were small, especially in small, isolated rural schools located in small districts.

MAP found the vast majority of the small schools visited to be pleasant places. Students were friendly, classes were orderly, and in most places, there was a high level of student engagement in the classroom activities. The interviewed personnel and students were friendly, open, and articulate. Overwhelmingly, they expressed their fondness for the small-school setting.

B. Principal Questionnaire

The questions posed to the principals covered a variety of topics related to small schools generally and to small-school support more specifically. We summarize below the key findings.

1. Enrollment Changes

When asked about significant enrollment changes, about half the principals reported projected changes, and most of the projected changes would continue a pattern of declining enrollment. In short, principals expect the pattern of declining or stable enrollment to continue.

2. Fully Certified Teachers

More than two-thirds of the principals reported that all of their teachers were fully certified. Of those with less than fully certified teachers, only a small minority of the teaching staff lacked full certification, and most of these were teachers of special education or music. Other certification shortages mentioned were in mathematics, science, and language arts. Shortages in special education, mathematics, and science reflect national problems.⁶

3. Teacher Turnover

Over two-thirds reported that teacher turnover was not currently a problem, but several suggested it as a potential problem. Some noted that the problem of teacher turnover was mitigated by the need for fewer teachers brought about by declining enrollment. For those who reported that this was a problem, isolation, jobs for spouses, and difficulty in hiring specialists were mentioned as particular problems.⁷

4. Employment Patterns

Personnel sharing is an important way for these small schools to deal with staffing issues. MAP witnessed extensive personnel sharing across grade levels and between schools, especially with specialists in elementary-level art, music, and physical education teachers. High schools and middle schools also frequently share staff between schools and grade levels. Smaller districts have more difficulty in this regard than their larger counterparts, but we were unable to locate any instance in Wyoming where a small middle school was not located close enough to a high school for the two secondary schools to share staff.

⁶ As MAP previously has pointed out, there is not a general teacher shortage in Wyoming schools. Shortages of certain specialties result in part because of the single-salary schedule. Higher pay for the relative small number of shortage specialties would be a rational and cost effective way to minimize, if not eliminate, any teacher shortages.

⁷ To the extent that teacher turn over is a problem, and that it is a problem associated with salary levels, it should be addressed by a revised regional cost adjustment. As described in various MAP reports, compliance with the court's ruling on the regional cost adjustment disproportionately adversely affects small, remote districts.

5. Contract Employees

About two-thirds of the principals reported that they employed “contract” professionals with specific skills. Most of this employment was reported in special education. Many contracted with specialists for whom it would be inefficient to hire in the traditional manner because they served so few students. The costs of these services are fully reimbursed through the special education portion of the Block Grant.

6. Remoteness

Remoteness in many states is measured by the time it takes to travel to the next nearest school covering the same grades. In Wyoming, the results were highly variable, ranging from a half minute to two hours, but most fell within the range of 30 to 60 minutes.

7. Advantages of Small Schools

Principals were asked to list the advantages accruing to students who attend small schools. The responses almost always listed four factors (not in any order). The first is the advantage of individual attention. Because of the smallness, almost no student “falls through the cracks.” The teacher has time to get to know the strengths and weaknesses of each child and to design a learning program that best meets the child’s needs. The second factor (related to the first) was the notion that staff in these smaller schools, because they are so closely connected with the students, care deeply about them. Principals heaped high praise on the caring nature of their teachers. The third factor, especially for middle and high schools students, is the ability to participate in student activities such as music, athletics, and student government. Students in these smaller schools have a greater chance to participate in co-curricular activities. Finally, principals remarked on how the smaller schools really have much higher levels of parent participation, support, and involvement than in larger schools.

8. Unique Challenges

MAP was also interested in the challenges facing small schools. Principals responded that, particularly for high schools, the lack of curriculum flexibility was a problem. Grade level enrollments were sometimes too small to offer the full range of courses enjoyed in larger schools. Extensive travel time is a fact of life in rural areas in Wyoming across all types of schools, and time spent on the bus was seen as time that could have been better put to learning. Staff isolation, especially in very remote areas, was mentioned by several principals and the concomitant lack of amenities in the community. Related to that was the lack of quality professional development activities, especially in small schools in small districts. For teachers in these districts, professional development necessitated travel to Casper or Cheyenne and one or two nights away from home and school. Many

principals face the challenge of scheduling required specialist teachers, especially if they are shared by a number of schools or districts. Principals also report concern over the increasing paperwork created by state and federal laws and regulations.⁸

9. Consistency with State Law

Almost unanimously, the principals responded that the program they offered was consistent with state law and that they could offer the basket as specified in state law.

10. Assistance from the State

The final question solicited views on how the state could help them do their jobs. The responses can be grouped into four categories:

a. Policy Stability

Principals noted that their lives would be improved if there were fewer changes to state and federal laws, if they were given sufficient lead time for their local budgets by having more predictable stable budgeting, and if the school finance mechanism was more straightforward.

b. Reduction of Paperwork

State and federal bureaucrats are not sufficiently cognizant of the disproportionate impact of increased paperwork on smaller schools and districts. These districts are required to meet the same level of sophistication and volume of reporting as their larger counterparts without the advantage of specialized personnel enjoyed in the larger districts.⁹

c. Professional Development

Principals were often frustrated by the lack of professional development programs for their teachers, especially those from isolated areas who are not close to universities or colleges or Casper and Cheyenne and are too small to attract expensive consultants.

⁸ Although not a problem unique to small schools, several principals noted the surge in health care costs, which were impacting their current budgets. MAP collected no data on health care insurance premiums and has no evidence to substantiate the extent to which this is a substantial problem. The most recent recalibration of the cost model did increase the allocation for health care insurance to a level consistent with costs actually experienced by districts at that time. See MAP report Smith, James. *Proposed Revisions to the Cost-Based Block Grant Model*, MAP, January 2002.

⁹ Cognizant of this need, the small-district adjustment adopted by the legislature in 2002 (See MAP report Ehlers, John, et al. *Small District Report*, MAP, January 2002.), provides for a minimum level of administrative support for even the smallest district.

d. Credentialing

Several principals saw the lack of flexibility in state credentialing requirements as a major hurdle, particularly in three areas: specialists in elementary school, shared teachers in middle school, high school, and special education, mathematics, and science in the high schools. Much concern was expressed over the requirement of No Child Left Behind, especially in small school districts.

C. Implications

The site visits were particularly useful. MAP witnessed first hand the nature of the small-school experience in Wyoming. Almost every school visited could be considered unique. The tremendous variation in size, grade configuration, geographic and climatic conditions, and distance from population centers make it particularly challenging to develop a precise funding formula. The visits helped us identify the variables that we hypothesized are related to costs in small schools. The following are areas that we determined deserved further analyses.

1. School Enrollment

The number of students enrolled in a school tends to be the most important determinant of per-pupil costs in providing “the basket”.¹⁰ To use an extreme example, under existing law, a school with one pupil would still require a full-time teacher. Adding several additional students (up to the point that another teacher was required) would not significantly increase the total cost of offering the program but would bring down the per-pupil cost precipitously. That same general principle could be applied throughout the size continuum. As schools approached the prototypical school size, their costs per ADM approached the costs incurred by the prototypical students. There are two variables that explain much of the differences in costs between smaller and larger schools. The most important factor is the number of teachers required, which is heavily dependent on the pupil-teacher ratio, which tends to get lower as schools become smaller. The second is fixed costs, which, in small schools, are shared across fewer students, thus making the per-pupil costs higher. To illustrate, utility costs for a school of ten students may be as high as for a school of 30 students. On a per ADM basis, these costs are spread over fewer students thus making the needed amount higher. This principle applies to personnel costs as well, such as clerical support and school administration.

2. District Enrollment

MAP found that small schools in small districts did not have the same capacity to share resources with other schools as small schools in larger districts. Professional

¹⁰ Basket is a term of art unique to Wyoming, which refers to the legislatively determined definition of student outcomes and course requirements specified in WS 21-9-101.

development and staffing were particularly dramatic examples. Small schools in larger districts were often paired with larger schools for professional development purposes and could share specialists across schools. Small schools in smaller districts also had a richer pupil-teacher ratio, especially in districts of 250 or fewer pupils. Smaller districts had fewer organizational options that could lead to efficiencies in operation than those in larger districts.

3. Remoteness

Schools that were far from population centers tended to experience higher costs and unique problems. These schools reported having more difficulty attracting and retaining personnel, providing quality professional development opportunities, and providing a broad range of options for the students who were in attendance. Most of the remote schools are located in small districts, thus compounding their problems.

4. Co-Located Schools

Co-located schools (various grade configurations at a single site treated as multiple schools) have been a perennial Wyoming school finance problem. Past attempts at defining schools differently or limiting the creation of new co-located schools have met with mixed success. The small-school formula is intended to adjust a district's allocation of funds to take into account the costs associated with diseconomies of scale generated by small sizes. In Wyoming, there are cases in which a campus with grades K-12 exists, but for purposes of funding, it is considered as three separate schools, each eligible for a small-school formula based on the ADM of each "school". For example, a single building might house a school with grades K-5 with an ADM of 100 students, a middle school with grades 6-8 with 50 students, and a high school with grades 9-12 with 60 students. Rather than consider this one school with an ADM of 210 students, for funding purposes the current law allows some such schools to be counted as three schools that are eligible for the richer formula that their smaller reported size would generate. This richer formula has permitted the co-located schools to have more generous resources that typically translate to more generous pupil-teacher ratios than their non-co-located counterparts.

CHAPTER FOUR

Data Analysis

A. Variable Hypotheses

In the development of a cost-based model for small schools, MAP reviewed the history of small-school adjustments in Wyoming and evaluated how other states fund small schools. With the small-school adjustment history in Wyoming and other states as a backdrop, MAP conducted numerous site visits and analyzed the current climate of Wyoming small schools. MAP created a set of hypotheses about the dominating cost factors of Wyoming small schools based on all of this information.

1. School Size

Without a doubt, school size is the dominant factor when constructing a cost-based model for schools. As the number of students in a school increases, the school can take advantage of economies of scale. In every school, pupil and support services are employed to deliver the “basket” to students. Thus, as the number of students increases, more students take advantage of those services therefore becoming less costly on a per-pupil basis. MAP observed through its site visits and data analysis that increases in the number of students led to increases (but on a declining ratio basis) in the number of personnel and non-personnel items to deliver the basket.

2. District Size

Wyoming small schools exist in districts of all sizes, including the two largest districts in the state. Based primarily on the site visits, MAP determined that there were differences in staffing and non-personnel allocations between small schools in districts that do not receive a small-district adjustment and small schools in districts that do. As with school size, factors related to economies of scale would be expected to exist as the number of students within a district increases. That is, the number of schools providing services would be expected to increase as the number of students within a district increases.

3. Remoteness¹¹

The isolation of schools and students from other schools, district offices, or population centers is often considered in other state funding formulas. MAP’s site visits suggested that school remoteness contributed to different staffing arrangements within small schools. The higher-than-expected cost factors associated with remote small schools compared to other small schools may arise

¹¹ Perhaps the most significant cost associated with remoteness is student transportation. In fact, in many states this cost is the primary driver of adjustments for small remote schools. Because Wyoming reimburses 100% of student transportation costs, any cost issues arising from transporting students are moot.

from being even smaller in size because they draw from a smaller number of geographically isolated students in its attendance zone that must be served with the full basket of services. As a measure of geographically isolated schools, MAP used geographic information systems databases of U.S. Census Bureau data to build a variable that measures the population density of school-aged children around a school site.

4. Co-located Status

School districts and the Wyoming Department of Education have seen the consolidation of school levels into a single physical structure (an efficient and rational decision on the part of districts), but the maintenance of separate school designations as if they were separate buildings. As with school size, one would expect that a single building with two or more school levels, and their enrollments, would be able to take advantage of economies of scale associated with that larger enrollment compared to schools located in separate facilities. The site visits suggested that there were resource allocation differences between co-located schools and comparably situated schools without co-located status.

5. At-Risk Student Population

The Wyoming Cost-Based Funding Formula provides additional financial resources to districts if a school in their district had higher-than-state-average concentrations of at-risk students.¹² Though the at-risk funding generated by schools is provided to the school districts and not directly to the schools, one would expect that a portion, all, or more than the generated level of resources would be provided to schools with higher concentrations of difficult-to-educate students.

B. Data Analysis

MAP's site visits proved to be a powerful tool in testing existing hypotheses, and also provided the grounds for creating new hypotheses about cost factors in Wyoming's small schools. However, the availability of quantitative data at the individual school level provides the ability to go beyond anecdotal, site-visit data. The relationships between cost factors and actual school-level personnel and non-personnel allocations can be broken down quantitatively and determined statistically.

1. School Size

If teacher allocations to the elementary schools were made solely on the per-ADM allocations generated by the funding formula, one would see a constant pupil-teacher ratio of about 16-to-1. Using cross tabulations of data (cross-tabs),

¹² In the 2001-02 recalibration of the Wyoming Cost-Based Funding Model, at-risk students were proxied by using an unduplicated count of students who qualified for the federal free- and reduced-price lunch program or were identified as Limited English Proficient (LEP).

different personnel and non-personnel allocations emerge by school size. Table 4-1 shows the pupil-teacher ratios of elementary schools with different enrollment (ADM) sizes.

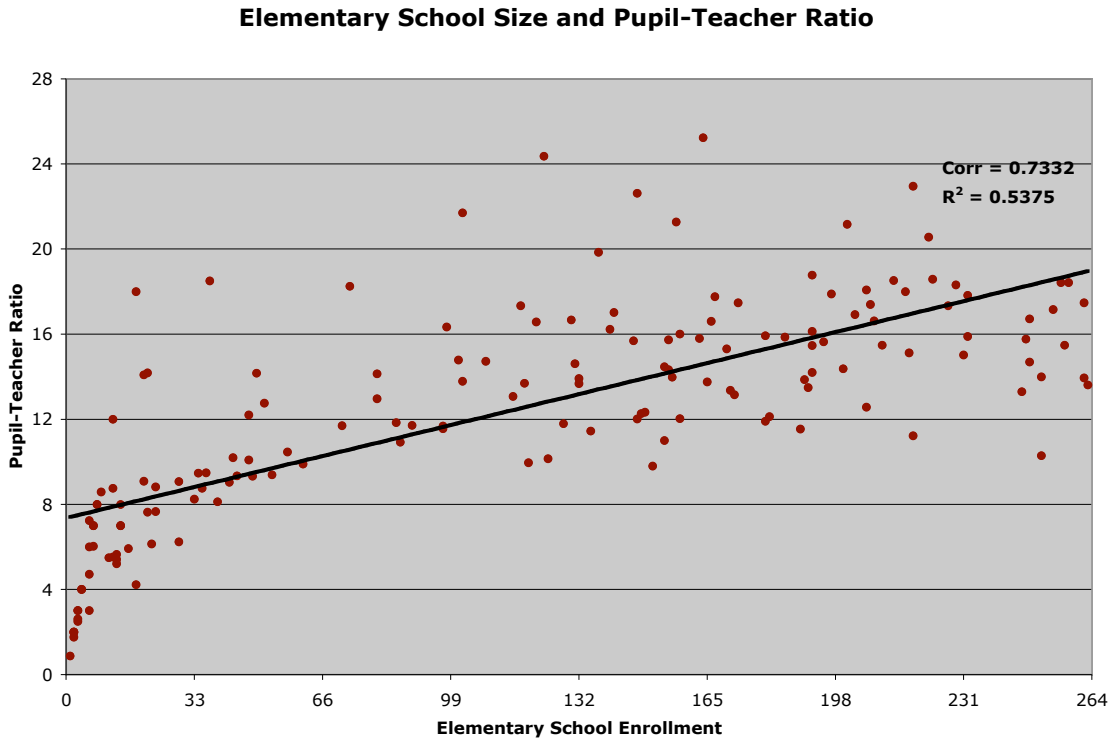
Table 4-1: Elementary School Sizes and Pupil-Teacher Ratios

School Designation	Total
A. <=32	6.38
B. 33-65	10.55
C. 66-131	14.34
D. 132-263	15.71
Not a small	17.53
Grand Total	13.92

Clearly, as elementary school sizes increase, so do pupil-teacher ratios. That is, as the number of students in a school increases, more students are served by an increasing number of teachers. However, the increase in the number of teachers in a school is not made on a one-to-one basis or other easily determined, proportional increase as the number of students increase.

Figure 4-1 provides a graphical illustration of Wyoming’s small elementary schools and their pupil-teacher ratios

Figure 4-1: Elementary School Size and Pupil-Teacher Ratio



Like Table 4-1, Figure 4-1 shows the general trend line of increasing pupil-teacher ratios with increases in school size. The correlation coefficient of 0.7332—the measure of the linear relationship between pupil-teacher ratio and school size—is statistically significant.

The hypothesis that school size is a dominant cost factor in Wyoming small schools is substantiated by the correlation coefficients associated with school size (as measured by ADM) and staffing and non-personnel allocations. Further evidence of school size as a cost factor can be seen through a simple regression—the measure of causal relationship between two variables (in this case, school size determining the number of teachers, and, thus, pupil-teacher ratio)—shows that more than 53 percent of the variation in pupil-teacher ratios between schools can be explained by school size alone. In fact, school size proved to be the dominant and consistently statistically significant cost factor for all personnel categories and non-personnel allocations for elementary, middle, and high schools.

2. District Size

As with school size, cross-tabs show real differences in pupil-teacher ratios by district size in the elementary schools.¹³ Table 4-2 shows the elementary school pupil-teacher ratios by district size.

Table 4-2: Elementary School Pupil-Teacher Ratios by District Size

District designation	Total
A. <250	7.36
B. 250-549	11.28
C. 550-1000	12.05
D. 1001-2346.5	13.36
E. >2346.5	15.17
Grand Total	13.92

The correlation coefficient for elementary school pupil-teacher ratios and district size, as measured by number of students, was 0.1865, lower than the correlation coefficient for school size, though still statistically significant. However, less of the variation in elementary pupil-teacher ratios between schools can be explained by district size.

However, a similar pattern does not emerge when middle school pupil-teacher ratios are analyzed by district size (Table 4-3) and only slightly in high schools (Table 4-4).

¹³ District sizes for the cross-tabulations were based on the ADM cut points for the small-district formula.

Table 4-3: Middle School Pupil-Teacher Ratio by District Size

District Designation	Total
A. <250	12.48
B. 250-549	12.79
C. 550-1000	12.72
D. 1001-2346.5	14.59
E. >2346.5	13.94
Grand Total	13.60

Table 4-4: High School Pupil-Teacher Ratio by District Size

District Designation	Total
A. <250	6.03
B. 250-549	11.00
C. 550-1000	11.56
D. 1001-2346.5	13.40
E. >2346.5	15.50
Grand Total	12.93

Very little difference in middle-school pupil-teacher ratios can be seen by differences in district size, and the dearth of middle schools and junior high schools and high schools in Wyoming accounts for some of that difference. That is, there are not enough data points, unlike elementary schools, for any clear allocation patterns to emerge. After all, there were only two identifiable middle schools and two identifiable high schools in school districts with less than 250 students. Additionally, as confirmed by site-visit data, small middle schools and high schools in small districts (districts with less than 2,346 ADM) tend to be located near another geographically and/or have co-location status (explained later).

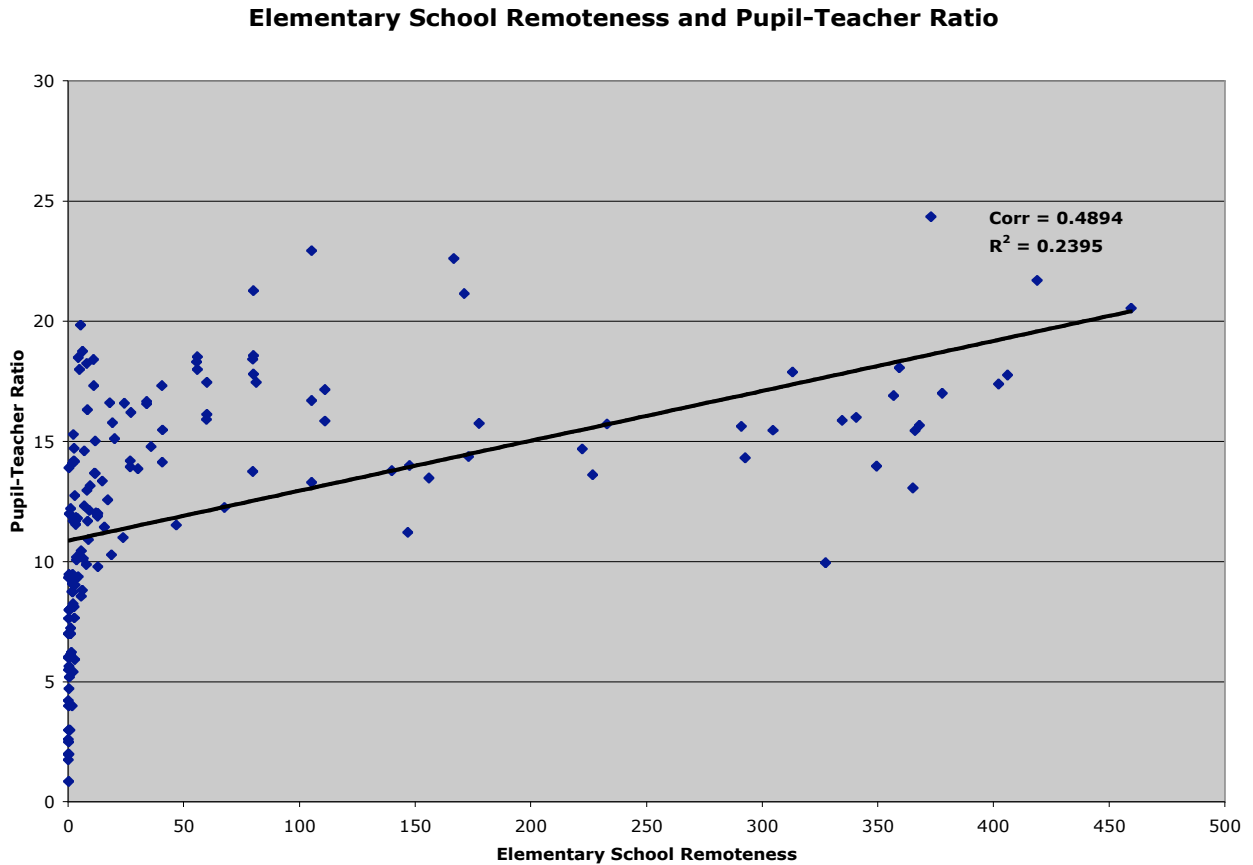
Though a linear relationship does not readily appear between pupil-teacher ratios and school size for middle schools and high schools, the number of teachers and other personnel at these schooling levels can be explained in a statistically significant way by district size, though to a much lesser degree than school size. In the final analysis of a cost-based funding model for small schools, district size was included as a control factor because of its cost factors and those cost factors associated with remoteness.

3. Remoteness

In collaboration with state geographic information systems experts, a “remoteness” variable was constructed by calculating the school-aged population (children under the age of 18) that resides around each school in the state. A variety of mileage thresholds were utilized (3-, 5-, 10-, and 20-mile), and all came back with startlingly similar results. When using the 3-mile radius, a positive

relationship emerges with pupil-teacher ratios at all three schooling levels. Figure 4-2 shows the plot between elementary school pupil-teacher ratios and the 3-mile remoteness variable.

Figure 4-2: Elementary School Remoteness and Pupil-Teacher Ratio

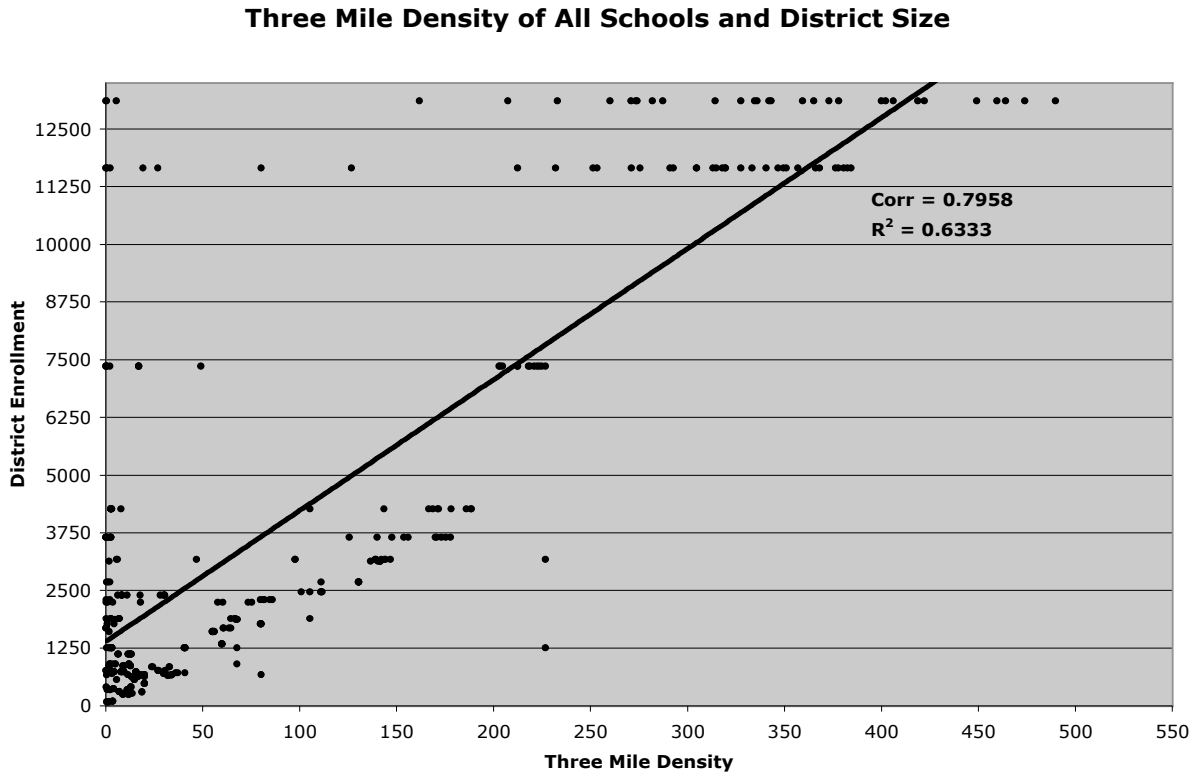


The correlation coefficient for elementary school pupil/teacher ratio and three-mile remoteness was 0.4894, statistically significant at a level greater than the five-percent threshold. The middle school correlation coefficient (0.2542) and high school correlation coefficient (0.5378) reflected similar graphical patterns. To be sure, remoteness, as we’ve defined it, had a good deal of predictive power in determining the number of teachers and other school personnel.

However, based on previous Wyoming Supreme Court rulings, settling on a mileage threshold to determine population density surrounding a school might be viewed by the court as arbitrary. Therefore, MAP determined to drop the remoteness variable from the final analysis in constructing a small-school funding formula.

To be sure, the cost-based factors associated with remoteness are still captured; further statistical analysis was performed on the cost-factor variables. District size, as measured by the number of students, is very highly correlated (0.7958) with the designated remoteness variable (Figure 4-3).

Figure 4-3: Remoteness of All Schools and District Size



Clearly, the larger districts, on average, have schools with higher population densities than do smaller districts. Though remoteness was dropped from the final analysis, the effects of remoteness are captured, to a large degree, by district size, a cost-factor variable that remained in the final analysis.

4. Co-located Status

Class sizes appeared to be smaller in those small schools with co-located status than did similarly sized small schools without co-located status during the site visits. Tables 4-5 through 4-7 substantiate the observations made during the site visits.

Table 4-5: Elementary School Pupil-Teacher Ratio by Co-location Status

Elementary Schools	
Co-located	Total
Not Co-located	14.19
Co-located	11.66
Grand Total	13.92

Table 4-6: Middle School Pupil-Teacher Ratio by Co-location Status

Middle Schools	
Co-located	Total
Not Co-located	14.48
Co-located	12.08
Grand Total	13.60

Table 4-7: High School Pupil-Teacher Ratio by Co-location Status

High Schools	
Co-located	Total
Not Co-located	14.52
Co-located	9.76
Grand Total	12.93

Consistently, across schooling levels, schools with co-location status had lower pupil-teacher ratios than schools without co-location status. That is, the way the Wyoming Department of Education has designated schools, each with its own school identification number, has had resource-allocation implications that, in MAP’s view, are inequitable in that resources (personnel and non-personnel) are being utilized in substantially different ways based on co-location status. Therefore, these cost factors were included in the final analysis of a cost-based funding model for small schools as a control factor.

5. At-Risk Student Population

The general hypothesis that increased resources would be provided to those schools with higher-than-average concentrations of at-risk students proved to be true. Though the pupil-teacher ratio in elementary schools showed a slight positive correlation (0.3175) with at-risk concentration, the middle school and high school pupil-teacher ratios showed negative pupil-teacher ratios, -0.2970 and -0.3244, respectively, as expected.

The positive correlation in elementary school pupil-teacher ratio can most likely be explained by the confounding effects of school size. That is, the more heavily impacted schools also tended to be larger small schools, so the increase in number of students outpaced the additional resources provided for at-risk purposes. Additionally, because at-risk funding is provided as part of the block grant to districts, there is no guarantee that the at-risk funding generated by a school is necessarily allocated to that school. In the end, across all schooling levels, the number of teachers and other personnel tended to increase as the concentrations of at-risk students increased in a school. Therefore, the at-risk concentrations of schools were included in the final analysis of a cost-based funding model for small schools as a control factor.

C. Final Cost Model

Using the combination of a historical perspective of the small-school funding formula, factors considered by other states, site visits to a wide variety of small schools across the state, and the availability of site-based personnel and non-personnel data, MAP analyzed potential cost factors as they relate to the operation of Wyoming small schools. From these analyses (cross-tabs, correlations, and simple regressions), MAP settled on four cost factors in determining a final cost-based funding model for small schools:

- School size (as measured by ADM)
- District size (as measured by ADM)
- Co-location status
- At-risk concentration of the school

The primary factor in determining personnel and non-personnel resources generated by schools is school size with the other variables (district size, co-location status, and at-risk concentration) included to control for cost variables associated with those variables.

Dropped from the final model is the variable constructed to measure school remoteness. Though remote schools exist in small and large districts, alike, the preponderance of small schools in large districts are not remote, whereas the small schools in small districts, on average, tend to be remote in nature. Therefore, district size serves as a proxy variable capturing the cost effects that may be associated with remoteness.¹⁴

The final functional form of the cost-based model to determine the number of personnel generated by a school is:

$$\text{PERSONNEL TYPE} = f(\text{School Size, District Size, Co-location, At-risk})$$

$$\text{NON-PERSONNEL COSTS} = f(\text{School Size, District Size, Co-location, At-risk})$$

Because the charge of the study was to determine a cost-based funding model for small schools, only the data from small schools was included in the regressions. To include non-small schools in the final analysis would consider factors not associated with small schools and would generate resource allocations modeled after the cost factors of all schools in the state, which would be inappropriate, given the charge.

The data utilized in the regression models were 2002-03 data provided by the Wyoming Department of Education. The availability of school-level data—first available in the 2002-03 school year—allowed for a more precise estimation of a cost-based funding

¹⁴ Even if remoteness could be included, bypassing the perceived arbitrary nature of setting the mileage threshold, the district size, and remoteness variables could not both be included in the same regression model because of the very high correlation between the two variables that would confound the regression results – a statistical situation known as multicollinearity.

model for small schools consistent with the personnel and non-personnel categories designated in the base elementary school, middle school, and high school prototypes; prototypes that were upheld by the Wyoming Supreme Court in *Campbell II*.

CHAPTER FIVE

Small School Allocations

A. Formula Output

Multiple regression analysis was performed for all personnel types detailed in the base prototypes and for non-personnel cost items as a whole for the three schooling levels.¹⁵ In particular, utilizing the specified regression models provides for allocations that more accurately reflect the growing economies of scale as the size of a school increases.

1. Personnel

The regression models were calculated separately for individual staffing categories, such as teachers, aides, and principals for each schooling level—elementary school, middle school, and high school. Table 5-1 shows the regressions calculated according to the personnel funded through the base prototypes.

Table 5-1: Personnel by School Level

PERSONNEL	ELEMENTARY	MIDDLE	HIGH
Teachers	X	X	X
Aides	X	X	X
Pupil Support	X	X	X
Library Media			
Certificated Librarian	X	X	X
Media Assistant		X	X
School Administration	X	X	X
Clerical/Data Entry	X	X	X

From these regressions, coefficients were estimated for the model intercept (base allocation for a school) and four cost factors. In all regressions, school size, as a cost factor, was statistically significant to a minimum of the ten-percent significance level.

Given these results, school size is the sole determinant of the number of personnel and the amount of non-personnel costs generated to any given school, holding the cost factors of district size, co-location status, and at-risk concentration constant. From the intercept and school size estimated coefficients, one can determine the number of each personnel and the amount of non-personnel costs to be allocated

¹⁵ The exact specification of the regression models is a double-log functional form where the natural logarithm of the dependent variable are regressed on the natural logarithm of school size, district size, and at-risk concentration, as well as the co-location dummy variable. Utilizing a double-log functional form is not as restrictive as an ordinary least squares (OLS)-specified functional form in that the double-log form assumes constant elasticity with variable slope while an OLS-form assumes constant slope and variable elasticity.

for a school of any given size (ADM) based on the type of small-school designation.

2. Non-Personnel Costs

Analyzing a year's worth of school-level non-personnel costs proved difficult as districts tended not to uniformly report costs to the state.¹⁶ In particular, there was tremendous variation in non-personnel expenditures, especially in the area of instructional equipment. This would be expected in that these costs are not necessarily an annual expense, rather a large expense on a less-frequent basis (two to five years). Therefore, some schools had large recorded costs associated with these expenditure categories, while many schools had no recorded costs. To overcome the variable expenditure nature of non-personnel costs, MAP consolidated all non-personnel cost items from the base prototypes (supplies and instructional materials, equipment, student activities, professional development, and assessment) and performed regression analysis utilizing composite non-personnel costs.

The elementary school and high school non-personnel regressions provided reliable results. Therefore, school size determines the level of non-personnel costs to be generated by the school and accrued to the district. However, the middle school regressions provided unreliable results. This was due to the combination of a new data system that provided large variations in data and with very few middle schools to conduct regression analysis. Because of the unreliable results from the middle school non-personnel cost regressions, the results from the high school non-personnel cost regressions were utilized to determine small-middle school non-personnel cost allocations. Specifically, middle school non-personnel costs are 59 percent of high school non-personnel costs at the base-prototype level (ADM of 300 students). Therefore, the same proportion of small school non-personnel costs from the small high school regressions table will be generated by small middle schools. That is, for any given small middle school enrollment, 59 percent of the small high school non-personnel costs adjustment for that enrollment level will be generated by the middle school.

B. School Designations

Every small school in Wyoming is classified into one of four adjustment classifications: elementary school, middle school, high school, and middle/high school. These four classifications determine the type of small-school adjustment generated by the school.

1. Elementary School

¹⁶ School-level expenditure data were first reported to the state for 2002-03. Because this is a new requirement, it is not surprising that the necessary levels of validity and reliability have not been achieved. It is reasonable to anticipate significant improvement in these data as school districts gain experience and as the Department of Education and Department of Audits work to ensure that all districts are following the same procedures.

Small schools are designated “Elementary School” for their small-school adjustment if:

- School configurations where grades K-8 are served, *and*
- ADM in grades K-5 is greater than or equal to 50 percent of total school ADM, *and*
- Total school ADM is less than 264 students.¹⁷

An “Elementary School”-designated small school derives the number of each personnel and the amount of non-personnel costs from the elementary school regression-output tables only based on their school size (total ADM).

2. Middle School

Small schools are designated “Middle School,” with an additional designation for minimum teacher allocations based on the enrollment characteristics, for their small-school adjustment if:

Middle School-Three Minimum

- School configurations of grades 6-8 or 7-9, *and*
- Total school ADM is less than 300;¹⁸ *or*

Middle School-One Minimum

- School configurations where grades K-8 are served, *and*
- ADM in grades 6-8 is greater than 50 percent of total school ADM, *and*
- Total school ADM is less than 300 students.

A “Middle School”-designated small school derives the number of each personnel and the amount of non-personnel costs from the middle school regression-output tables only based on their school size (total ADM).

3. High School

Small schools are designated “High School” for their small-school adjustment if:

¹⁷ ADM of 264 students is equal to the prototype enrollment, and thus, by definition, not a small school. All schools with ADM fewer than the prototype will receive some adjustment to compensate for diseconomies of scale.

¹⁸ The middle school prototype has an ADM of 300 students.

- School configurations where grades 9-12 are served, *and*
- Total school ADM is less than 600 students.¹⁹

A “High School”-designated small school derives the number of each personnel and the amount of non-personnel costs from the high school regression-output tables only based on their school size (total ADM).

4. Middle/High School

Small schools are designated “Middle/High School” for their small-school adjustments if:

- School configurations where grades 6-12 are served, *and*
- ADM in grades 6-8 is less than 300 students, *and*
- ADM in grades 9-12 is less than 600 students, *and*
- Total school ADM is less than 600 students.

A “Middle/High School”-designated small school derives the number of each personnel and the amount of non-personnel costs from the middle school regression-output tables based on their school size (total ADM) and the number of each personnel and the amount of non-personnel costs from the high school regression-output tables based on their school size (total ADM). That is, the “Middle/High School” would receive both the middle school and the high school small-school adjustments if the school served students that spanned grades 6-12 and whose total school ADM was less than 300 students.

C. Cost Adjustments

The regression equations included four independent cost-associated variables to estimate personnel and non-personnel allocations to small schools. School size was the dominant factor in explaining costs associated with small schools. Therefore, the number of personnel and amount of non-personnel allocations are determined by the regression coefficients for school size in addition to the regression intercept (base amount). The remaining regression variables are handled in two ways in allocating resources to small schools, adjusted or unadjusted.

1. Unadjusted Cost Factors

Personnel and non-personnel allocations are not adjusted by co-location status or at-risk concentration. These variables are included in the regressions to hold these factors constant. That is, the average small school is allocated personnel and non-

¹⁹ The high school prototype has an ADM of 600 students.

personnel items based on a variety of cost and non-cost factors. By including at-risk concentration, the regressions estimate the allocations based on average at-risk concentration, consistent with the formulations of the base prototypes. Also, the small-school allocations are not adjusted for at-risk concentration to avoid double payment—schools with higher-than-average concentrations of at-risk concentrations are already compensated for those costs elsewhere in the Wyoming Cost-Based Funding Model.

Small schools with co-location status have larger personnel allocations than similarly situated small schools that lack such status. Therefore, the co-location status dummy variable is included in the regressions to treat all similarly situated small schools identically and the estimated coefficient from the regressions are not utilized to further adjust allocations to maintain no advantage to small schools with co-location status.

2. Adjusted Cost Factors

District size was included in the regressions as a variable because of associated cost factors, namely, economies of scale, and as a proxy variable for school remoteness because of its high correlation with the remoteness variable shown to have its own cost implications—excluded from the final analysis. However, the estimated coefficients for district size from the regressions were mixed in terms of the statistical significance across personnel categories.

Though district size, as a regression variable, had mixed significance, there was little doubt that district size played a significant role in how small schools functioned. Based on site visits and through consultation with the advisory committee, MAP recommends that small schools in large districts—ADM greater than 2,346 students—generate adjustments for teachers (and associated substitute teachers), instructional aides, and clerical staff only.²⁰ Other personnel categories and non-personnel cost items would not accrue to the district. The rationale to exclude these personnel and non-personnel items was that large districts had the capability to redistribute personnel across schools in ways that small districts were unable to do. As for non-personnel costs, large districts also possessed the purchasing power of all of their schools to incorporate the costs of their small schools with no detrimental fiscal impact.

To further substantiate this argument, regressions were run on all Wyoming schools (small and non-small schools) and district size was statistically significant with a negative coefficient, i.e., larger districts need fewer allocations, more consistently across personnel categories and non-personnel allocations. The regression results, therefore, would suggest that larger districts would require fewer resources, even at the base prototypical level. Though this type of

²⁰ Large districts are defined as having ADM greater than 2,346 students based on the point where districts no longer receive any kind of small district adjustment within the Wyoming Cost-Based Funding Formula. This cut off was statistically derived based on actual cost characteristics of Wyoming school districts. For details, see MAP Report Ehlers, John, et al. *Small District Report*, MAP, January 2002.

adjustment may be considered in future recalibrations of the cost-based funding model, it is beyond the scope of this report.

D. Minimum Teacher Allocations

The personnel regressions provide the number of each personnel category to be allocated to small schools dependent on the configuration of the school and the size of that school. However, at the lowest end of the enrollment spectrum, the regression formulas do not provide enough instructional staff, i.e., teachers, to effectively deliver the basket of services as required by the *Campbell I* decision. In consultation with the advisory committee and, upon review of the actual staffing patterns of very small schools, MAP recommends that a minimum number of teachers be provided to the different school classifications.

1. Elementary School

For elementary schools, where total school ADM does not generate one (1.0) full-time equivalent (FTE) teacher from the elementary school regression-output tables—three or fewer students—the small schools funding formula would guarantee one (1.0) FTE teacher. All other staffing categories and non-personnel costs do not generate a minimum.

2. Middle School

For middle schools, two separate teacher-minimum classifications exist to account for the difference in educational programs offered based on the grade configurations and the students being served.

The *Middle School-One Minimum* classification applies to those schools that serve students in the grade bands of elementary school (grades K-5) and middle school (grades 6-8) and where middle school ADM is greater than 50 percent of total ADM. Based on site visits, evaluation of actual staffing patterns, and in consultation of the advisory committee, the educational programs provided in these schools tend to more resemble the educational programs of elementary schools. That is, these schools tend not to have differentiated classroom settings based on curricular subject as most middle schools or junior high schools would have to serve their students. Therefore, because the educational program and setting more resembles an undifferentiated classroom setting, and where total school enrollment does not generate one (1.0) FTE teacher from the middle school regression-output tables—eight or fewer students—the small schools funding formula would guarantee one (1.0) FTE teacher. All other staffing categories and non-personnel costs do not generate a minimum.

The *Middle School-Three Minimum* classification applies to those schools that serve students in the grade bands of grades 6-8 or grades 7-9 as stand-alone (though the school may have co-location status) middle schools or junior high schools. The primary characteristic of these schools is the educational program

setting where curricular subjects are typically taught in differentiated classrooms and by differentiated staff with subject-matter expertise. Because of this differentiated classroom setting, a three-teacher minimum was recommended by the advisory committee and substantiated by site-visit information and actual staffing patterns. Therefore, where total school ADM does not generate three (3.0) FTE teachers from the middle school regression-output tables—33 or fewer students—the funding formula would guarantee three (3.0) FTE teachers. All other staffing categories and non-personnel costs do not generate a minimum.

3. High School

In consultation with the advisory committee and substantiated by site-visit information and actual staffing patterns, MAP recommends a minimum of six (6.0) FTE teachers be provided to small high schools in order to effectively deliver the basket of services. For high schools, where total school ADM does not generate six (6.0) full-time equivalent (FTE) teachers from the high school regression-output tables – 50 or fewer students – the small schools-funding formula would guarantee six (6.0) FTE teachers. All other staffing categories and non-personnel costs do not generate a minimum.²¹

4. Middle/High School

For those schools that serve students spanning the middle school and high school grade-spans, grades 6-8 and grades 9-12, respectively, typically found in Wyoming to be secondary schools with grades 7-12 served in a common building, and that have total ADM that make it eligible to generate both the middle school small-school adjustment and the high school small-school adjustment, the three-teacher minimum middle school-guarantee and the six-teacher minimum high school-guarantee would apply. For both minimum provisions to take effect, the total school ADM would have to be 33 students or fewer. All other staffing categories and non-personnel costs do not generate a minimum for either the middle-school portion of the school or the high-school portion of the school.

E. Utilities

Utilities costs were analyzed to determine if funding adjustments should be made for small schools. Mentioned earlier, the 2002-03 school year that this data analysis is based upon was the first year that these cost items were to be identified to the school level. Data on utilities costs, however, were of very poor quality with one district having no utilities costs attributed to any of its schools.

²¹ Members of the Advisory Committee pointed out that it might not be possible to deliver the “basket” to 50 students with 6 teachers if that high school was located sufficiently far from a middle or junior high school in which case it would be impossible to share staff between the two schools. It was determined that nowhere in Wyoming did a high school meeting these conditions exist, i.e., in every case, high schools of 50 or fewer students are located in close proximity (frequently on the same campus) to a middle or junior high school.

Additionally, funding for maintenance and operations (M&O) was recalibrated for the 2001-02 school year.²² That recalibration, however, is based on the combination of a per-ADM, square-footage allowance and on actual square footage within the district. Upon analysis, MAP was unable to discern if, and how, small schools were accommodated in the new M&O formula.

Based on the combination of poor school-level utilities data and the inability to discern how the revised M&O formula handles small schools, MAP recommends that the existing utilities formula for small schools be utilized to fund small schools, according to their above small-school classification, and that a further study of maintenance and operations be undertaken to determine the M&O needs, particularly utilities, of small schools. MAP recommends that utilities allocations be provided to all small schools regardless of district size.

²² MGT America, Inc. *Routine Maintenance Funding Formula for State of Wyoming Public Schools*, MGT of America, October 1999.

CHAPTER SIX

Small School Prototypes

A. Prototypes Development

The base prototypes are set at fixed ADM levels of 264, 300, and 600 students for the three schooling levels, respectively.²³ The small schools formulas for the three levels, however, provide a continuum of ADM-based prototypes. That is, for any given ADM level, staffing levels and non-personnel costs are derived from the regression-output tables. To assist advisory committee members and to illustrate the elegance of the regression results, ADM levels were chosen for all three schooling levels to show the personnel and non-personnel allocations.

B. Elementary School Small School Prototypes

The base elementary school prototype is set at 264 students based on a half-day Kindergarten program. To illustrate how the elementary school regression-output tables allocate resources, three elementary small-school prototypes were “developed” at ADM levels of 33, 66, and 132 students. These ADM levels were chosen because of their relation to the base prototype; 132 students represents one-half of the base prototype, 66 students represents one-fourth of the base prototype, and 33 students represents one-eighth of the base prototype. Table 6-1 shows the allocations associated with each of these ADM levels.

²³ These personnel allocations in the base prototypes have been unchanged since the Cost-Based Block Grant model was originally proposed in 1997.

Table 6-1: Illustrative Elementary School Prototypes

ELEMENTARY SCHOOL Description	33 STUDENTS Units	66 STUDENTS Units	132 STUDENTS Units	264 STUDENTS Units
A. Personnel				
1. Teachers	4.47	7.04	11.10	17.50
3. Substitute Teachers(5%)	0.22	0.35	0.56	0.88
4. Aides (FTE)	0.47	0.76	1.24	2.00
5. Pupil Support	0.25	0.39	0.63	1.00
6. Library Media				
Certificated Librarian	0.31	0.45	0.66	1.00
Media Assistant				
Tech. Asst.				
7. School Administration	0.27	0.40	0.58	1.00
8. Clerical/Data Entry	1.14	1.37	1.66	2.00
Non-Personnel Costs	\$ 30,628.13	\$ 52,375.74	\$ 89,565.34	\$ 153,161.54
TOTAL COSTS	\$ 286,851.22	\$ 439,834.21	\$ 680,267.16	\$ 1,072,311.08

Table 6-1 illustrates how the regressions recognize the increasing economies of scale as ADM increases. That is, fewer additional teachers and staff members are allocated as ADM increases. Looked at from a different perspective, if there were constant economies of scale, the personnel and non-personnel allocations at each intermediate prototype would be proportional to the base prototype. That is, at 132 students, exactly half of the base-prototype allocations would be expected. However, more than half of the base prototype levels of all personnel and non-personnel items are provided for at the 132-student level. In fact, funding for 25 percent of base-prototype teachers (4.47 of 17.5) is provided for at the 33-student level (12.5 percent of the base-prototype ADM level).

C. Middle School Small School Prototypes

The base middle school prototype is set at 300 students. To illustrate how the middle school regression-output tables allocate resources, two intermediate small-school prototypes were “developed” at ADM levels of 50 and 150 students. These ADM levels were chosen because of their relation to the base prototype and based on the distribution of middle school sizes in the state. The 150-student level was chosen because it represents one-half of the base prototype. The 50-student level was chosen because approximately 20 percent of middle schools have ADM levels of 50 or fewer students. Table 6-2 shows the allocations associated with each of these ADM levels.

Table 6-2: Illustrative Middle School Prototypes

MIDDLE SCHOOL Description	50 STUDENTS Units	150 STUDENTS Units	300 STUDENTS Units
A. Personnel			
1. Teachers	4.17	10.11	17.67
3. Substitute Teachers(5%)	0.21	0.51	0.88
4. Aides (FTE)	0.50	1.17	2.00
5. Pupil Support	0.66	1.24	2.00
6. Library Media			
Certificated Librarian	0.41	0.71	1.00
Media Assistant	0.65	1.08	1.50
Tech. Asst.			
7. School Administration	0.59	0.81	1.00
8. Clerical/Data Entry	0.75	1.37	2.00
Non-Personnel Costs	\$ 46,703.94	\$ 113,102.94	\$ 197,618.17
TOTAL COSTS	\$ 337,320.34	\$ 720,873.41	\$ 1,190,784.40

As with the elementary school prototypes, Table 6-2 shows how the allocation formulas recognize the increasing economies of scale as ADM levels increase towards the base prototype. At 150 students, funding for 57 percent of base teachers is provided through the middle school regression-output tables. At 50 students, one-sixth of the base prototype, funding for nearly 24 percent of base-prototype teachers is provided.

D. High School Small School Prototypes

The base high school prototype is set at 600 students. To illustrate how the high school regression-output tables allocate resources, three intermediate small-school prototypes were “developed” at ADM levels of 50, 150, and 300 students. These ADM levels, were chosen, much like the middle school prototypes, because of their relation to the base prototype and based on the distribution of high school sizes in the state. The 300-student level was chosen because it represents one-half the size of the base prototype. The 150-student level represents, approximately, the median-sized high school in the state—one-half of high schools larger and one-half of high schools smaller. The 50-student level was chosen because approximately 20 percent of high schools have ADM levels with 50 students or fewer. Table 6-3 shows the allocations associated with each of these ADM levels.

Table 6-3: Illustrative High School Prototypes

HIGH SCHOOL Description	50 STUDENTS Units	150 STUDENTS Units	300 STUDENTS Units	600 STUDENTS Units
A. Personnel				
1. Teachers	6.00	12.74	20.60	33.33
3. Substitute Teachers(5%)	0.30	0.64	1.03	1.67
4. Aides (FTE)	0.83	1.83	3.03	5.00
5. Pupil Support	1.09	1.93	2.78	4.00
6. Library Media				
Certificated Librarian	0.24	0.45	0.67	1.00
Media Assistant	0.86	1.25	1.58	2.00
Tech. Asst.				
7. School Administration	0.45	0.87	1.32	2.00
8. Clerical/Data Entry	0.72	1.70	2.92	5.00
Non-Personnel Costs	\$ 78,554.22	\$ 190,234.77	\$ 332,386.13	\$ 580,758.91
TOTAL COSTS	\$ 447,850.31	\$ 946,549.97	\$ 1,531,391.33	\$ 2,481,091.62

At 300 students, one-half the base prototype, 62 percent of base teachers are generated through the small school allocation formulas. With 25 percent of base-prototype ADM—150 students—38 percent of base teachers are generated. Finally, the 50-student high school—eight percent of the base prototype—would generate 18 percent of base teachers. Once again, the regression formulas recognize the need for a disproportionate level of resources at the lower ADM levels with smaller increases in resources allocated as ADM increases to the base-prototype level.

E. Costing Out of Prototypes

Tables 6-1 through 6-3 show how personnel and non-personnel costs are “front-loaded.” That is, a disproportionate level of all resources are provided at the lower ADM levels with smaller increases in resources allocated as ADM increases to the respective base-prototype levels. This reflects the initial, high costs associated with providing the full basket of services to the first student and how those costs, on a per-pupil basis, decrease as more students are added to a school.

The last row in each table shows the “TOTAL COSTS” associated with each prototype at each schooling level. These total costs are computed by multiplying the number of each personnel by their respective compensation values found in the recalibrated Wyoming Cost-Based Funding Model (2001-02).²⁴ The elementary school total costs at each of the illustrative prototypes are 27 percent, 41 percent, and 63 percent of total costs at the base prototype. The proportions of students at each of these levels are 13 percent, 25 percent,

²⁴ The “total costs” at each of the base-prototype ADM levels correspond to the costs found in the MAP Report Hayward, Gerald, et al. *Prototype Remodel: A Technical Report*, MAP, October 2003.

and 50 percent, respectively. The illustrative middle school prototypes had total costs that were 28 percent and 61 percent of total costs at the base prototype with 17 percent and 50 percent of ADM, respectively. Finally, the illustrative high school prototypes had total costs that were 18 percent, 38 percent, and 62 percent of total costs at the base prototype with eight percent, 25 percent, and 50 percent of ADM, respectively. Across the board, total costs generated by the regressions-output tables are disproportionate to the ADM.

F. Financial Implications

Based on the recommended allocation formulas from the regression-output tables, small-school definitions and classifications, and cost adjustments, fiscal year 2002 (ADM based on three-year rolling averages of 2001, 2000, and 1999) would have seen a funding increase of \$17,485,420.²⁵ This funding increase should be compared to the small-school adjustment allocations to districts based on formula allocations and not on any hold-harmless provisions relating to small schools or funding as a whole. Appendix E provides a district-by-district comparison of formula allocations.

²⁵ The 2002 fiscal year was used as the comparative year because the recalibrated small-schools formula took effect that year and was funded in 2002-2003. Making comparisons to the “base year” of 2002 eliminates any cost adjustments that may have been made to salaries or non-personnel costs. These cost estimates do not take into account recommended changes to funding of schools with co-location status.

CHAPTER SEVEN

Issues

In this chapter, MAP discusses four issues involving special circumstances: alternative schools, charter schools, co-located schools, and small schools in large districts.

A. Alternative Schools

1. Description:

Alternative high schools in Wyoming are established to do what their name implies—offer an alternative path to a high school diploma for students who are having trouble achieving in a more traditional setting. Wyoming allows Alternative High Schools to enroll students in grades 8-12. They are currently funded at the small high school rate. There are a little over a dozen such schools in Wyoming and most are quite small, with all but a few enrolling 75 or fewer students. The largest, Triumph High School in Laramie #1, enrolls 350 students. The smallest, Shoshone Learning Center, reports serving fewer than ten students. Almost all report that they are accredited both by the regional accrediting agency, North Central Accreditation, and by the state. They offer a variety of educational approaches, including individual educational plans, distance learning; and the scope of their offerings ranges from all the courses required to get a high school diploma to a focus on the basics. Some have the explicit goal of returning students to a regular high school, while others view it as an alternative path to a high school diploma. With such diversity of purpose, size, and variation of approaches, it's difficult to create a funding mechanism that provides adequate and equitable funding.

2. Proposed Funding Arrangement

MAP recommends the following:

- All students in an alternative school are considered, for funding purposes, as high school students (that means counting 8th graders as high school students for the purposes of determining per pupil funding levels);
- Alternative high schools are eligible for the small high school adjustment, which means that many existing alternative schools would be eligible for the minimum numbers of teachers in the small high school formula—six;
- Eligibility for full small high school funding is limited to those alternative high schools that meet the following criteria: the alternative high school must be:
 - Accredited by the regional accrediting agency,

- Approved by the state,
- Has authority to issue and, in fact, issues its own diplomas, and
- Offers, through on-site staff, the full basket of goods to its students, including, but not limited to, mathematics, language arts, science, social studies, physical education, vocational education, etc.

To the extent that the alternative school doesn't provide the full basket, for example, several alternative schools reported that vocational education was not offered in the alternative school but offered instead by the Community College or a nearby high school; they would receive a pro-rata share of the small-school adjustment. For example, if a student were offered on-site staff, 50 percent of the full basket of high school courses specified in WS 21-9-101, the school would be eligible for 50 percent of the small high school allowance for a school of its size.

The purpose here is to fund alternative high schools on the same basis as a regular small high school, by holding alternative high schools to the same standard (providing the full basket of goods for their students). We recommend that the Wyoming Department of Education draw up regulations to determine the appropriate method of pro-rating the dollar amounts.²⁶

MAP considered creating a different funding model for alternative schools and also considered several alternative approaches, including funding students in schools that did not offer the full array of courses at the regular high school prototypical rate. In addition, consideration was given to requiring that funds appropriated for alternative schools be spent only on alternative schools, but on the strong advice of our advisory committee chose this option instead. Strong leadership by the Wyoming Department of Education is needed to insure that funding abuses will not occur and that alternative high schools are established for the laudable purposes intended, not merely to generate additional funds.

B. Charter Schools

1. Description

Charter schools are intended to create additional choices for parent and students within the public school system and to provide some relief from existing local and

²⁶ Around the nation alternative schools funding formulas have been the source of considerable abuse. It is therefore incumbent on the legislature and Department of Education to clearly specify the conditions under which such schools are funded and operated. Although the following approach was not recommended by the Advisory Committee, the legislature may consider adding the following provision:

- Alternative high schools that employed fewer than six full time equivalent (FTE) teachers would receive funding only for the actual FTE number of teachers employed at that school and providing services to students enrolled therein.

state rules and regulations. Districts can authorize the establishment of charter schools. The state provides funds to the district, which, in turn, negotiates an agreement with the charter school about what services the district will continue to provide and at what cost. Once the budget is determined, the charter schools operate within limits as an independent entity. Charter schools often feature a unifying theme, whether it's a particular pedagogical approach, an academic emphasis, or career focus of some combination. Currently only one charter school has been approved in Wyoming.

2. Proposed Funding Arrangement

MAP proposes that charter schools be funded under the small school-funding formula. There is no identifiable need to establish a separate formula for charter schools. Since only one such school exists in Wyoming, there is currently insufficient information about the costs incurred by charter schools that might cause them to be treated differently than other small schools. As additional charter schools are eventually approved and more data collected, this policy should be reviewed.

C. Co-located Schools

1. Description

Issues related to co-located schools have permeated school finance discussions relating to the small-school adjustment. It is a problem apparently unique to Wyoming. MAP has found no comparable funding arrangement elsewhere in the country. Co-located schools occur when more than one school defined as having its own school identification number occupies the same or adjacent facilities. Historically, these schools, although they operate as a single unit, have been treated for small school-funding purposes as two or three separate schools. For example, a co-located school; serving grades K-8 and an ADM of 100 students, might be deemed by the state as two separate schools for apportionment purposes, one school grades K-5 with ADM of 65 students and another school grades 6-8 also with an ADM of 35 students. The co-located school would generate substantially more revenue per pupil, since the per-ADM amount for a school of 65 and 35 students would be larger than for a single school of 100 students. A traditional school grades K-8 operating under similar circumstances would still be eligible for a small-school adjustment, but the amount per pupil would be less, creating a discrepancy that may be deemed impermissible by the courts. The legislature, as we recount in Chapter 1, has taken several actions to address this issue but so far the solutions have proved elusive, either politically or judicially.

2. Proposed Funding Arrangement

Resources are greater, everything else being equal, for co-located schools, Chapter 4 details the allocation of funds for both personnel and non-personnel categories reflect the discrepancy. Because resources, both personnel and non-

personnel, are highly influenced by the co-location status of the school, it is important that co-location be included as a control variable in the finance formula. MAP recommends that similar language that once existed in statute, but was removed, be reintroduced. That language requires a school to consist of at least three grades (except in those rare and remote cases when there are not enough students to constitute three grades). That still leaves the question of the definition of a school. In the past, MAP has made several recommendations on this front. They have proven to be either politically unpalatable, or the ones that may be politically feasible, have been deemed arbitrary by the courts.

There has been considerable debate in Wyoming over the definition of a small school. As pointed out by MAP, the existence of co-located schools has complicated the determination of what constitutes a school for the purposes of the small-school adjustment. At the present time, despite the probability that co-located schools do not suffer from the same diseconomies as do schools that are truly free-standing schools, the state's current formula provides an adjustment for small schools regardless of co-location. In this analysis, we assume any school identified as having an enrollment that qualifies for the adjustment will receive that adjustment. This, of course, inflates the true cost of small schools, by over-funding some that do not actually experience diseconomies. Therefore, we recommend that the legislature reconsider a variation of MAP's earlier proposed definition of funding provisions relating to co-located schools:

A co-located school shall be considered a single school, for funding purposes, if it has 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.

If the legislature agrees with this determination of when a co-located school will be treated as a single school, the model we have developed will need to be modified to reflect that determination. The effect of this would be to reduce the amount of the adjustment for some co-located schools.

In actuality, because of the tremendous variation that exists among Wyoming schools, it is virtually impossible to write specific legislation that sufficiently encompasses all situations. For some conditions there is no good substitute for leadership and professional judgment. The Wyoming Department of Education has been charged with assuring that no new small schools will be identified unless they can be thoroughly justified for educational purposes. They have also been charged and recently become active in pursuing whether certain schools continue to be viable. If the above definition is unacceptable, the legislature should direct the State Board of Education and the School Facilities Commission to be jointly charged with defining clearly when a co-located school should be treated as a single school for funding purposes. This determination has implications for school

facilities and therefore it is incumbent that the two agencies responsible for education programs and school facilities be jointly charged with this issue.

D. Small Schools in Large Districts

1. Description

The results of MAP site visits suggested, and data analysis later confirmed, that small schools in small districts, on average, cost more to operate than small schools in larger districts. Most importantly, class sizes were generally smaller in schools in districts eligible for the small-district adjustment. Through site visits, AP determined that larger districts were more able to provide assistance to their schools, e.g., by making it easier to share specialized staff, by sharing professional development activities and generating other savings that accrue because of economies of scale.

2. Proposed Funding Arrangement

MAP recommends that the funding arrangement for small schools located in larger districts be adjusted to reflect these lesser costs. Under the MAP proposed formula, small schools in large districts (those district with ADM greater than 2,346 students) would be provided an adjustment for teachers, substitutes, instructional aides, clerical, staff, and utilities. The advisory committee made several helpful suggestions on this topic. As a result of their advice, clerical personnel and utilities were added to the categories eligible for additional funds.

CHAPTER EIGHT

Summary of Recommendations and Conclusion

Small schools pervade the public education system in Wyoming. From the smallest school districts to the largest school districts in the state, small schools exist and the costs of providing the basket of services to the students that attend these schools are higher, on a per-ADM basis, than schools of prototypical size and larger. MAP reviewed the history of small-school funding in Wyoming, conducted visits to small schools across the state, and conducted prima facie data analysis to determine the cost factors that affect small schools in Wyoming.

A. Summary of Recommendations

Though previous iterations of recommendations of how to fund small schools were based on the best-available data at the time, the availability of school-level personnel allocations and non-personnel costs data provided the opportunity to conduct a more-precise analysis of small school cost factors. From these analyses, MAP determined that the primary cost factors affecting Wyoming small schools were:

- School size as measured by ADM,
- District size as measured by ADM,
- Co-location status of schools, and
- At-risk student concentrations of schools.

The availability of school-level data and the determination of these primary cost factors allowed MAP to develop a more-accurate set of funding formulas that directly reflect the costs associated with providing the basket in a small-school setting. Personnel generated by a small school come from a series of regressions performed on each personnel category, separately, and on non-personnel cost items, as a whole, that correspond to the base prototypes at each schooling level. Unlike previous iterations of small-school adjustments, the recommended allocation formulas in this report provide a continuum of prototypes for every level of school size (ADM). That is, each schooling level has regression-output tables for all personnel and non-personnel cost items associated with the cost items found in the respective base prototypes.

Based on the availability of better data, the calculation of more-accurate funding formulas, and the advice of the advisory committee, MAP proposes the following set of recommendations as to how those allocation formulas will be applied.

1. Small School Classifications

Based on the site visits and consultation with the advisory committee, small schools are classified into four general categories to determine what type of small-school adjustment is generated: Elementary School, Middle School, High School, or Middle and High School. These general categories reflect the types of educational programs and educational settings that exist in Wyoming small schools. The funding formulas associated with each category reflect these small school educational strategies.

2. Cost Factor Adjustments

In consultation with the advisory committee and based on information gathered through the site visits, MAP recommends that small schools in large districts—those districts with ADM greater than 2,346 students—be allocated the funding associated with teachers (and associated substitute teachers), instructional aides, and clerical staff. Large districts, MAP and the advisory committee determined, were able to take advantage of economies of scale associated with their large size (based on ADM) that overcame most diseconomies of scale realized by small schools. Large districts were able to reallocate non-teacher personnel and were able to take advantage of their greater purchasing power of non-personnel items to provide the full basket of services in their small schools without additional funding adjustments.

3. Teacher Minimums

In consultation with the advisory committee and based on site-visit information, and analysis of staffing patterns in Wyoming schools, a minimum number of teachers are recommended for small schools in the different categories of small schools based on the total ADM of the school. Small schools determined to be elementary schools will generate a minimum of one full-time equivalent (FTE) teacher. Small schools determined to be middle schools would generate a minimum of one FTE teacher if its grade-level characteristics would not suggest a differentiated middle school or junior high school curricular program whereas a stand-alone middle school would generate a minimum of three FTE teachers. A small high school would generate a minimum of six FTE teachers with special provisions applied to alternative schools. The middle/high school would be eligible for the middle school-three teacher minimum and the high school-six teacher minimum based on the total ADM of the school.

4. Utilities

School districts were tasked with allocating personnel and non-personnel costs to individual sites starting in 2002-03. However, with any transition in data collection and reporting systems, some data elements reported by districts are less reliable and valid than others. Utilities data were inconsistent with some schools having reported zero for their utilities. Additionally, the implementation of a new

funding formula for maintenance and operations moved away from direct funding of M&O staff to a square footage-ADM-driven system. MAP was unable to discern if small schools were adversely affected given this change in formula. Given the poor quality of the data and the ambiguity of the M&O formula that funds items such as utilities, MAP recommends that further study be conducted to investigate utilities costs in small schools. In the interim, MAP recommends that the current formula for utilities be used to fund small schools according to their small school classification. Additionally, MAP recommends, with the advice of the advisory committee, that all the utilities adjustment for small schools be allocated to districts regardless of district size.

5. Alternative Schools

MAP was charged with investigating costs associated with all small schools, including small alternative schools. MAP recommends funding alternative schools as small high schools with the following provisions:

- All students considered high school students; currently, eighth-grade students are included in alternative school ADM counts, but should be treated as if they were high school-ADM; and
- Eligibility for the full, small-school adjustment be limited to those alternative schools that are:
 - Accredited by the regional accrediting agency,
 - Approved by the state,
 - Diploma-granting high schools, and
 - Offer the full basket of services to its students within the alternative school building.

For those alternative schools that do not offer the full basket of services, the alternative high school will generate the amount of small, high school-adjustment proportional to the amount of the basket that is provided by the alternative school, e.g., an alternative school with ADM of 200 students that provides 50 percent of the basket would generate 50 percent of the small-school adjustment for a high school of 200 students.

6. Charter Schools

MAP recommends that charter schools generate funding under the same guidelines as other small schools in the state. With only one charter school in existence at the time of this study, insufficient costs data and information was available to warrant a different funding scheme for charter schools.

7. Co-location Status Schools

The inequitable funding scenarios associated with small schools with co-location status compared to similarly situated small schools was clear when pupil-staff ratios were compared between small schools of each type. MAP recommends that co-located schools be considered a single school for funding purposes if one or more buildings that contain one or more grades share at least three of the following facilities with another school: library, cafeteria, administrative office, or heating and ventilation (HVAC) system.

B. Conclusion

The funding formulas developed with site-level data provided MAP with the ability to construct cost-based allocation formulas for small schools to fully deliver the required basket of services. MAP's recommended funding formulas for each schooling level generate personnel and non-personnel costs that factor in the varying economies of scale at different school sizes (ADM), rather than having a purely linear allocation formula with no economies-of-scale assumed. Through the combination of site visits, analysis of small schools-data, and consultations with the advisory committee, these cost-based allocation formulas for personnel and non-personnel costs, along with the eligibility provisions, provide for an equitable funding scheme that treats similarly situated schools in an equal manner and provides the necessary resources for districts to deliver the full basket of services.

The costs of implementing the funding formulas and the provisions associated with defining small school-funding eligibility as laid out in this report would total an additional \$17,485,420 to the small schools funding from the 2002 base year.²⁷ Total small school-adjustment funding within the Wyoming Cost-Based Funding Model would have been \$42,377,129 for the 2002 base year.

²⁷ As annotated earlier in this report, the total additional funding does not incorporate changes to small schools with co-location status.

APPENDIX A

Small School/Small District Adjustments to the Education Resource Block Grant School Finance Model (By Mary Byrnes, LSO)

1997 MAP Cost of Education Study

Reference: "A Proposed Cost-Based Block Grant Model for Wyoming School Finance,"
April 1997.

- Proposed additional resources be available to "necessary" small schools or those schools which a district has no choice but to operate;
- Suggested application of additional resources to elementary or middle schools with 200 or less ADM enrolled in grades K through 8 with a majority of students who would otherwise be transported for more than one hour (90 minutes for middle school students) and for schools with K-8 programs within the same building or multiple buildings located within a quarter-mile radius (hereafter termed quarter mile rule);
- Proposed additional resources for high schools with 400 or less ADM enrolled in grades 9 through 12 with a majority of students who would otherwise be transported for more than two hours daily, subject to quarter mile rule.
- PROPOSED COMPUTATION:
 1. Necessary small elementary school adjustment (MAP combined elementary and middle schools into one K-8 model) provided specific dollar amounts for ADM ranges of 1-10, 11-20 and 21-30 (based upon number of teachers allotted for school size), with ADM 31-199 provided graduated amount until 200 ADM reached (up to the elementary prototypical amount per ADM). One teacher schools proposed to be reimbursed at lesser of actual costs or formula generated amount and small-school adjustment tied to employment of additional teachers;
 2. Necessary small high school adjustment provided specific dollar amounts per ADM ranges of 1-16, 17-32 and 22-48 (based upon number of teachers allotted for school size), with ADM 49-399 provided graduated amount until 400 reached (up to the high school prototypical amount per ADM);
 3. Under proposed model, each student generated appropriate prototypical dollar amount, to which was added the difference between the prototypical-generated amount and the small school adjustment amount.

1997 Special Session Responding to *Campbell I*

Reference: 1997 Sp Sess Laws, Ch 3, Section 303.

- Defined necessary small elementary school as 200 or fewer ADM in grades K through 8 and necessary small high school as 400 or fewer ADM in grades 9 through 12. Imposed quarter mile rule and additionally, imposed a five mile boundary around municipalities to restrict grade levels to single school for purposes of necessary small school determination;
- Implementation of necessary small-school adjustment delayed until 1998-1999 school year and following additional study.

December 31, 1997 District Court Order

Reference: District court of the First Judicial District, Findings of Fact, Conclusions of Law and Order, December 31, 1997, No. 129-59.

- Written order pertaining to school finance issued December 31, 1997, following an oral order issued on completion of trial (December 9, 1997);
- District Court ruling on small schools:
 1. Small-school adjustment computation was not cost based and the state failed to show that the basket could be delivered under the adjustment;
 2. Definition of small school deficient to the extent it includes criterion based upon 5-mile limitation outside boundary of municipality.
- Continuance of the principal school finance case was subsequently postponed until conclusion of the 1999 Legislative Session.

1998 MAP Small School Study

Reference: Wyoming Education Finance Issues: Small Schools Report, March 1998.

- Fourteen Working Groups, comprised of school district representatives, State Department of Education staff and LSO, were established following completion of the 1997 Special Session to focus on various school finance issues raised by the April 1977 MAP Cost of Education Study, the legislature and the Court. One Working Group focused on small schools and worked with MAP in its 1998 Small School Study efforts;
- STUDY FINDINGS:
 1. Retain small-school adjustment proposed in April 1997 report;

2. Permit small schools existing as of the date of the 1998 report, enrolling 200 ADM or less in grades K-8 and 400 ADM or less in grades 9-12, to qualify for small-school adjustment, subject to periodic reexamination ensuring operating costs are not excessive, maintenance of accreditation, etc.;
3. For small schools created thereafter, develop small school eligibility criteria accounting for school enrollment capacity, distance to existing schools, student transportation time and new school capacity to deliver basket;
4. Modify small-school adjustment for unusually small elementary schools (less than 30) and for unusually small high schools (less than 48):
 - A. Increase prototypical amount by actual costs of additional teachers, with incremental adjustments made on a per-ADM basis;
 - B. Reimburse unusually small schools for actual costs up to the full amount computed;
 - C. Increase reporting requirements for monitoring expenditures.
5. Reimburse small elementary and high schools for actual utility costs and actual costs for food services;
6. Establish criteria for small school districts by which districts meeting criteria would be eligible for added financial resources based upon the fact the proportion of schools which qualify as small or the proportion of students enrolled qualify as small was sufficient to impact entire operational costs of the district. Initially, proposed 500 district ADM or 100% of enrollment in small schools.

1998 Special Session

Reference: 1998 Sp Sess Laws, Chapter 2, Sections 201-203.

- Retained small-school adjustment developed pursuant to 1997 MAP recommendations;
- Added unusually small elementary school and unusually small high school adjustments per MAP recommendation;
- Added adjustment for utilities and food service based upon actual cost per MAP recommendation;
- In addition to small elementary and high school ADM thresholds for small-school adjustment qualification, imposed required enrollment levels within the school area for three consecutive school years and required schools to have students enrolled in three consecutive grades within the appropriate elementary or high school grade band;
- Excluded charter and alternative schools from qualification;

- Eliminated five-mile municipality limitation but maintained quarter mile rule;
- Grandfathered schools existing prior to July 1, 1998, which qualified for small-school adjustment, but required state superintendent's approval of any modification to grade configuration which differed from that existing on July 1, 1998;
- Required schools established after July 1, 1998, to verify school existence represents most cost effective means to provide educational services, extraordinary circumstances require school existence or school existence prevents excessive student transportation requirements. In addition to meeting statutory criteria, required districts to verify school is not being created for purposes of receiving additional small-school adjustment revenues;
- After July 1, 1999, state superintendent required to annually identify small schools experiencing enrollments of less than 75% of average ADM for that school during the two preceding school years and following review of applicable school district report on necessity of school, approve or deny adjustment or work with district in developing three-year plan for phasing school out of small school qualification.

1999 General Session

Reference: 1999 Laws, Ch 110, Sections 202, 208 and 210.

- Eliminated quarter mile rule and grade configuration requirements from small-school adjustment eligibility criteria over a three-year period, grandfathered small schools existing at that time for purposes of small-school adjustment eligibility and subjected small schools established on and after July 1, 1999, to modified eligibility requirements phased out during the three year period;
- Clarified utility and food service reimbursement application to actual expenditures during prior school year, and added reimbursement for prior year student activity expenditures;
- Eliminated exclusion of alternative and charter schools from small-schools adjustment;
- Added adjustment for small school districts with 1350 ADM or less during prior three years:
 1. \$50,000 per attendance center;
 2. Additional administration funding for districts with fewer than 900 ADM;
 3. Additional operations and maintenance funding for districts with less than 1100 ADM.

January 19, 2000 District Court Order

Reference: District Court of the First Judicial District, No. 129-59, January 19, 2000.

- Although the Trial Court ruled the state met its burden of proving the revised school funding system was adequate to provide the basket of education goods and services, it rendered the small school and small district adjustments unconstitutional;
- The Court ruled the "quarter mile rule" unconstitutional even though it acknowledged the provision would die under 1999 legislative action;
- The small-school adjustment was ruled unconstitutional based upon the state's inability to prove the adjustment reflected the actual cost of operating small schools;
- Under the ruling, the state failed to prove the small district adjustment was "demonstrably cost-based" and failed to provide evidence for the necessity of the adjustment.

2001 General Session

Reference: 2001 Laws, Ch 176.

- Moved the date set by law for reevaluation and reconfiguration of the school funding model up one year, from 2003 session to 2002 session.

February 23, 2001 Supreme Court Decision

Reference: *State of Wyoming, et al., v. Campbell County School District, et al.*, 2001 WY 19, 19 P. 3d 518 (Wyo. 2001) ("*Campbell II*").

- The Supreme Court upheld the Trial with respect to the small school and small district adjustments;
- The triggering mechanisms for the small-school adjustment (200 and 400 ADM thresholds), as well as the reimbursement for actual food service, activities and utilities costs under the adjustment, were determined not to be based upon cost differentials rendering the adjustment unconstitutional. The Court directed the legislature to examine the actual costs of student activities and food services for all schools, large and small, compare the costs to amounts funded under the model and ensure the costs are fully funded;
- The Court found no justification for the small district adjustment. It required any such adjustment to be based upon documented shortfalls experienced by small districts that are not equally incurred by large districts.

2002 Special/Budget Session

Reference: 2002 Laws, Ch 76, Sections 2, 10 and 12.

RESPONSE TO *CAMPBELL I*

I

- Small-school Adjustment:
 1. Adjustment to prototypical amounts for small schools based upon number of personnel required for various levels of ADM, with a per ADM adjustment that declines as ADM increases;
 2. Regression equations for small-school adjustment estimate utility and student activity costs, but do not include reimbursements for food services;
 3. Separate adjustment for unusually small schools eliminated, with all small schools included within small-school adjustment. Any school smaller than model prototypes (elementary-263 or less; middle-299 or less; high school-599 or less) receives some positive adjustment.

- Small District Adjustment:
 1. Adjustment for small school districts based upon three prototypes of 250, 550 and 1000 ADM;
 2. Each prototype allocates central office staffing levels, with per ADM funding decreasing as ADM increases. The smallest prototype (250) allocates one superintendent, one business manager, one curriculum and instruction coordinator, one technology coordinator and two clerical. The next district prototype (550) adds one administrator, and the 1000 prototype adds one administrator and one clerical;
 3. Any district with ADM prototypical levels eligible for adjustment.

- Hold Harmless: For SY03 and SY04, school district guarantee amounts held harmless to SY02 guarantee levels, excluding amounts lost due to ADM decreases. Intent was to buffer districts with large amounts of guarantee based upon small school and regional cost of living adjustments (NOTE: regional cost adjustment modified by 2002 legislature to address Court decision).

- Small School Study: Study initiated to review small-school adjustment based upon school level data, as the 2002 legislature determined combined impact of small-school adjustment and regional cost adjustment modifications addressing Court decision not acceptable.

2003 General Session

Reference: 2003 Laws, Ch 208, Section 501, and 2003 Laws, Ch 207.

- Continued small school study, with findings available to the 2004 legislature for consideration;
- Intent was to combine the small school study with the regional cost study to address impact of expiration of hold harmless (expires at the end of SY04);
- Modified computation of hold-harmless amounts by excluding reimbursements from amounts held harmless. Reimbursements include special education, transportation and other actual reimbursable costs under the school funding model.

APPENDIX B

Small School Advisory Committee Members

Craig Beck, Superintendent, Fremont #25

Steve Cady, Business Manager, Hot Springs #1

Troy Claycomb, Superintendent, Weston #7

Senator Hank Coe, Education Committee Co-Chair (Ex Officio)

Ken Griffith, Principal, Guernsey-Sunrise Junior High/Senior High, Platte #2

Steve Hopkins, Business Manager, Natrona #1

Vern McAdams, Business Manager, Laramie #2

Kevin Mitchell, Superintendent, Big Horn #1

Ken Neilson, Principal, South Elementary, Fremont #1

Tracy Norris, Principal, Kaycee Elementary, Middle, High School, Johnson #1

Tammara Price, Business Manager, Crook #1

Lex Porter, Board Member, Lincoln #2

Betsy Sell, Principal, Wapiti Elementary, Park #6

Kathy Shirley, Superintendent, Goshen #1

Dan Stephan, Superintendent, Laramie #1

Marsha Tynski, Board Member, Sweetwater #2

Representative Jeff Wasserburger, Education Committee Co-Chair (Ex Officio)

APPENDIX C

State-by-State Summary

Alabama. None indicated.

Alaska. Average Daily Membership (ADM) is adjusted to reflect regional cost differences and higher costs per pupil at small sites. District cost indexes that confound these two factors were developed in 1998 based on actual expenditures. This approach was viewed as an adequate short-term solution, but a report by the Alaska Department of Education in January 2001, called for a new study to develop cost factor models for small schools.

Arizona. Additional funds are provided for the operation of low enrollment and isolated school districts. Small isolated school districts are those that have an ADM of less than 600 and are more than 30 miles from the nearest school operated by another district. ADM is weighted by grade level (K-8 or 9-12), district size (the weight declines as the school district increases in size up to 600 pupils), and location (isolated or non-isolated district).

Arkansas. Districts designated as isolated may receive two levels of funding. All “isolated” districts having an ADM of less than 350 and an ADM density of less than 5 students per square mile receive additional funding. Districts with an ADM density of less than 1.2 students per square mile receive 50% more additional funding.

California. California provides funding for “necessary small schools” as follows:

- (1) For elementary school districts that have only one elementary school, if the ADA is less than 26, \$52,925 is provided; if the ADA is from 26 to 50, \$105,850 is provided; if the ADA is from 51 to 75, the amount is \$158,775; and from 76 to 100, \$211,700 is allotted.
- (2) For districts that have more than one elementary school, and which have a total enrollment of less than 2,501, allocations are made to “necessary small schools” in the amounts given above in (1). A “necessary small elementary school” is one with an ADA of less than 101 and to which school any of the following conditions apply: (a) If as many as five pupils would be required to travel more than ten miles one way from a point on a well-traveled road nearest their home to the nearest other public elementary school; (b) if 15 pupils have to travel more than five miles; or (c) if topographical or other conditions exist which would impose an unusual hardship if the number of miles specified in (a) and (b) were required to be traveled, or if during the fiscal year the roads which would be traveled have been impassable for more than an average of two weeks per year for the preceding five years.
- (3) For districts with fewer than 2,501 pupils in ADA, a “necessary small high school” is defined as a school with an ADA of less than 301 and which meets any one of the following conditions: (a) The projection of future enrollment on the basis of enrollment in the elementary schools in the district shows that within eight years the enrollment of the high school will exceed 300; (b) the high school has less than 100 ADA and is more

than 15 miles by well-traveled road from the nearest other public high school, and either 90% of the pupils would be required to travel 20 miles or 25% of the pupils would be required to travel 30 miles one way; (c) declining mileage requirements for high schools from 100 to 149, from 150 to 199, and from 200 to 300; (d) topographical conditions that would impose an unusual hardship if the mileage requirements were imposed.

- (4) Necessary small high schools receive funding according to a table which provides, for example, \$191,340 for a school with 1-20 ADA and three teachers, \$449,220 for a school with 106 to 120 ADA and nine teachers, and \$707,100 for a school with 261 to 300 ADA and fifteen teachers.

Colorado. Per pupil funding is adjusted by a size factor. Small districts (fewer than 5,650 pupils) and large districts (more than 32,192 pupils) receive greater size factors and thus greater funding adjustments than medium-sized districts. An additional compensating adjustment is made for any district with fewer than 500 pupils and in which a charter school operates.

Connecticut. None indicated.

Delaware. Some staffing units are allocated independently of district size (such as “one superintendent” per district; “one administrative assistant” per district). Some other staffing units depend on district size (such as “one building and grounds supervisor” if the district has 95 units—about 1,800 pupils).

Florida. To account for the increased expenses of smaller districts, Florida has a sparsity supplement for districts with fewer than 20,000 pupils and three or fewer high school centers.

Georgia. Georgia has a “base” size for districts (3,500 FTE students), elementary schools (450), middle schools (624), and high schools (970). Districts and schools below these sizes receive a pro-rata portion of State funding for certain specified administrative functions. Sparsity grants are provided under the following conditions: (1) The local school district is unable to offer typically available educational programs and services; (2) Inability to offer programs is due at least in part because the district has FTEs less than the base sizes; (3) A study by the State Board determines that a merger with another district is infeasible due to travel time criteria; (4) Voters or school officials in the other local school district reject the proposed merger; (5) The adjoining school districts have refused to participate in the State study; (6) The State Board of Education study finds that the merger would still result in a school district of small size so that comparable programs could still not be offered.

Idaho. None indicated.

Illinois. None indicated.

Indiana. None indicated.

Iowa. None indicated.

Kansas. Enrollment in small school districts is weighted so that districts with 100 pupils receive 214% of base aid, districts with 300 pupils receive 158% of base aid, and so forth down to 100% of base aid for districts with 1,725 pupils.

Kentucky. None indicated.

Louisiana. To recognize the increased costs for fixed overhead in smaller school districts, student enrollment is weighted from 0.20 at zero student count down to 0.0 at 7,500 student count. The add-on formula is: $(7,500 \text{ minus October 1 Membership}) / 37,500$.

Maine. Maine has a geographic/small school adjustment in its funding formula. The Commissioner, with the approval of the State Board of Education and under rules promulgated by the department of education, determines whether a school within a district is geographically isolated. The following factors are considered in making this determination: (1) Per pupil expenditures; (2) distance of the school from other school facilities; (3) unique transportation problems; (4) size of the school; (5) tax rate in the school district; and (6) any other relevant factors. For a school that is identified as geographically isolate, the Commissioner adjusts the operating allocation to the district to meet the educational needs of the district.

Maryland. None indicated.

Massachusetts. None indicated.

Michigan. None indicated.

Minnesota. Sparsity revenue is provided to districts with small, geographically isolated elementary and secondary schools. To qualify, a secondary school must have fewer than 400 students in grades 7-12, and an “isolation index” of more than 23. The isolation index is a function of the distance to the nearest secondary school and the size of the school’s attendance area. An elementary school must average fewer than 20 students per grade level and be 19 miles or more from the nearest elementary school to qualify for sparsity revenue.

Mississippi. None indicated.

Missouri. None indicated.

Montana. The per pupil entitlements of elementary and high school districts start at a certain level and decline in a straight-line manner until 1,000 students is reached in a K-6 program, and 800 is reached in a secondary program. Students above these thresholds are funded at a flat rate. The funding formula also provides for grouping pupils into separate budget units when schools within a district are at least 20 miles apart or when conditions exist that would create an unusual hardship for transporting students to another school.

Nebraska. There are three components of the allocation system for small and sparsely populated districts: (1) School districts are grouped into “very sparse,” “sparse,” and “standard cost” groups according to measures of students per square mile and distance between high school attendance centers. The average expenditure of each group is multiplied by “adjusted formula students” to

yield “formula need.” (2) A “small school stabilization adjustment” for districts that have fewer than 900 pupils cushions funding in declining enrollment districts. (3) “Weighted formula student” numbers are increased by an extreme remoteness factor of 12.5% for districts with fewer than 200 formula students, more than 600 square miles area, fewer than .3 formula students per square mile, and more than 25 miles between high school centers.

New Hampshire. None indicated.

New Jersey. None indicated.

New Mexico. New Mexico makes adjustments for school size, district size, and rural isolation.

New York. None indicated.

Nevada. Basic support for each district is determined using “allocation tables” adopted by the Nevada Department of Education. There are tables for teachers and for licensed non-teaching staff. The allocations are applied to “attendance areas.” For example, elementary schools with enrollments from 160 to 200 receive nine teachers; secondary schools from 156 to 260 earn fifteen teachers; and secondary schools with 1,000 to 2,799 are provided a number of teachers equal to enrollment divided by 22. Similar tables are used for licensed non-teaching staff, except that districts are grouped into four categories (the “very large,” the “centralized compact,” the “rural spread out,” and the “very small”), and all districts in each category have the same ratios of licensed non-teaching staff, and the same dollar amounts for salary costs and operational costs.

North Carolina. Special allotments may be made to small schools of less than 100 ADM when consolidation is not feasible due to geographic isolation. Also, there is small-county supplemental funding. School systems that qualify are those with (a) ADM less than 3,150 and (b) ADM between 3,150 and 4,000 where the county-adjusted property tax base per student is below the State average.

North Dakota. For necessary small elementary schools that serve less than 50 students, at least 15% of whom would need to travel beyond a 15-mile radius from their residences to another school, the weighting factor is increased 20% for the first 15 students. For necessary small high schools that serve less than 35 students, at least 15% of whom would need to travel beyond a 20-mile radius from their residences to another school, the weighting factor is increased by 20% for the first 20 students.

In addition, there are weighting factors for district size—three categories for grades 1-6 (less than 100, 100-999, and 1000 and more) and four categories for grades 9-12 (less than 75, 75-149, 150-549, and 550 and up).

Ohio. None indicated.

Oklahoma. Average Daily Membership is adjusted to reflect district size and isolation. Districts with fewer than 530 pupils are eligible for a small district adjustment.

Oregon. Students enrolled in a remote small school receive a higher weight in determining weighted average daily membership. The weight is based on grade level, average grade size, and the distance to the next nearest school site. The smaller the school, the higher the weight. Elementary schools must be more than 8 miles, and secondary schools more than 10 miles, from the nearest school. The weight is based on school size, not district size. Thus, some large districts have remote small schools qualifying for additional funding.

Pennsylvania. Any school district that is below average in wealth and has an average daily membership of less than 1,501 qualifies for an additional \$75 per pupil.

Rhode Island. None indicated.

South Carolina. None indicated.

South Dakota. Average Daily Membership is adjusted for small districts as follows: (1) For districts with ADM of less than 201, ADM is multiplied by 1.2. (2) For districts with ADM from 201 to 599, 2.98 times ADM raised to the power of .8293.

Tennessee. None indicated.

Texas. Small and mid-size districts receive a size adjustment. The per pupil allocation (ABA—Adjusted Basic Allotment) for districts with fewer than 1,600 students is adjusted as follows:

$$\text{Adjustment} = (1 + ((1600 - ADA) \times .00025)) \times \text{ABA}$$

Districts with less than 1,6000 pupils and more than 300 square miles are eligible for the following adjustment:

$$\text{Adjustment} = (1 + ((1600 - ADA) \times .0004)) \times \text{ABA}$$

The mid-size (from 1,600 to 5,000 students) district adjustment is calculated as follows:

$$\text{Adjustment} = (1 + ((5000 - ADA) \times .000015)) \times \text{ABA}$$

In addition, there is a sparsity adjustment for very small sparsely populated districts, determined as follows:

If a district has fewer than 130 students in ADA, it receives a basic allowance based on 130 students (for K-12 districts with at least 90 students or a distance of 30 miles by bus from the nearest high school district); or on 75 students (for K-8 districts with at least 50 pupils or a distance of 30 miles by bus from the nearest high school district); and on 60 students (for K-6 districts with 40 students or 30 miles by bus from the nearest high school district).

Utah. The diseconomies of scale associated with small and rural schools that, due to sparsity of population and distance, cannot be readily consolidated with other schools are compensated by the State through its Necessarily Existent Small Schools fund. These funds are intended to fund

specific schools. The law and Board of Education rules governing this funding are complicated and require schools to make an annual application for the funds.

Vermont. Schools of less than 100 students may receive a supplement of up to \$50,000, not to exceed \$2,500 per pupil, for operation of small schools. Also, schools with fewer than 20 pupils per grade are eligible for a grant.

Virginia. None indicated.

Washington. Additional staff formula units are provided to school districts that:

- (1) Operate schools that have FTE enrollments under 100 or operate “remote and necessary” K-8 schools with under 100 FTE enrollment;
- (2) Operate “remote and necessary” schools having FTE enrollment in grades 9-12 of under 25;
- (3) Operate no high schools and have total FTE district enrollment between 50 and 180; or
- (4) Operate not more than two high schools with total FTE enrollment in grades 9-12 of fewer than 300 in each high school.

West Virginia. None indicated.

Wisconsin. None indicated.

APPENDIX D

Form 1: Wyoming Small Schools Study: 2002-03 Questionnaire

Name of district <field>

Name of school <field>

Name of principal <field>

Name of person completing this form:

Name of Interviewer:

Date of Interview:

Please answer the following questions to the best of your ability using the most recent year of information. If the information is not 2002-03 specific, please indicate the year of the provided information.

- 1) Total number (including general ed and special ed) of students currently enrolled in each grade:

PK K 1 2 3 4 5 6 7 8 9 10 11 12

- 2) Do you anticipate any significant changes in enrollment in the foreseeable future?
- 3) How many full-time equivalent (FTE) teachers are employed in this school?
- 4) How many teachers in this school are less than fully certified? Include in this count teachers with transitional, portfolio and collaboration credentials.
- 5) What subject(s)/class(es) does each less than fully certified teacher currently teach?
- 6) How many teachers at this school hold multiple endorsements or multiple credentials? What are those credentials?

How many teachers were hired in this school for each of the following school years?

2002-2003

2001-2002

- 7) From where did the teachers hired in 2002-03 and 2001-02 come? (Which college, state, school district, or school?)

- 8) Is teacher turnover a problem at this school? Explain (how often turnover of teachers, where they go, reasons for leaving).

- 9) How many FTE principals are employed in this school?

- 10) How many FTE other certified personnel are employed in this school?

- 11) How many FTE classified personnel are employed in this school (fill in table below)?

<u>CLASSIFIED PERSONNEL</u>	<u>FULL-TIME EQUIVALENT (FTE)</u>
Aides	
Secretarial/Clerical	
Maintenance & Operations	
Other Classified (specify)	

- 12) For each person employed in this school less than full time, what percent of his or her time does he or she work elsewhere in the district?

Position (e.g., principal) Percent Time Employed Elsewhere in District

- 13) Within the school, are any services provided by non-district employees (contract employees)? If yes, explain.

- 14) If this school were to be closed, how much time would students be required to travel to the next nearest school, regardless of which district that school may be in or impact on the receiving school?

- 15) What are your annual expenditures for utilities?

Gas/coal (other heat source)?

Electric?

Water?

16) About how much time does it take to drive to the nearest town (in state or out) with the following populations?

	<u>Name of town</u>	<u>Time to Travel (one way)</u>
10,000?		
5,000?		
2,500?		

17) About how much time does it take to drive from this school to the district office?

18) Describe the ways your school offers specialized classes, e.g., advanced science, math, etc.

19) What are the major costs, other than student transportation, for student activities?

20) What are the unique challenges posed by the operation of this school?

21) Does this school provide a program consistent with state law? If not, what elements are missing?

22) What advantages accrue to students from attending this school?

23) What kind of assistance do you need from the state that you are not presently receiving?

24) Is there anything else you could tell us to help you understand the costs associated with operating this school?

Interviewer Comments:

APPENDIX E

District-by-District Funding Comparisons

District 1	ADM 2	FY 2002		Difference
		Current Model SS TOTAL ADJUSTMENT	Proposed Model SS TOTAL ADJUSTMENT	
Albany #1 (Laramie)	3,683.052	\$ 1,817,272	\$ 1,538,648	\$ (278,624)
Big Horn #1 (Byron)	771.525	\$ 700,916	\$ 1,611,435	\$ 910,519
Big Horn #2 (Lovell)	719.260	\$ 145,023	\$ 445,220	\$ 300,197
Big Horn #3 (Greybull)	505.745	\$ 198,973	\$ 570,523	\$ 371,550
Big Horn #4 (Basin)	343.617	\$ 448,555	\$ 897,266	\$ 448,711
Campbell #1 (Gillette)	7,259.026	\$ 878,065	\$ 1,014,434	\$ 136,369
Carbon #1 (Rawlins)	1,864.258	\$ 764,454	\$ 1,232,898	\$ 468,444
Carbon #2 (Saratoga)	812.636	\$ 1,243,304	\$ 2,128,581	\$ 885,276
Converse #1 (Douglas)	1,635.272	\$ 657,529	\$ 899,299	\$ 241,770
Converse #2 (Glenrock)	796.516	\$ 404,129	\$ 670,621	\$ 266,491
Crook #1 (Sundance)	1,178.885	\$ 1,023,991	\$ 2,169,900	\$ 1,145,909
Fremont #1 (Lander)	1,919.824	\$ 422,129	\$ 393,326	\$ (28,803)
Fremont #2 (Dubois)	287.496	\$ 209,290	\$ 423,147	\$ 213,857
Fremont #6 (Pavillion)	382.201	\$ 339,411	\$ 740,437	\$ 401,026
Fremont #14 (Ethete)	644.002	\$ 172,724	\$ 456,982	\$ 284,258
Fremont #21 (Ft. Washakie)	259.918	\$ 102,878	\$ 239,320	\$ 136,442
Fremont #24 (Shoshoni)	348.180	\$ 275,603	\$ 623,469	\$ 347,867
Fremont #25 (Riverton)	2,535.482	\$ 13,108	\$ 45,033	\$ 31,925
Fremont #38 (Arapahoe)	264.231	\$ 7,820	\$ -	\$ (7,820)
Goshen #1 (Torrington)	1,998.786	\$ 860,014	\$ 1,701,456	\$ 841,442
Hot Springs #1 (Thermopolis)	785.905	\$ 207,555	\$ 686,518	\$ 478,963
Johnson #1 (Buffalo)	1,271.064	\$ 583,416	\$ 1,456,145	\$ 872,729
Laramie #1 (Cheyenne)	12,753.612	\$ 996,878	\$ 1,231,982	\$ 235,103
Laramie #2 (Pine Bluffs)	931.138	\$ 983,534	\$ 2,008,598	\$ 1,025,064
Lincoln #1 (Kemmerer)	812.379	\$ 196,208	\$ 674,921	\$ 478,713
Lincoln #2 (Afton)	2,373.456	\$ 380,436	\$ 441,827	\$ 61,392
Natrona #1 (Casper)	11,495.596	\$ 2,139,623	\$ 2,517,604	\$ 377,981
Niobrara #1 (Lusk)	440.375	\$ 318,111	\$ 732,984	\$ 414,873
Park #1 (Powell)	1,708.319	\$ 324,969	\$ 613,352	\$ 288,383
Park #6 (Cody)	2,374.286	\$ 308,954	\$ 211,287	\$ (97,668)
Park #16 (Meeteetse)	158.874	\$ 273,148	\$ 433,502	\$ 160,354
Platte #1 (Wheatland)	1,367.119	\$ 866,643	\$ 1,532,462	\$ 665,819
Platte #2 (Guernsey)	258.718	\$ 313,253	\$ 617,490	\$ 304,237
Sheridan #1 (Ranchester)	873.507	\$ 542,454	\$ 1,320,426	\$ 777,972
Sheridan #2 (Sheridan)	3,166.705	\$ 499,188	\$ 719,320	\$ 220,133
Sheridan #3 (Clearmont)	101.654	\$ 556,226	\$ 699,568	\$ 143,342
Sublette #1 (Pinedale)	608.761	\$ 267,164	\$ 555,985	\$ 288,820
Sublette #9 (Big Piney)	590.427	\$ 271,131	\$ 756,420	\$ 485,289
Sweetwater #1 (Rock Springs)	4,690.071	\$ 1,484,844	\$ 1,873,839	\$ 388,996
Sweetwater #2 (Green River)	2,746.975	\$ 652,405	\$ 635,699	\$ (16,706)
Teton #1 (Jackson)	2,174.808	\$ 580,830	\$ 1,066,285	\$ 485,456
Uinta #1 (Evanston)	3,226.127	\$ -	\$ -	\$ -
Uinta #4 (Mt. View)	711.423	\$ 228,937	\$ 749,289	\$ 520,352
Uinta #6 (Lyman)	836.357	\$ 187,737	\$ 648,936	\$ 461,199
Washakie #1 (Worland)	1,508.837	\$ 80,264	\$ 354,527	\$ 274,262
Washakie #2 (Ten Sleep)	129.730	\$ 374,078	\$ 580,266	\$ 206,188
Weston #1 (Newcastle)	924.705	\$ 314,632	\$ 800,554	\$ 485,922
Weston #7 (Upton)	273.927	\$ 273,902	\$ 655,349	\$ 381,447
Wyoming Total	87,504.77	\$ 24,891,709	\$ 42,377,129	\$ 17,485,420