



MANAGEMENT ANALYSIS & PLANNING, INC.

WYOMING EDUCATION FINANCE

Small District Report

Submitted to

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Small District Report

The original 1997 MAP report did not provide for an adjustment in the Wyoming funding formula for small school districts. However, during the 1999 legislative session, such an adjustment was included in the funding system. The system put in place at that time – and still in existence today – provided districts with fewer than 1,350 students an additional \$50,000 for each attendance center beyond the one in which the district office is located. Districts with fewer than 1,100 students receive assistance for maintenance and operations, while districts with fewer than 900 students receive additional help for central administration. In its February 2001 ruling in *Campbell v. Wyoming*, the Wyoming Supreme Court held that “If the legislature is convinced small school districts are not properly funded, any adjustment must be based upon documented shortfalls under the MAP model that are not equally suffered by larger districts.” (*Campbell. V. Wyoming*; paragraph 100).

The literature on economies of scale in public schools and school districts is limited, but it is generally accepted that at the smallest levels, per-pupil costs for operation of the central office are higher than average. The purpose of this report is to document a new cost based adjustment for small school districts. Built into this is an assumption that there are diseconomies of scale for very small school districts, and that additional funding is necessary to insure that adequate resources are available for those districts to provide the “basket” as required. In most cases diseconomies are created by higher than average personnel costs per pupil, i.e. the minimum number of administrators necessary to operate the district¹.

Methodology

To develop a cost based adjustment for small districts, MAP considered the literature on economies of scale in schools, and conducted an analysis of how such adjustments are done in other states. In addition, we conducted site visits in a sample of nine small school districts. The nine districts were selected based on their size and geographic location. We visited two districts with heavy concentrations of Native American students at the request of the Wyoming Department of Education. One district, Natrona #1, was not small districts, but was included because it has small schools within its boundaries and we wanted to fully understand the district level administrative differences experienced by large and small districts as they relate to the management and operation of small schools. Many of the small districts were chosen as part of the sample selection for the At Risk study and we took advantage of the site visits to collect information on both small district issues and at risk issues.

Our goal was to understand the management needs of small districts compared to larger districts across the state. We interviewed district staff to understand the administrative needs of districts with fewer than 1,350 students (the cutoff point for small districts under the existing

¹ It has been suggested to MAP, in various contexts, that several Wyoming school districts are not viable and could easily be consolidated with neighboring districts thereby reducing costs and improving efficiency by eliminating redundant central office overhead. The evidence may support such a proposal, but MAP takes no position on its desirability.

finance system) so that we could insure the model provided for adequate central office staffing needs of these districts.

In addition to conducting interviews with district staff and school personnel, we provided each school and district with a set of survey forms and asked them to provide us information on the number of staff at each school by position and proportion of time worked in that position. Appendix A lists the school districts we visited. Appendix B contains the survey forms used in our site visits.

These data were used in conjunction with reports from both the Wyoming Department of Education and the Wyoming School Board Association to ascertain the number of administrators in district central offices in the development of the prototypes for small school district central administration.

Adjustments for Small Districts in Wyoming

The model proposed herein establishes three prototypes for school district central offices and provides funding via the block grant as an adjustment to the basic prototype funding level. The funding model considers both personnel costs at the central office as well as non-personnel costs.

Personnel costs are estimated based on prototype models described below with actual district funding allocations determined based on the number and type of administrators in the prototype adjusted for district enrollment and the relative experience of the administrator, and on the experience, responsibility and seniority of classified staff, as required by the Wyoming Supreme Court in the February 2001 ruling in *Campbell v. Wyoming*.

Non-personnel costs for central administration are included elsewhere in the funding model. Specifically, in one portion of the new funding model, costs that did not require new computations are increased by the WCLI. That external cost adjustment amounts to 13.2875 percent based on the increase in the Wyoming Cost of Living Index to 2000-01 from a base in 1996-97. Since the adjustment for small districts is intended to fund the incremental additional costs of small district administration, the amount of money generated through the prototypes for central administration – and funded elsewhere in the model – is subtracted from the computed small district prototype for central administration.

Small Districts in Wyoming

Table 1 displays the 48 school districts in Wyoming and their enrollment for the 2000-2001 school year. The table shows that the smallest district in the state enrolls only 117 students; that 12 of Wyoming's 48 school districts enroll fewer than 500 students, and 27 districts enroll fewer than 1,000. Districts with fewer than 1,000 students enrolled a total of 14,496 students or 16.19 percent of the state's total enrollment in 2000-01.

While a high proportion of Wyoming's districts are very small, this is not all that uncommon. Forty-eight percent of the nation's 13,160 school districts enroll fewer than 1,000 students, accounting for about five percent of total K-12 enrollment. Although a larger proportion of Wyoming's children are enrolled in districts with fewer than 1,000 students than is found nationally, average school size is considerably smaller than it is nationally. However, the average school is somewhat larger than the average school in most of the surrounding states as shown in Table 2.

Table 1. Wyoming School District Enrollment, 2000-2001 School Year

County	District	Name	Fall 2000 Enrollment
Sheridan	#3	Clearmont	117
Washakie	#2	Ten Sleep	124
Park	#16	Meeteetse	156
Weston	#7	Upton	257
Fremont	#21	Ft. Washakie	265
Fremont	#38	Arapahoe	269
Platte	#2	Guernsey	276
Fremont	#2	Dubois	291
Fremont	#24	Shoshoni	341
Big Horn	#4	Basin	343
Fremont	#6	Pavillion	390
Niobrara	#1	Lusk	428
Big Horn	#3	Greybull	520
Sublette	#9	Big Piney	569
Sublette	#1	Pinedale	639
Fremont	#14	Ethete	647
Uinta	#4	Mountain View	680
Big Horn	#2	Lovell	724
Hot Springs	#1	Thermopolis	763
Big Horn	#1	Cowley	779
Converse	#2	Glenrock	783
Lincoln	#1	Kemmerer	789
Carbon	#2	Saratoga	791
Uinta	#6	Lyman	820
Sheridan	#1	Ranchester	895
Weston	#1	Newcastle	907
Laramie	#2	Pine Bluffs	933
Crook	#1	Sundance	1,176
Johnson	#1	Buffalo	1,307
Platte	#1	Wheatland	1,351
Washakie	#1	Worland	1,475
Converse	#1	Douglas	1,660
Park	#1	Powell	1,738
Carbon	#1	Rawlins	1,946
Fremont	#1	Lander	1,996
Goshen	#1	Torrington	2,029
Teton	#1	Jackson	2,366
Park	#6	Cody	2,399
Lincoln	#2	Afton	2,412

County	District	Name	Fall 2000 Enrollment
Fremont	#25	Riverton	2,540
Sweetwater	#2	Green River	2,928
Uinta	#1	Evanston	3,219
Sheridan	#2	Sheridan	3,247
Albany	#1	Laramie	3,791
Sweetwater	#1	Rock Springs	4,665
Campbell	#1	Gillette	7,488
Natrona	#1	Casper	12,038
Laramie	#1	Cheyenne	13,264

Source: Wyoming Department of Education - <http://www.k12.wy.us/statistics/statseries.html#2>

Table 2. Average School Size in Wyoming and Surrounding States: 1998

State	Average School Size
Colorado	439.93
Montana	182.60
Nebraska	212.86
North Dakota	195.99
South Dakota	171.00
Utah	636.31
Wyoming	235.15
U.S. Average	515.34

Source: *Analysis of Education Finance Reform: School Years 1996-97 through 1999-00; FY97 through FY00.* Wyoming Department of Education. January 30, 2001

Small District Prototypes

The first step in making the small district adjustment is to determine the prototype staffing levels for small districts. To assess the staffing needs of small district central offices, we conducted interviews in nine sample districts. Our analysis, combined with data from the Wyoming School Boards Association (Salaries of Central Office Certified Staff, 2000-01, mimeograph from WSBA) showed that there is considerable variation in the number of staff at the district office. Yet, two patterns emerge. First, all districts have a superintendent, and second, as districts get larger, the size of the central office staff grows.

In analyzing the size of Wyoming's 48 school districts on the basis of student enrollments, there are three districts with fewer than 250 students. Based on our analysis of school district staffing (from both site interviews and analysis of extant data including data on district office staff at each school district) we concluded that a base prototype for a district of 250

students represented an appropriate place to start in developing prototype district offices for a cost based small district adjustment. It is assumed that the three districts with fewer than 250 students will receive the same small district adjustment for personnel as a district of 250 would receive. Based on our analysis of the field studies, and combined with our review of the staffing report produced by the Wyoming School Board Association, it was estimated that all districts need a minimum central office staffing configuration as follows:²

- Superintendent
- Business Manager
- Curriculum and Instruction coordinator
- Technology coordinator
- Two clerical positions

For larger districts, additional staff would be required. Analysis of current central office staffing patterns based on data from our field visits, the Wyoming Department of Education and the Wyoming School Boards Association showed the number of staff varied considerably, based primarily on enrollment. To get a sense of how our prototype district staffing configuration should be adjusted for larger school districts, we ran three regressions using central staff as the dependent variable and ADM as the independent variable. The constant from this regression provides an estimate of the minimum number of central office staff required for any district, along with an estimate of the points where additional staff are required. We ran one regression using all 48 districts in the state, one with the 29 districts with enrollments under 1,350 and one using the 27 districts with enrollments under 1,000. While the results varied slightly, all three confirmed the estimate of four central office staff positions at an enrollment of 250 ADM.

Moreover, they suggested that a second prototype for small districts be established at an enrollment of 550 and a third at 1,000. At each of these prototypes another central office staff member would be added, and for the prototype of 1,000 a third clerical position would be added as well. Table 3 summarizes the personnel in each small district prototype.

Table 3. Personnel in Small District Prototypes

District Size	Number of Personnel					
	Supt.	Business Manager	Curric. & Inst.	Tech.	Other Central	Clerical
250	1	1	1	1	0	2
550	1	1	1	1	1	2
1,000	1	1	1	1	2	3

Using data from MAP's *Wyoming School District Employee Compensation* report prepared as part of this overall project, personnel costs for each of these prototypes were estimated. The report provides estimates of salary for each type of position for the 2001-02 school year. In

² These personnel estimates do not include personnel for special education and transportation since these two programs are funded by state reimbursement of actual district expenditures.

addition it assumes fixed benefit costs of 19 percent as well as health insurance costs of \$4,890 per employee. Superintendent salaries are estimated at \$80,737, business managers at \$49,845, assistant superintendents such as curriculum and instruction personnel at \$77,428, Food Service personnel \$34,383, Operations and Maintenance supervisors at \$40,786 and technology coordinators at 34,383 Fixed benefits and health insurance costs are added to these. Table 4 displays the personnel component costs for each of the three prototypes using the most recent salary data available for 2001-02. These figures are based on the statewide average salary for each position. Table 5 displays the cost of personnel for each of the three prototypes.

Table 4. Personnel Costs for Small District Prototypes

Position	Prototype Size		
	250	550	1,000
Supt	100,967	100,967	100,967
Business	64,206	64,206	64,206
C & I	97,029	97,029	97,029
Tech	45,806	45,806	45,806
Other Central.	-	51,442	102,884
Clerical	61,658	61,658	92,488
Total	369,666	421,108	503,380

Note: Figures are averages for the state. Each district's funding will be based on the actual enrollment of the district and the relative responsibilities of administrators and the experience, responsibility and seniority of classified staff. Figures will also be updated using 2001-02 salary data when available.

Table 5. Total Estimated Cost of Small District Prototypes

Prototype	Total Funding for Central Office Personnel
250	369,666
550	421,108
1,000	503,380

For districts with more than 1,000 students, the small district adjustment would apply until the funding through this adjustment is equal to or less than the funding the district would receive for central office operations through the standard prototypes. To ascertain where this point occurs, we computed the small district adjustment for districts with more than 1,000 ADM and added to it an estimate of non personnel costs at the central administration level (\$503,380 plus \$205 per ADM³) and compared that to prototype funding for central office operations that would be generated absent the small district adjustment. In the current model, the cutoff point is an enrollment of 1,118 students.

For districts that qualify for the small school adjustment, the appropriate prototype is computed on a per ADM basis. To determine the actual marginal adjustment for individual small districts, the amount of money generated in the central administration portion of the model is subtracted from the prototype amount. The result is a cost based small district adjustment based on prototypes developed from our analysis of the needs of Wyoming school districts that as accurately as possible recognizes the additional costs associated with operation of a small school district.

The previous small district adjustment was based on the number of attendance centers in a school district, providing \$50,000 for each attendance center above the first. The Wyoming Supreme Court questioned the cost basis of this adjustment. The adjustment proposed here does not contain additional funds for multiple attendance centers. Although conceptually one might argue that additional school buildings would lead to higher costs, the new district prototypes focus on staffing to provide adequate district leadership and services; and for staffing purposes are relatively insensitive to district enrollment (ADM). We believe this approach mitigates the need for separate adjustments based on the number of school buildings in the previous approach.

³ Note that the \$205 per ADM that is included in this computation is to accommodate non-personnel costs in the small district and is used as an estimate of those costs and only for the derivation of the cutoff point for small district qualification.

The high administrative staffing ratios provided for the smallest districts (four central office administrators for any district with fewer than 550 children) will enable districts to manage multiple attendance centers without additional funding.

Appendix A: Small School/District Site Visit Sample

District Name & Number
Fremont #14
Fremont #2
Fremont #6
Johnson #1
Laramie #2
Natrona #1
Platte #2
Sublette #9
Washakie #2

Appendix B: Site Visit Interview Forms



**Small School District Site Visit
Form 5**

District 2000-01 ADM by School

Dear District Administrator:

The information listed on this form was obtained from data provided by this school district to the Wyoming Department of Education. Please review it and verify its accuracy before the visit by MAP researchers. For each school, please indicate its distance from the district office in the space provided. This form will be collected and discussed at the time of the site visit.

District _____

Grade	School 1*	School 2*	School 3*	School 4*	School 5*	Total
K						
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						

Total						
Miles From District Office						

Grade	School 6*	School 7*	School 8*	School 9*	School 10*	Total
K						
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
Total						
Miles From						

*Please put name of school in column heading



Small School District Site Visit

Form 6

**District Staff Summary
SY01-02**

Please complete the following information for every individual who works in this school district. Include all classified and certified employees who work in the central office , school or elsewhere in the district. Indicate below whether each individual works at the central office or is assigned to a school. Indicate the school name for each employee assigned to a school. If an school employee works at more than one school (for example a custodian or an administrator who serves two or three schools), allocate his or her time based on relative enrollment at each school. If you choose another method of allocating time, please describe this on a separate sheet. Names listed on Forms 2, 2a, and 3a may be incorporated on this form by reference. This form will be collected and discussed at the time of the site visit.

District _____

Form completed by _____

Date completed _____

Name	Job (e.g. . superintendent, teacher, curriculum director, special education director, business manager, accounting clerk, technology support, maintenance, transportation director, secretary, bus driver, etc.)	% time employed in designated position (FTE)	Central Office Employee Yes/No	Name of School(s) where employed

Copy this form if _____ sheets are necessary. Indicate here if additional sheets are being provided _____



Small School District Site Visit

Form 7

Interview

Amount this district receives:	District Schools Visited:
Small school(s) adjustment \$ _____	_____
Small district adjustment \$ _____	_____
Transportation \$ _____	_____
Student Activities \$ _____	_____
Utilities \$ _____	_____
EDY \$ _____	_____
LES \$ _____	_____
Food Services \$ _____	_____

Interview Questions for Administrator at Small District Office

_____ District _____

Name of MAP researcher conducting interview _____

Name(s) and titles of person(s) interviewed _____

Date of site visit _____

1. Describe the district. How many schools? How many are remote? How far apart? Other unique characteristics.

2. It tends to cost more per pupil to educate a child in a small school district than in a larger district. What are the characteristics of this district that tend to cost more per child than in larger districts? (Ask for specific cost examples.)

3. Are there schools in your district that create additional costs because of their remote location? Which schools? What is the nature of the additional costs?

4. Below are the costs you reported to WDE in 99-00 and 00-01. Do you anticipate that they will change substantially in 01-02? Why?

	00-01	99-00	Change?
a. Utility costs			
b. Transportation costs			
c. Student activities			
d. Food services			

5. Your school district generates \$_____ from the small school adjustment, \$_____ from the small district adjustment, \$_____ for the EDY adjustment and \$_____ for the LES adjustment. What the procedure do you use to allocate expenditures from these funds within the district?

6. In your opinion, are students who attend school in this district disadvantaged relative to students who attend school in larger districts? Why?

7. Does the instructional program in your district cover all of the state standards? If not, which ones are not being offered? Why not? What will you do about it?

8. Which schools in your district are accredited? When?

9. How well do the students leaving this school district do at the next level of schooling? How do you know? How many go on to higher ed?

10. How difficult do you find it to attract and retain qualified teachers? Please cite examples. Has this changed over time? Have you implemented any new recruiting strategies the past 5 years?

11. How many teachers did you hire this year? What are their names? From where did you hire them? (i.e. college, state etc.) Do you have any unfilled vacancies?

12. How many teachers did you hire last year? What are their names? From where did you hire them?

13. How many teachers left this district last year? For what reasons? How do you know?

14. How many teachers left this district two years ago? For what reasons? How do you know?

15. Do you offer teachers an opportunity for early retirement? Why?

16. Looking at Form 6, please describe the duties of each central office employee.

17. Does this district have a written professional development plan for teachers? (If so, please attach.)

18. If the state were to adopt the following definition of school, what would be the effect on this district?

A school is one or more buildings that contain one or more grades and at least three of the following facilities that are not shared with another school: (1) library, (2) cafeteria, (3) administrative office, (4) heating and ventilation system.