THE COSTS OF PROVIDING A BASIC PUBLIC SCHOOL EDUCATION IN MONTANA

by

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ABSTRACT

Policymakers in Montana have no way of knowing if the foundation program actually provides enough money to give students the quality basic education demanded by the Montana Constitution. Plaintiffs, in a lawsuit filed in 1985, contended that the foundation program and permissive levies did not provide for a basic education. They contended, and the judge agreed, that the quality of education, measured in dollars spent per student, was a function of the wealth of a district and was, therefore, unconstitutional. Research presented in this paper establishes a method by which the cost of any defined basic quality education may be determined and equitably funded, in compliance with the court order.

The current school accreditation standards are utilized in this research as a definition of basic education. Each component of education specified or implied by these standards is defined and quantified, including personnel, benefits, plant, books, supplies, and insurance. A cost is then assigned by school district for each component, and the statewide costs are totalled.

This methodology indicates that it costs school districts $355.3 million of the $435.9 million actually spent in fiscal 1986 to comply with the accreditation standards. The $355.3 million cost of complying with the standards is $73.2 million more than the $282.1 million in foundation money provided by the foundation and permissive programs in fiscal 1986.

The methodology presented here provides a mechanism by which the cost of education may be determined and by which funding can be related to costs. This process allows the establishment of new foundation schedules, accurate estimates on the cost of funding the school districts in Montana, and a new system of equalized funding.

CHAPTER 1

INTRODUCTION

Policymakers in Montana have no way of knowing if the foundation program, which they have established as the vehicle for funding the public schools, actually provides enough money to give students the quality education demanded by the Montana Constitution. This paper determines the cost of complying with the current public school accreditation standards, not only so that we will know if the foundation program is actually funding these standards, but so that we will have a base to work from in determining costs of any new basic system of quality education. From a knowledge of the costs of a required educational system, an equitable funding formula can be derived. This paper utilizes the current accreditation standards as a definition of basic education. It then determines the cost of meeting those standards and the relationship of the costs to the state funding provided. The methodology defined here can be used to determine the costs of any system that may be defined as basic education.

CHAPTER 2

EDUCATIONAL STANDARDS AND FUNDING

Montana funds its educational system through a combination of the "Foundation Program", which is a state controlled, funding system, and a program of local effort controlled by the voters.[1] This funding structure requiring all taxpayers to help support education was established because it was believed that the whole population would benefit if all students could receive a "quality education" as demanded by Montana's Constitution.[2]

All schools must meet the accreditation standards as determined by the Montana Board of Public Education in order to obtain the state portion of the foundation funding.[3] However, nowhere in code, nor in research which has been done to date in Montana, has there been any effort to determine how much it costs to meet the accreditation standards. Certainly there has been no determination as to whether those standards demanded by the state actually define a basic system of quality education, or whether they are fully funded by the foundation program.

Complicating the picture is the fact that a decision reached by district court Judge Loble in Helena School District Number 1 v. The State of Montana in January, 1988, found that: 1) the state's system of funding public education is unconstitutional because it does not provide for equal opportunity; i.e., equal access to dollars, and 2) the current

accreditation standards do not define the basic system of quality education required by the Montana Constitution.[4] To understand the scope of the dilemma in which the State of Montana finds itself, the issue of equal opportunity, the definition of basic education, and the resulting problems which must be solved legislatively are discussed separately.

Equal Opportunity

The Constitution of Montana declares that the educational goal of the state is to establish a school system that will develop the full educational potential of each person, and that equality of educational opportunity is guaranteed to each person. The legislature is charged by the constitution with the responsibility of providing for a basic system of free quality public schools, and of funding in an equitable manner to the school districts the state's share of the cost of that basic education. The terms, "funding in an equitable manner", "quality", and "basic education" are undefined. Furthermore, because of undefined concepts, it is possible that statutes do not conform to the constitutional mandate.

A literature survey has revealed a wealth of information from states such as Georgia and Wyoming concerning the funding formulas they use, their lawsuits, and the equity issues involved. In all cases, the emphasis was on equalizing the funding per student. It was then assumed that equalized funding would result in equal opportunity for education. Judge Loble has reiterated the same assumption in his opinion that substantially equal funding means substantially equal opportunity.[5]

If equal funding means equal opportunity, then Montana does not provide equal opportunity as required by the Constitution. Taxable valuation varies widely among counties in Montana, depending on the resources and businesses within those counties. For example, one of the resource-rich counties, Rosebud, had a fiscal 1986 taxable valuation of over $237 million. Petroleum County, with essentially no resources, had a taxable valuation of less than $3 million.[6] Yet, there is practically no correlation between the wealth of the county and the numbers of students in its schools. There are approximately 1,000 students in the school systems of Rosebud County; in Petroleum County there are about 130. That means that in Rosebud, $230,000 in taxable valuation is available to support each average number belonging (ANB). In Petroleum, only $23,100 is available, nearly a 10 to 1 ratio. Rosebud's 4.39 mills for teacher retirement in fiscal 1986 raised about $1,000 per ANB. If Petroleum had tried to staff its schools with the same number of teachers per student at the same wage scale that Rosebud did, Petroleum would have had to levy 43 mills. In actual fact, Petroleum levied 20.2 mills, indicating that its schools had a higher student-teacher ratio, lower paid teachers, or some combination of the two. The tax cost per ANB was still nearly five times the cost in Rosebud. Thus, the taxable wealth of the county caused wide differences in levies for the same services, and it forced differences in quantity of education as measured by dollars spent.

This lack of equal opportunity was the impetus behind the lawsuit filed in district court in 1985 by a consortium of underfunded districts. The issue was the contention that the number of dollars

spent per ANB varies so widely that there could not possibly be equal access to a quality education. The judge agreed in the decision in January, 1988, that Montana's funding system did not provide for equal opportunity. One of the three tiers of the state's system for funding, the heavy reliance on the voted levy, was unconstitutional because it allowed wealthier districts to spend more per student with less tax effort; i.e., a lower mill levy. Equal opportunity had been denied.

Basic System of Quality Education

A basic system of quality education is not defined by the Constitution of Montana, nor is it defined in Montana statute. In the findings of fact, Judge Loble found that the accreditation standards promulgated by the Board of Public Education do not define basic quality education and that the foundation program does not cover the cost of meeting those standards.[7] Based on testimony from the Board of Public Education, which stated that the standards were minimums only, the judge ruled that the standards did not define a basic system of quality education. He did not even discuss the state's contention that the foundation program provided enough money for a district to comply with the accreditation standards.

After the lawsuit had been filed, the legislature realized that, regardless of the ruling, questions concerning the definition of basic quality education were going to require answers. The 50th Legislature therefore passed House Joint Resolution 16.[8] This resolution recognized that the Legislative Finance Committee's Subcommittee on School Funding had defined basic education as the Board of Public Education's school accreditation standards and that there was a need to continually review

whether the accreditation standards adequately define basic education. The Board of Public Education, in section 2(a) of HJR 16, is required to administer and coordinate a review of the adequacy of the accreditation standards. It was resolved in parts 1(b) and (c) that there should be a thorough interim study regarding the cost of providing services to meet the existing and the proposed accreditation standards. Part 2(b) of the resolution requested that the Legislative Finance Committee further develop the cost components of the existing and the proposed accreditation standards. The Board of Public Education is also required to work with the Legislative Finance Committee and an interim committee to develop a fiscal note and budgeting system.

Acting as directed by House Joint Resolution 16, the board initiated "Project Excellence", a study which may totally overhaul the accreditation standards.[9] The board is now on record that the proposed accreditation standards do, indeed, define the instructional portion of a basic system of quality education. The proposed standards are in the rule-making process. If they are implemented, they will be phased in beginning July 1, 1989.

Legislative Problems

The legislature is now required to define a basic system of quality education and to fund it equitably. All students must have access to a quality education, regardless of the property wealth of the district in which they live. In order to ensure that equal opportunity, as defined by equal funding, is accomplished, the court has maintained jurisdiction in the case. If the legislature doesn't act, the court will.

The legislature needs information in two areas if it is to comply with the court's decision. First, it needs information on defining a basic system of quality education. For purposes of this study, it will be assumed that the legislature can accept the premise that the Board of Public Education's proposed standards define the instructional portion of a basic system of quality education. With that assumption, only the other educational expenses such as for special education, transportation, capital outlay, and insurance, need to be added to define the whole system.

Second, the legislature must know how much it costs now to comply with the current accreditation standards before it can determine how much more it will cost to implement the proposed standards. Once it knows the cost of a quality education, an education defined by the proposed standards, the legislature can adequately and equitably fund the appropriate costs.

There seems to be no precedent for a study that would determine the cost of a basic education as defined by the accreditation standards. Other states have concentrated on distributing the money to schools in an equitable fashion without trying to determine if that money was actually providing a defined basic education.[10] The basic education issue, and the twin issues of equity to taxpayers and equity of educational opportunity for students, are precisely the issues being addressed by our judicial system in the "under-funded school" lawsuit which was decided by Judge Loble in January of 1988. The adequacy of education in Montana cannot even be determined at this point because, unlike other states, Montana does not require a standardized

test or any other student evaluation at any level. Recognizing that more study would be required to provide answers to any issues raised by whatever the court decision would be, the 1987 legislature approved House Joint Resolution (HJR) 16.

HJR 16 requires a multi-faceted study. The State Board of Education is required to review and revise the accreditation standards. Legislative research groups are to determine how other states are handling the equity issue, what the equity problems are in the way Montana finances its public education, what the costs of meeting the current standards actually are, and how those costs will be changed through the imposition of any revised standards. The final requirement of HJR 16 is to establish a fiscal note process by which to determine what any proposed changes in the standards may cost.

While all of these studies are important, the scope of research is far too large to be dealt with in one study. Therefore, this paper will be limited to satisfying two objectives. The first objective is to identify the cost components of K-12 education. The methodology developed here to determine the costs of complying with the current accreditation standards may be used to determine the costs of the proposed standards. This research will allow the determination of costs by educational component, such as administrators, teachers, and books and supplies. It will then be feasible to determine costs of any proposal which would change any particular component in the process of defining a quality basic education.

The second objective is to provide data to enable the legislature to make decisions on the adequacy of the current foundation funding.

This paper will determine the cost of meeting the existing accreditation standards, and it will compare the cost to the amount the state is providing through the foundation program and to the actual amount that schools spend in providing all regular education programs. Once the costs are known, the amount which will be needed to equitably fund a basic education can be determined, based upon a legislatively set formula.

The Loble decision states that the current accreditation standards do not define a system of basic quality education. However, the current standards are the only base available on which to start building an acceptable system of quality education. Therefore, the success of the legislative process in responding to the judge's directive is dependent upon research defining educational components and their costs. Once the legislature knows the components of education and their costs, it will be able to define a system of delivery and funding of education which will be constitutional. That basic research is presented in this paper.

CHAPTER 3

DETERMINATION OF EDUCATIONAL COSTS

This study on the cost of meeting the current accreditation standards is divided into three main sections. The first section discusses the scope of programs that have been included or not included as part of the cost of complying with the current accreditation standards.

The second section of the report explains the methodology used to determine the cost of fourteen components of education. This section includes statute and accreditation standard citations which support the inclusion of various educational costs in the cost of meeting the current accreditation standards. It also includes a methodology for calculating costs for each component of education addressed by the standards or statute.

The final section of the report summarizes the findings on the total costs of complying with the current standards, and it illustrates what portion of those costs are actually funded through the foundation program.

Programs Required to Comply With the Accreditation Standards

This study to determine the cost of complying with the current accreditation standards includes a portion of the expenditures from the general, retirement, and insurance funds. The included expenditures from the three funds are those expenditures for regular and vocational

programs which are defined by the Montana School Accreditation Standards, hereafter referred to as the accreditation standards. The study excludes all of the expenditures from the transportation, bus, school food, tuition, miscellaneous, adult education, debt service, and all "other" funds. While these expenditures may be necessary to operate a total school system, they are excluded here because they are unrelated to the instructional program required by the standards.

As shown in Table 1, expenditures for the cost components of the general fund programs which are a part of this study are $384 million or nearly 87 percent of the total general fund expenditures. The $58.5 million general fund expenditures shown in Table 1 excluded from this study are $13.4 million for extracurricular programs, $2.8 million for enterprise programs, $1.8 million for miscellaneous programs, and $30.9 million for special education. In addition, $9.6 million for expenditures from within the regular and vocational programs, mainly for purchase of land and buildings, construction, and major equipment, has been excluded. These expenditures have been excluded because they are not expenditures required by the current accreditation standards.

Table 1
Cost of all School Programs Relating to Basic Education
Fiscal 1986

Expenditure Type	Programs Included in Cost Study	Programs Excluded from Cost Study	Total Expend. for K-12 Education	Percent Included In Cost Study
General Fund	$384,435,833	$ 58,537,021	$442,972,854	86.79
Transportation	-0-	28,935,684	28,935,684	0.00
Bus Depreciation	-0-	3,137,906	3,137,906	0.00
School Food	-0-	17,851,831	17,851,831	0.00
Tuition	-0-	1,077,793	1,077,793	0.00
Retirement	45,268,559	5,259,407	50,527,966	89.59
Miscellaneous	-0-	11,772,551	11,772,551	0.00
Comp. Insurance	7,237,607	129,803	7,367,410	98.24
Adult Education	-0-	1,984,725	1,984,725	0.00
Debt Svc. and Building	-0-	64,913,456	64,913,456	0.00
All Other	-0-	45,406,129	45,406,129	0.00
Total	$436,941,999	$239,006,306	$675,948,305	64.64

The Board of Public Education maintains that for districts to be in compliance with the accreditation standards they must also be in compliance with all state statutes. This means that retirement and insurance expenditures must also be considered as part of the cost of complying with the standards.

The expenditures for retirement, social security, and unemployment compensation are required by section 20-9-501, MCA, and are funded through the retirement fund. The cost of retirement benefits for personnel included in this study are $45.3 million, or 90 percent of the total retirement fund. Retirement expenditures of $5.3 million have been excluded from consideration as a cost component of this study. These benefits were paid for personnel in special education, extracurricular programs, and food service programs which are not a part of the basic education.

Comprehensive insurance, authorized by section 2-9-212, MCA, is a necessary expense to the school districts because the Montana Constitution does not provide for sovereign immunity. In addition to comprehensive insurance, worker's compensation is required by section 39-71-401, MCA and is paid through the insurance fund. The cost of insurance, including worker's compensation, was $7.4 million for fiscal 1986. Of those costs, 98 percent, or $7.2 million have been included in this study. Insurance expenditures equalling $130,000 were excluded because they were associated with programs which had been excluded from the study.

The "other" costs shown in Table 1 are a group of 28 expenditure categories identified on the school district trustees reports. Expenditures of $45 million for these 28 programs, including traffic education, federal Chapter 1 funds for remedial education, interlocal co-ops, extracurricular activities not funded through the general fund, and vocational technical school payroll, are not included as cost components of complying with the current accreditation standards.

As shown in Table 1, expenditures which were included with this study were $436.9 million, or 64.64 percent of the total actual expenditures of $675.9 million for all public education programs in fiscal 1986.

Methodology

Certain components of the cost of education are detailed precisely by the accreditation standards, while other component costs are required but not defined. A reasonable cost must be determined for

each of the components in order to arrive at a total cost of complying with the accreditation standards.

The components of education required by the standards or statute have been summarized in Table 2. The statutory or accreditation standard citation requiring the inclusion of any given component in the cost of complying with the accreditation standards is given with each component in the second column. The calculation for arriving at the cost of that component is listed in the third column. The fourth column contains the statewide cost of each component.

Table 2
Calculated Cost of Each Educational Component for Regular and Vocational Programs - Fiscal 1986

Component	Citation	Calculation of Cost	State Total (in Millions)
Superintendents	A.S. 203-204	149.0 FTE x $40,763	$ 6.074
Principals	A.S. 204	338.0 FTE x $36,031	12.179
Dist. & Business Admin.	No Citation	Lesser of Actual or 50th Perc.	4.851
Teachers	A.S. 304-305	7547.5 FTE x $22,331	168.543
Counselors	A.S. 406	157.2 FTE x $25,952	4.080
Librarians	A.S. 404	237.3 FTE x $22,560	5.354
Secretaries	A.S. 202, 207, 406	571.0 FTE x $12,016	6.861
Temporary Salaries	No citation	Salaries x 0.8 Std. ratio	3.178
Benefits	MCA 20-9-501	Total Salaries x 0.2318	48.938
Library Materials	A.S. 404	# of Students x Required $	1.658
Texts and Supplies	A.S. 403	Lesser of Act. or 50th Perc.	16.888
Plant Costs	A.S. 500	Lesser of Act. or 90th Perc.	61.353
Other Gen. Fund Costs	No Citation	Lesser of Act. or 50th Perc.	10.798
Comprehensive Insurance	MCA 2-9-212	100% of Actual	5.139
State Total Cost of Complying with Standards			$355.894

A.S. = Accreditation Standard

The remainder of this chapter discusses in detail how each of these cost estimations were determined. Each discussion includes a summary of the calculated cost of the component for the entire state. The component cost for Helena School District #1 has also been included for purposes of illustrating actual and calculated costs within an individual district.

Superintendents

Section 203 of the accreditation standards and section 20-4-401, MCA, require that any district operating either a county high school or both a high school and an elementary school must have a superintendent. Sections 204(4)(d) and (e) of the accreditation standards state that a principal shall be hired "(in addition to the Superintendent)" in any school with 150 or more students. The Board of Public Education addressed the issue of when a superintendent is required in a memo to the Legislative Fiscal Analyst on February 8, 1988. The interpretation of the Executive Secretary of the Board of Public Education is that all districts with enrollment of over 150 students, whether they are unified or not, should be under the supervision of a hired superintendent.

In fiscal 1986 there were 546 districts in the State of Montana. Those districts were categorized as follows: 157 unified K-12 districts; 6 county high schools; 6 elementary districts associated with county high schools; 220 independent elementary districts not associated with a high school.

As shown in Table 3, one half FTE superintendent was assigned for purposes of this study to 60 of the 157 unified K-12 districts which

had high school enrollments of fewer than 150 students. One superintendent FTE was assigned to 97 of the 157 unified districts which had high school enrollment of 150 or more. One superintendent FTE was assigned to each of the six county high schools and the associated elementary district in the same city as if they were unified. The average salary for a superintendent in fiscal 1986 was $40,763. Therefore, the calculated cost for superintendents for the K-12 districts was $5.2 million, and the cost for superintendents for the county high schools was $0.245 million for fiscal 1986.

Table 3
Number and Cost of Superintendents
Fiscal 1986

District Type	Calculated No. of Supts.	Average Sal. per Supt.	Total Calc. Cost (in Millions)	Citation	Required FTE Supt/ District	Actual Cost FTE	Diff. as Percent
			Statewide				
Unified < 150	30.0	$40,763	$1.223	A.S.204	0.5	N/A	N/A
Unified	97.0	40,763	3.954	A.S.203[1]	1	N/A	N/A
Co. High School	6.0	40,763	0.245	A.S.203[1]	1	N/A	N/A
Independent	16.0	40,763	0.652	A.S.204[1]	0.5-1	N/A	N/A
Totals	149.0	$40,763	$6.074				
			Helena				
Unified	1.0	$40,763	$0.041	A.S.204	1	$52,800	29.5

[1] Also cited in MCA 20-40-401

Of the 220 elementary districts not associated with a high school, 198 had enrollment of fewer than 150 students. Section 204(2) of the accreditation standards allows these districts to be supervised by the County Superintendent of Schools. Therefore, no cost was assigned to these districts for superintendent supervision. The remaining 22

elementary districts not associated with a high school were assigned a superintendent based on their enrollment. If the enrollment was between 150 and 300 students, as it was for 12 of the 22 districts, a half-time superintendent was assigned to the district, resulting in the need for 6 FTE. In the other 10 districts where the enrollment was greater than 300 students a full-time superintendent was assigned to each. As shown in Table 3, the standard cost of a total of 16 FTE superintendents for the independent districts was $0.652 million. The total number of FTE superintendents which would be required by the standards statewide is 149.0. The average salary paid to a superintendent in fiscal 1986, according to the personnel reports submitted to the Office of Public Instruction, was $40,763. Thus, the total salary cost for superintendents to comply with the standards was $6.074 million for fiscal 1986.

One superintendent was assigned to the Helena school district, where the actual salary for the superintendent in fiscal 1986 was $52,800. The actual cost for the Helena superintendent was 29.5 percent greater than the statewide average cost of $40,763.

Principals

Section 204 of the accreditation standards requires that at least a half-time principal be hired in combined high school and elementary districts of 50 to 300 students, or in any school with an enrollment of 150 to 300 students, and that a full-time principal be hired if school enrollment is over 300 students. An additional half-time principal is required in junior and senior high schools if enrollment exceeds 500 students and in elementary schools if enrollment exceeds 650 students.

The standards do not require a principal in elementary districts with fewer than 150 students.

For the combined K-12 districts in this study, the principal required by section 204 is half-time for combined districts of 50 to 300 enrollment. For combined districts with an enrollment greater than 300, although it is not specifically stated in section 204(2)(c), a minimum of one full-time principal was considered standard. This assumption was necessary because the enrollment of a district may exceed 300 students, even though individual schools within the district are not large enough to have their own half-time or full-time principal.

As summarized in Table 4, 51 principal FTE would be required in 102 combined K-12 districts with enrollment of 300 or less, 278.5 FTE principals would be required in individual schools with enrollment of more than 150 students, and 8.5 FTE principals would be necessary for combined K-12 districts with an enrollment greater than 300. A total of 338.0 FTE principals would be required by the standards. The average salary paid to a principal in fiscal 1986, according to the personnel reports submitted to the Office of Public Instruction, was $36,031. Thus, the total salary cost for principals to comply with the standards was 338.0 multiplied by $36,031 or $12.179 million for fiscal 1986.

The calculation of principals for the Helena school district is illustrated in Table 4. The actual number of principals for Helena in fiscal 1986, 21.0 FTE, is 56 percent higher than the 13.5 FTE required by the standards. The actual average salary for those principals was $39,816, nearly $3,800 higher than the state average. The combination of more principals than required by the standards and the higher

salaries results in a total actual cost for principals for Helena in fiscal 1986 of $836,137. That amount is nearly 72 percent higher than the calculated cost which was based on using a statewide average salary.

Table 4
Number and Cost of Principals
Fiscal 1986

District Type	Calculated Number of Principals	Average Cost of Principals	Total Calc. Cost (In Millions)	Citation	Required FTE Princ/Dist-School
Statewide					
Independent < 150	0.0	$ -0-	$ 0.000	A.S.204(2)(a)	0
Combined 50-300	51.0	36,031	1.838	A.S.204(2)(b)(c)	0 - 0.5
Individual > 150	278.5	36,031	10.035	A.S.204(2)(d)(e)	0.5 - 1.5
Combined > 300	8.5	36,031	0.306	A.S.204(2)(e)	1.0
Totals	338.0	$36,031	$12.179		

School	Enrollment	Calculated Number of Principals	Average Sal. Per Principal	Total Calculated Cost	Actual Number Principals	Actual Total Cost	Diff. as % of Calc.
Helena							
Ray Bjork	150	0.5	$36,031	$18,016	0.5	$ 19,350	7.4
Jefferson	283	0.5	36,031	18,016	0.5	19,350	7.4
Central	267	0.5	36,031	18,016	1.0	39,370	118.5
Broadwater	238	0.5	36,031	18,016	1.0	39,370	118.5
Hawthorne	178	0.5	36,031	18,016	0.5	19,685	9.3
Bryant	230	0.5	36,031	18,016	1.0	39,370	118.5
Lincoln	150	0.5	36,031	18,016	1.0	38,030	111.1
CR Anderson	193	0.5	36,031	18,016	0.5	19,685	9.3
Warren	243	0.5	36,031	18,016	1.0	38,030	111.1
Darcy	321	1.0	36,031	36,031	1.0	38,030	5.5
Smith	318	1.0	36,031	36,031	1.0	39,370	9.3
Rossiter	508	1.0	36,031	36,031	1.0	39,370	9.3
4 Georgians	569	1.0	36,031	36,031	1.0	39,370	9.3
Helena Middle	465	1.0	36,031	36,031	2.0	79,970	121.9
Anderson Mid.	629	1.0	36,031	36,031	2.0	79,360	120.3
Helena High	1,361	1.5	36,031	54,046	3.0	122,750	127.0
Capital High	1,237	1.5	36,031	54,046	3.0	125,680	132.5
Total	7,340	13.5		$486,422	21.0	$836,140	71.9

District and Business Administration

The accreditation standards do not require any administrators at the district level, other than the superintendent. However, districts do incur costs for business administration, curriculum directors, or subject area coordinators, and their secretaries. Therefore, it is assumed that some costs for these functions must be recognized in the cost of complying with the standards.

The costs of district and business administration per ANB at the 50th percentile were determined for elementary and high schools in each of eight enrollment categories. The cost of complying with the standards for each district was then set at the lesser of the 50th percentile for that size category, or the actual cost for the district. This method of determining administrative costs assumes that costs for discretionary expenditures in excess of those experienced by one half of the districts in each enrollment category were beyond the level needed to comply with standards. Since costs of district and business administration include the costs of superintendents and secretaries, the costs for calculated superintendents and their secretaries were subtracted from the total amount calculated to arrive at costs for this additional administration. This calculated amount was negative for many high schools which split the cost of the superintendent between the high school and the elementary school on the trustees reports. In these K-12 districts the entire amount was subtracted at the high school level rather than estimating a calculated amount for district administration at the elementary level.

As shown in Table 5, the calculated costs for "other administration" in fiscal 1986 were $4.9 million. Total calculated costs for district and business administration were $12.7 million. The actual costs of administration of $15.4 million were 21 percent greater than the calculated costs.

Table 5
Cost of District Administration

	Calculated Cost Dist. & Business Admin.				Act Cost Dist & Bus Admin.	Difference as a % of Calculated
	Supts	Other	Secretaries	Total		
Statewide						
	$6,073,867	$4,851,439	$1,790,384	$12,715,690	$15,441,075	21.43
Helena						
Elementary	$ -0-	$138,571	$ -0-	$138,571	$138,571	0.00
High School	40,763	59,179	12,016	111,958	111,958	0.00
Total	$40,763	$197,750	$12,016	$250,529	$250,529	0.00

Also shown in Table 5 is the comparison of actual versus calculated costs of other administration for the Helena elementary and high school districts. As can be seen in the table, the calculated costs for Helena are equal to the actual costs because Helena districts are below the 50th percentile in costs per ANB for district and business administration.

Teachers

The accreditation standards specify maximum class-load sizes for the elementary schools and maximum daily student-loads for the teachers at the middle, junior high, and high school levels.

Elementary Teachers

Section 305 of the accreditation standards details specifically the maximum numbers of students which may be taught in any one classroom for a particular grade. The maximum number of students allowed per class, summarized in Table 6, range from 20 in multi-grade primary classes to 30 students in 5th-8th grade single-grade classes.

Table 6
Requirements of the Standards for Elementary Class Loads

Grade Level	Number of Students Multi-Grade Room	Number of Students Single Grade Room	Number of Students One Room School
K	20	24	18
1	20	26	18
2	20	26	18
3	20	28	18
4	24	28	18
5	24	30	18
6	24	30	18
7	26	30	18
8	26	30	18

If a school district has grades with enrollment other than the maximum allowed in single-grade rooms, there are three methods of staffing to accommodate these students. First, according to section 107 of the accreditation standards, aides may be hired to ease the load on the certified teachers in overloaded classrooms. Second, a single FTE teacher could be hired to teach students from two or more grades combined in a multi-grade room. Third, extra FTE teachers may be hired to staff additional single-grade classrooms.

The first of these methods, hiring an aide for an overloaded regular classroom, does not bring the school into compliance with the standards. The presence of an aide is considered only in determining

the severity of the deviation, according to section 107 of the accreditation standards. Therefore, the cost of aides has not been included with the cost of complying with the standards. In situations where classrooms were overloaded, additional certified staff instead of aides have been included in the calculations.

The use of a single teacher for more than one grade in a classroom is the most practical alternative in some situations. As shown in Table 6, one-room schools may have no more than 18 students, schools with more than one multi-grade room may have up to 20 students per class in kindergarten through 3rd grade, 24 per class in 4th through 6th grade, and 26 per class in the 7th and 8th grades. As a practical matter, because there are more students in some grades than others, it appears from the fall enrollment reports that when enrollment is 18 to 40 students, two teachers are required. When there are 41 to 56 students in the school, three teachers are required. When there are 57-74 students enrolled, four teachers are required. If there are 75 or more students, four teachers are not always sufficient to comply with the standards. It has been assumed, therefore, that schools with an enrollment of fewer than 75 students would be assigned teachers as indicated by the enrollment ranges listed above. Schools with 75 or more students are treated as schools requiring single-grade classrooms.

The Board of Public Education maintains that, while multi-grade classrooms in larger schools do comply with the standards as presented by method two, they are used only on a transitional or special situation basis, and their general use is not encouraged. In a memo to the Legislative Fiscal Analyst on February 8, 1988 the Executive Secretary

of the Board of Public Education stated that the standards for multi-grade classrooms were "put in place to allow for the operation of rural elementary schools which have one to four classrooms" and that "the OPI or the Board would never suggest combining grades to a town school."[12] In fact, schools with more than four teachers do not generally combine grades. Of the twenty-four elementary districts surveyed, 17 had more than four teachers. Of those, only 2 used multi-grade classes regularly. Single-grade classrooms have been used to calculate the elementary FTE teachers necessary to comply with the accreditation standards in schools with an enrollment of 75 or more. Table 7 shows the number of elementary and middle school FTE teachers which would be required statewide to comply with the accreditation standards. The calculated ratio is 20.80 students per teacher statewide at the elementary level. The actual salaries exceed the calculated salaries by 10.71 percent.

Table 7 also shows the calculated FTE by school and by grade for the Helena K-6 elementary schools. There were 155.0 actual FTE classroom teachers in the Helena elementary district in fiscal 1986. The actual number is less than the 164 calculated FTE number by 9.0 FTE or 5.5 percent. The calculated cost of teacher salaries is $3.66 million, 2.1 percent less than the $3.74 million actual salaries. This difference results from the combination of fewer actual teachers and higher teacher salaries in Helena in fiscal 1986.

The calculated FTE teachers are higher than the actual number in some schools, such as Jefferson and Central schools. For example, the calculated FTE teachers for the sixth grades in those schools was

increased by 1.0 FTE in each of those grades to accommodate the one student enrolled in excess of the maximum of 30 allowed in the sixth grade. Table 7 also shows that if the Helena district was considered as a whole, 124.5 FTE teachers would be required. This situation is discussed further in the following section.

Table 7
Numbers of Elementary Teachers

	Calculated FTE Teachers	Students Per Teacher	Calc Cost at $22,331 per FTE Teacher	Actual FTE Teachers	Actual Salaries	Diff. as a Percent of Calc.
State Total	5,212.5	20.80	$116,400,338	5,771	$128,872,201	10.71
Helena K-6	164.0	22.24	$3,662,284	155.0	$3,739,077	2.10

Helena Enrollment and Teachers by Grade

School		K	1	2	3	4	5	6	Totals	Act # of Teachers
Ray Bjork	Students	20	22	19	27	21	24	17	150	
	Teachers	0.5	1	1	1	1	1	1	6.5	6.5
Jefferson	Students	45	53	43	43	39	29	31	283	
	Teachers	1.0	3	2	2	2	1	2	13.0	11.0
Central	Students	49	55	31	38	28	35	31	267	
	Teachers	1.5	3	2	2	1	2	2	13.5	11.0
Broadwater	Students	38	34	36	29	32	42	27	238	
	Teachers	1.0	2	2	2	2	2	1	12.0	10.0
Hawthorne	Students	27	24	30	28	25	22	22	178	
	Teachers	1.0	1	2	1	1	1	1	8.0	8.0
Bryant	Students	42	38	30	33	27	29	31	230	
	Teachers	1.0	2	2	2	1	1	2	11.0	11.0
Lincoln	Students	25	16	20	27	25	18	19	150	
	Teachers	1.0	1	1	1	1	1	1	7.0	6.5
CR Anderson	Students		29	32	40	27	35	30	193	
	Teachers		2	2	2	1	2	1	10.0	11.0
Warren	Students	35	42	28	41	33	27	37	243	
	Teachers	1.0	2	2	2	2	1	2	12.0	11.0
Darcy	Students	52	56	54	37	44	48	30	321	
	Teachers	1.5	3	3	2	2	2	1	14.5	14.0
Smith	Students	43	54	43	48	41	41	48	318	
	Teachers	1.0	3	2	2	2	2	2	14.0	13.0
Rossiter	Students	79	89	82	70	53	53	82	508	
	Teachers	2.0	4	4	3	2	2	3	20.0	20.0
Four G's	Students	97	87	88	74	83	72	68	569	
	Teachers	2.5	4	4	3	3	3	3	22.5	22.0
Helena #1	Students	552	599	536	535	478	475	473	3,648	
	Teachers	15.0	31	29	25	21	21	22	164.0	155.0
Helena Dist #1 Overall	Students	552	559	536	535	478	475	473	3,648	
	Teachers	11.5	22	21	20	18	16	16	124.5	155.0

Teacher Efficiencies of Combining Schools Within Districts

The standards in section 304 deal specifically with class sizes in individual schools within a district. However, there is nothing in the standards to prevent districts from moving students between schools, adjusting school attendance boundaries, or closing individual schools, particularly at the elementary level, to operate more classes at maximum sizes allowed under the standards. As shown in Table 8 combining class enrollments within districts in fiscal 1986 could have resulted in the need for 302.5 fewer FTE teachers statewide when compared to a model where all classrooms in schools with more than 75 students were single-grade rooms.

Table 8
Teacher Efficiencies of Combining Schools Within Elementary Districts
Fiscal 1986

School Type	FTE No Combining by District	FTE Combining Schools by Dist.	Difference	Average Teacher Salary	Difference (Millions)
State-wide					
Elementary All Dist.	5,212.5	4,910.0	302.5	$22,331	$6.755
Elementary 5 Lgst Dist	5,212.5	4,993.5	219.0	$22,331	$4.890
Helena					
Helena K-6	164.0	124.5	39.5	$22,331	$0.882

Table 8 also shows that the salary cost of 219.0 of the 302.5 FTE teachers equal to $4.890 million could have been saved in the five largest elementary districts in fiscal 1986 if one or more schools in each had been closed (Great Falls, 48.0 FTE - Helena, 39.5 FTE K-6 plus 3.0 FTE, 7th and 8th - Missoula, 35.0 FTE - Butte, 24 FTE - Billings,

69.5 FTE). If one or more schools in these cities were closed, there would be additional savings in administration and plant costs associated with those closed schools. If Helena combined its K-6 schools the teacher FTE could be reduced to 124.5, as shown in Tables 7 and 8. The transfer of students from the closed schools would cause the enrollment in each grade to be near maximum for that grade.

For purposes of determining the cost of complying with the accreditation standards, each school is considered individually in this report, according to section 304, and no combining of schools within districts is considered.

FTE Teachers in 7th and 8th Grade Elementary Program

Elementary districts that do not choose to offer a departmentalized program at the 7th and 8th grade level are required to comply with the teacher-load requirements of section 305 of the accreditation standards. This section allows a maximum of thirty 7th and 8th grade students in a single-grade classroom and a maximum of twenty-six 7th and 8th grade students in a multi-grade classroom. In fiscal 1986, 129 districts with small 7th and 8th grade classes chose to meet elementary school standards rather than middle school standards. For the purposes of determining the cost of complying with the accreditation standards, the 129 districts are considered as elementary schools, and the FTE teachers are calculated according to the previously discussed requirements of section 305 of the accreditation standards.

FTE Teachers in Departmentalized Schools

Section 304 of the accreditation standards deals with the teacher load in middle, junior high, and high schools. This section requires that a junior or senior high school have at least 4.0 FTE, including librarian and guidance counselor. It also requires middle schools with an enrollment under 60 students to have a minimum of 2.5 FTE and those with an enrollment over 60 to have at least 3.0 FTE, including librarian and guidance counselor.

The standards require: 1) In section 304(4) that class size not exceed 30 except in typing and physical education where the limit is 45 students, while study hall is counted at 15 students regardless of the number of students attending. There are no limits on musical groups; 2) In section 304(6) the number of students assigned to any one teacher per day may not exceed 160, except in typing and physical education where the limit is 240 students. There are no limits on musical groups; and 3) the number of clock hours a teacher may have student responsibility may not exceed 28 per week.

In order to determine the number of teachers required at the middle school, junior high school and high school level, a minimum number of teachers was determined. The minimum number was that number required to operate a hypothetical school with maximum class enrollments of 30 per class, the maximum allowed in most subjects, for each of four high school years. This resulted in the conclusion that five full-time teachers would be required to operate a high school of 120 enrollment and meet the requirements of standards. Extending this teaching arrangement to larger schools was a matter of replicating the

five teachers for each additional 120 students. The following schedule of classes will illustrate the calculation.

Table 9
Class Schedule for Hypothetical School
120 Students

	Class Period							Total Assigned Students
	1	2	3	4	5	6	7	
Teacher 1	F-30	S-30	J-30	Sr-30	PREP	F-30	F/S-40	190
Teacher 2	S/J-30	F-30	S-20	J-30	Sr-30	PREP	F/S-20	160
Teacher 3	S/J-30	J/Sr-20	F-20	S-30	J-30	Sr-30	PREP	160
Teacher 4	PREP	J/Sr-20	Sr-30	F-30	S-30	J-30	Sr-30	170
Teacher 5	Sr-30	J/Sr-20	F/S-20	PREP	F-30	S-30	J-30	160
Total Students	120	120	120	120	120	120	120	

F = Freshmen S = Sophomores J = Juniors Sr = Seniors PREP = Preparation Period

As the last column in Table 9 indicates, the resulting schedule assigns all teachers at least 160 students. Teachers 1 and 4 teach in excess of 160 students, each offering one or more classes in music, physical education, or typing, or being in charge of study halls. Each teacher is allowed one preparation period. No class has in excess of 30 students except the 7th period class of Teacher 1 which is presumably music, physical education or study hall. All students are in a teacher supervised class during all seven periods of the day and no student is counted more than once in any period. The majority of classes, 22 of 30, have 30 students, the maximum allowed by the standards for most subjects. It would be impossible to add another student in this school

without exceeding a class size limit, a teacher assignment limit, or both. This schedule shows nearly the maximum relationship of students to teachers which would generate a student-teacher ratio of 24:1.

The actual student-teacher ratio that a school could manage is influenced not only by accreditation standards but by situational necessities. Situational necessities include: 1) the number of students attending the school; 2) the availability of teachers willing to work part time; 3) the availability of teachers who are certified in more than one subject area; 4) the existence of combinations of attached high schools, middle schools or junior high schools with whom teachers may be shared; 5) the allowance of one period per day for each teacher for preparation time.

Each of these factors affect the efficiency with which a school may operate. For example, if a school's only English teacher is currently teaching the maximum number of students allowed by standards and the school has one more student, another teacher must be added if a part-time teacher is not available. In this example where part-time teachers are not used, if one student is added, five additional teachers must be hired. The resulting student-teacher ratio for the school drops to 12.1:1. As schools grow larger the drop in overall student-teacher ratio is smaller with the addition of one student. For example, if the school has 1,200 students evenly divided among the grade levels, 50 teachers could handle the teaching at a ratio of 24:1. With one additional student, the added five teachers would only lower the student teacher ratio to 21.8:1. This example illustrates the situational problem faced by many districts where the number of students are not

exactly equal to the standard increments and teachers must be hired on a full-time basis. It has been assumed in these calculations that teachers must be hired on a full-time basis, that each teacher is given one preparation period per day, and that teachers can be obtained who have the necessary certifications to offer the required curriculum. It is also assumed that teachers are added in increments of five.

In the above example it was assumed that enrollment was evenly divided among classes. If a school had a student enrollment of 120 students evenly divided among the four high school levels, there would be a maximum of 30 in a class. Such a school could be staffed with five teachers with a student-teacher ratio of 24:1 as shown in Table 9. However, the student enrollment is rarely, if ever, optimal as class sizes from year to year vary and enrollments in any class seldom coincide with the maximum allowable. This means that schools must operate at lower student-teacher ratios as some classes cannot be filled to the limit allowed in the accreditation standards. For this reason, in applying the calculation to the schools, it is assumed that the school enrollment cut-off for the first five-teacher increment would be 100 rather than 120 students. Table 10 lists the teacher increments and the maximum and minimum student-teacher ratios that could result in each school enrollment category.

Table 10
Teacher Calculation Table for Departmentalized Schools

Student Enrollment	# FTE Teachers	- Student-Teacher Ratios - Minimum	Maximum
0 to 100	5	0.0	20.0
101 to 220	10	10.1	22.0
221 to 340	15	14.7	22.7
341 to 460	20	17.1	23.0
461 to 580	25	18.4	23.2
581 to 700	30	19.4	23.3
701 to 820	35	20.0	23.4
821 to 940	40	20.5	23.5
941 to 1060	45	20.9	23.6
1061 to 1180	50	21.2	23.6
1181 to 1300	55	21.5	23.6
1301 to 1420	60	21.7	23.7
1421 to 1540	65	21.9	23.7
1541 to 1660	70	22.0	23.7
1661 to 1780	75	22.1	23.7
1781 to 1900	80	22.3	23.8
1901 to 2020	85	22.4	23.8

The total number of FTE high school teachers and the salary cost required to comply with the accreditation standards are shown in Table 11. In fiscal 1986, $52.1 million in salaries would have been paid to 2,335.0 FTE teachers. The actual paid amount of $61.7 million is 18 percent higher than the calculated salaries.

The $5.7 million actual salaries for the Helena middle schools and high schools, as shown in Table 11, was 49 percent higher than the calculated amount of $3.8 million. This difference was the result of both more FTE teachers and higher average salaries in Helena.

Table 11
Number and Cost of Teachers Required to Comply with Standards
Fiscal 1986

District Type	Enrollment	Calculated FTE	Average Salary	Calc. Total Salaries (Millions)	Actual FTE	Actual Salaries (Millions)	Diff. as % of Calc. Salaries
			Statewide				
High School	43,251	2,335.0	$22,331	$52.143	2,763	$61.7*	18.33
			Helena				
Helena Middle	465	25.0	22,331	0.558	27.3	0.721	29.2
CRA Middle	629	30.0	22,331	0.670	33.0	0.871	30.0
Helena H.S.	1,361	60.0	22,331	1.340	76.0	2.016	50.4
Capital H.S.	1,237	55.0	22,331	1.228	77.0	2.047	66.7
Total	3,692	170.0		$3.796	213.3	5.655	49.0

*State average salary

Counselors

Section 406(2) requires that departmentalized schools have a minimum of one FTE counselor for each 400 students. No school may provide less than one hour per day or five hours per week of counseling services.

In high schools of 100 or fewer students, and in middle schools with fewer than 75 students, the one hour counseling requirement of the standards is fulfilled by the minimum number of regular teaching FTE - 5.0 FTE at the high school level, 2.5 FTE teachers in middle schools with fewer than 60 students, and 3.0 FTE teachers in middle schools with more than 60 students. In all other middle schools and high schools counselor FTE were assigned in addition to the regular teaching FTE.

Counselors are assigned at the rate of one counselor for every 400 students. This rate requires that a minimum of two periods of counseling service per day be available in order for high schools with enrollments greater than 100 and middle schools with enrollments of 75 or greater to comply with the standards. Thirty-three of forty sampled districts which had departmentalized programs conducted seven-period days. Therefore, the minimum of two periods of counseling service is calculated on the basis of seven periods per day, because that is the system used by the majority of the districts. This results in a minimum of 0.285 FTE counselor for these schools. Increases in required counseling services are then calculated in one-period increments. For example, a school with an enrollment of 110 students would have a calculated counselor FTE of 110/400 or 0.275 FTE. This would be rounded up to the full two-period minimum of 0.285 FTE. However, if the school had an enrollment of 130 students, the calculated FTE would be 130/400 or 0.3 FTE. That is more than two periods, and the FTE would be rounded up to three periods out of seven or 0.428 FTE counselor. It was assumed counselors could be added on a part-time basis.

As shown in Table 12, 157.2 FTE counselors are required for grades seven through twelve, in addition to the counseling services provided by the regular teachers in high schools with five or fewer teachers and in middle schools with three or fewer teachers. The difference between the actual and calculated costs for counselors is just over 100 percent.

Table 12
Number and Cost of Counselors to Comply with Standards
Fiscal 1986

School	Enrollment 7-12	Calculated FTE Counselors	Calculated Total Cost FTE X 25,952	Actual FTE	Actual Cost	Difference as Percent of Calc.
Total State	67,865	157.2	$4,079,654	318.3	$8,260,522*	102.5
- Helena -						
Helena Middle	465	1.29	$ 33,478	2.0	$ 61,130	82.6
CR Anderson Middle	629	1.71	44,378	2.0	64,630	45.6
Helena High	1,361	3.43	89,015	3.0	98,140	10.3
Capital High	1,237	3.14	81,489	3.0	97,220	19.3
Total	3,692	9.57	$248,360	10.0	$321,120	29.3

*Using average salary

The detail for counselors in Helena is also shown in Table 12. No counselors are required in K-6 schools. The calculated number of counselors at the middle and high school level is 9.57 FTE compared to 10.0 actual FTE. The difference in cost is $72,760. The actual cost for counselors in Helena is 29.3 percent greater than the calculated cost, a difference that is almost entirely the result of salaries which are higher than the statewide average counselor salary.

As shown in Table 12, 157.2 counselors were required to comply with the accreditation standards in fiscal 1986, in addition to regular FTE teachers. The average salary of $25,952 per counselor FTE for fiscal 1986, as determined from the fall personnel reports, multiplied by the 157.2 calculated counselors yields a standard cost of $4.080 million.

Librarians

Section 404 of the accreditation standards details the FTE librarians which are required in each type of school. These requirements are summarized in Table 13. The number of required librarians varies from one librarian for 800 students at the elementary level to one librarian for 301-500 students in secondary schools. A volunteer or hired library aide shall be available for each librarian in high schools.

Table 13
Standards for Librarians

School Size and Type	Librarians per Students		Periods-hours/day	Aides	Citation
Elementary	1 to 800	or	1*	No	A.S.404(4)
Secondary					
<100 Students			2	No	A.S.404(3)(a)
101-300			3	No	A.S.404(3)(b)
301-500			7	Yes	A.S.404(3)(c)
501+	0.5 for each addit. 500			Yes	A.S.404(3)(d)

*Whichever is greater

Librarians are calculated by dividing enrollment by 800. As with the counselors, librarian FTE are incremented by full periods, based on a seven-period day. It is assumed librarians can be obtained on a part-time basis where necessary. The standards allow required aides to librarians in junior high and high schools over 300 students to be volunteers or student aides. No aides are required in smaller junior high or high schools or in elementary schools. For the purposes of determining the cost of complying with the accreditations standards, it has been assumed that in junior high and high schools of over 300

students, student volunteers would be available. Therefore, no cost has been assigned for library aides.

The total calculated number of librarians required by the standards is 237.3 FTE, as shown on Table 14. The average salary cost per librarian for fiscal 1986 as determined from the fall personnel reports was $22,560. That salary cost, multiplied by 237.3, is $5.354 million, as shown in in table.

Table 14
Number and Cost of Librarians to Comply with Standards
Fiscal 1986

School	Enrollment	Calculated FTE Librarians	Total Cost FTE X 22,560	Actual FTE	Actual Cost	Difference as Percent of Calc.
Total State		237.3	$5,354,000	325.2	$7,337,000*	37.04
- - - - - - - - - - - - - - - - - - - -			Helena		- - - - - - - - - - - - - - - - - - - -	
Ray Bjork	150	0.285	$ 6,430	4.0	$ 85,813	(25.9)
Jefferson	283	0.428	9,656	Shared		
Central	267	0.428	9,656	Shared		
Broadwater	238	0.285	6,430	Shared		
Hawthorne	178	0.285	6,430	Shared		
Bryant	230	0.285	6,430	Shared		
Lincoln	150	0.285	6,430	Shared		
CR Anderson	193	0.285	6,430	Shared		
Warren	243	0.285	6,430	Shared		
Darcy	321	0.428	9,656	Shared		
Smith	318	0.428	9,656	Shared		
Rossiter	508	0.714	16,108	Shared		
Four Georgians	569	0.714	16,108	Shared		
Helena Middle	465	1.000	22,560	2.0	44,290	96.3
CR Anderson Middle	629	1.500	33,840	1.8	44,388	31.2
Helena High	1,361	2.000	45,120	2.0	53,130	17.8
Capital High	1,237	2.000	45,120	2.0	53,900	19.5
Total	7,340	11.635	$262,486	11.8	$281,521	7.3

*Using average salary

Table 14 also shows the librarian detail for the Helena schools. The thirteen elementary schools share 4.0 FTE librarians. That number is 1.13 FTE fewer librarians than were actually required to comply with the standards. However, when the FTE librarians at the middle and high schools are included, the Helena district has the required 11.6 librarian FTE. The difference between the calculated and actual costs of 7.3 percent is the result of the higher than average salaries paid for librarians in Helena.

Secretaries

The standards require in sections 202 and 207 that board minutes, teacher files, and student records be maintained. They provide in section 406 that there be space and facilities for clerical assistance for the counselors. However, in no case do the standards specify any particular amount of secretarial help. In order to determine the cost of complying with the standards, it has been assumed that the cost of secretarial help should be included.

The following assumptions have been made to determine the number of secretaries that would be necessary to fulfill the requirements of the standards. As shown in Table 15, 6 of the 17 elementary districts which had administrators maintained a ratio of one or fewer secretaries per administrator. Nineteen of 24 high school districts surveyed maintained a ratio of two or fewer secretaries per administrator for all secretarial and clerical functions, including service to the counselor.

Table 15
Secretarial FTE per Administrator FTE

District Size-ANB	Elementary Low Cost District	Elementary Med. Cost District	Elementary High Cost District	High School Low Cost District	High School Med. Cost District	High School High Cost District
1-25	--	--	--	1.00	0.91	1.43
26-50	--	--	--	0.50	0.56	1.00
51-100	--	1.00	2.00	0.67	0.67	3.33
101-300	0.63	1.00	1.67	1.00	1.43	1.00
301-600	0.77	1.67	2.50	1.00	2.00	1.25
601-1200	1.11	1.00	1.00	2.00	2.50	0.91
1201-2400	1.11	1.43	1.25	2.50	2.50	2.00
2400+	1.43	1.25	2.00	2.00	5.00	2.00

Elementary Avg. Secretarial/Administrators FTE = 1.40
High School Avg. Secretarial/Administrators FTE = 2.10

One secretary FTE was required for each superintendent FTE and was recommended for each principal in the 1976 school accreditation standards. It has been assumed that a ratio of one secretary per superintendent or one secretary per principal is sufficient to comply with the standards at the elementary level. It has been assumed that one secretary per superintendent FTE and two secretaries per principal FTE are required in high schools, except in districts of fewer than 300 students. In those districts, as indicated by the survey, one secretary per administrator was considered sufficient.

The data from the sample of 48 schools indicated that the salary for a secretary did not vary according to school size or expenditure per ANB. Therefore, it is assumed that the average secretarial salary for the sample of $12,016 is an accurate average salary to use in determining the cost of complying with the standards. No data for secretaries are available from the Office of Public Instruction.

The total number of calculated standard secretarial FTE for fiscal 1986 is 571, as shown in Table 16. The number of secretaries is multiplied by an estimated average cost per secretary of $12,016 to determine the $6.86 million calculated cost. Actual costs for secretaries were $7.3 million, 6.9 percent greater than the calculated cost.

Table 16
Number and Cost of Secretaries to Comply With the Standards

School	Calculated # Secretaries	Total Cost FTE X 12,016	Actual FTE	Actual Cost	Diff as % of Calculated
Total State	571.0	$6,861,136	N/A	$7,337,000	6.9
- Helena -					
Ray Bjork	0.5	6,008	1.00	12,900	114.7
Jefferson	0.5	6,008	1.00	12,900	114.7
Central	0.5	6,008	1.00	12,900	114.7
Broadwater	0.5	6,008	1.00	12,900	114.7
Hawthorne	0.5	6,008	1.00	12,900	114.7
Bryant	0.5	6,008	1.00	11,900	98.1
Lincoln	0.5	6,008	1.00	11,650	93.2
CR Anderson	0.5	6,008	1.00	12,650	110.6
Warren	0.5	6,008	1.00	10,400	73.1
Darcy	1.0	12,016	1.00	10,400	13.4
Smith	1.0	12,016	1.25	15,808	31.6
Rossiter	1.0	12,016	2.00	25,800	114.7
Four Georgians	1.0	12,016	2.00	25,050	108.5
Helena Middle	1.0	12,016	2.30	23,582	96.3
CR Anderson Middle	1.0	12,016	2.75	31,474	162.9
Helena High	3.0	36,048	7.00	82,930	130.1
Capital High	3.0	36,048	9.00	102,693	185.7
District	1.0	12,016	3.00	49,080	308.5
Total	17.5	210,280	39.30	477,917	127.3

Table 16 shows the detail for secretaries for the Helena schools. The calculated secretarial FTE was 17.5, compared to 39.3 actual FTE. Helena's average secretarial salary is $12,161, nearly equal to the statewide average of $12,016. The actual costs are $478,000, 127 percent greater than the calculated cost. This difference is almost

entirely because of the difference in FTE secretaries. However, it must be noted that the costs for two of the three district secretaries are included with the costs of district and business administration.

Temporary salaries

The standards do not address the need for temporary substitute teachers. However, it must be assumed that a substitute is necessary when a regular teacher is unable to be present. Actual temporary salaries for regular and vocational programs statewide for fiscal 1986 were $3,860,908. It may be assumed that, if there are fewer teachers, fewer substitutes should be needed to teach their classes. As shown in Table 17, adjusting actual temporary salaries by the ratio of calculated teacher salaries to actual teacher salaries for each district would result in a necessary standard cost for substitute teachers of $3.2 million for fiscal 1986. This method provides temporary teachers for each district based on its own experience in 1986. It does not allow all districts of similar size the same amount.

Table 17
Temporary Salaries - Fiscal 1986

Actual Temp. Salaries	Actual Teacher Salaries	Calculated Teacher FTE	Salaries Calc. FTE x 22,331	Average Ratio Calc. to Act. Salaries	Calc. Temp. Sal. (Act Temp x Ratio)
			Statewide		
$3,861,000	$204,088,377	7,547.5	$168,543,000	0.823	$3,178,000
			Helena		
$179,953	$10,466,861	334.0	$7,458,554	0.713	$128,306

Also shown in Table 17 is the calculation of the standard temporary salaries for the Helena schools. Actual temporary salaries were $179,953. This amount was adjusted by the ratio of calculated teacher salaries to actual teacher salaries to determine temporary salaries for Helena of $128,306.

Use of Average Salaries

Salary levels are not a requirement of the standards. However, the treatment of salaries has a large effect on the calculated cost of complying with the standards. There are two ways to calculate salary costs necessary to comply with the standards. Statewide average salaries or the average salaries by district could be used to calculate the costs of complying with the standards.

Using the statewide average cost assumes any district can comply with the standards by hiring the calculated number of personnel at the statewide average salary. The statewide average salaries are shown in Table 18 for superintendents, principals, teachers, counselors, and librarians.

Table 18
Average Salaries for School Personnel
Fiscal 1986

Personnel	Superintendent	Principal	Teacher	Counselor	Librarian
Avg. Salary	$40,763	$36,031	$22,331	$25,952	$22,560

In reality, not all districts pay the same average salaries for each category of personnel. In fact, average salaries vary widely among districts, depending on the location of the district and the education

and experience of the personnel hired. For example, McCormick district in Lincoln County has two teachers whose actual total salary is $25,870 for an average of $12,935. When their salaries are calculated at the statewide average of $22,331 per teacher, the total calculated salary cost is $44,662. The teachers in this district are paid $9,000 less than the Montana average per teacher. In this district, as shown in Table 19, using the statewide average salary results in calculated costs which are 130 percent of actual costs. If the costs are calculated using the actual average for the district, the costs of complying with the accreditation standards for McCormick School would be 90 percent of the actual costs. By keeping its teacher cost down, McCormick school has spent less than a similar school which has paid average salaries.

Table 19
Standard Costs for McCormick School Using
State Average Salaries and District Average Salaries
Fiscal 1986

	Teacher Cost	Total Benefits	Total Calculated Costs	Total Actual Costs	Calculated as % of Actual
Using State Average Salary 2 teachers	$44,662	$10,353	$76,279	$58,764	130
Using District Average Salary 2 teachers	$25,870	$5,997	$53,131	$58,764	90

If district average salaries are multiplied by the calculated teacher FTE for each district, the cost for teachers is 1.0 percent higher than when statewide average salaries are multiplied by the calculated teacher FTE. This is because more teachers not required by the standards are in districts with above average salaries. However, as with McCormick

School, the differences in individual districts which have salaries much lower than the average may be 40 percent or more. Using an average statewide salary overstates the cost of supplying the standard-mandated program in schools which pay salaries which are significantly less than average. Conversely, the cost of supplying a standard program is understated for districts which pay a higher than average salary when the statewide average salary is used to calculate standard costs. While the effect of average salaries on statewide results is minimal, it is a significant factor when looking at individual districts. Therefore, because the use of statewide average salaries causes major distortions in the costs for individual district, the district average salaries have been used to calculate the costs of complying with the accreditation standards. The major disadvantage of this method is that districts with low salaries may tend to be "fixed" at that level when funding is determined. That disadvantage is outweighed by the fact that the use of district average salaries accurately reflects the current cost of operation in all districts.

Benefits

Benefits including retirement, social security, and unemployment compensation paid from the retirement fund, worker's compensation paid from the insurance fund, and health insurance and life insurance paid from the general fund, are either required by statute or are routinely paid as a part of the employment package in school districts. The total amount of salaries and benefits paid by school districts in fiscal 1986 was determined from the trustees reports. An amount of benefits equal

to 23.18 percent of all salaries was paid for fiscal 1986, as shown in Table 20.

Table 20
Salaries and Benefits Paid by Schools
Fiscal 1986

Salaries	Life, Health Workers' Comp	Retirement & Soc. Sec. Unempl. Comp	Total Benefits	Benefits as % of Salaries
$361,778,910	$29,497,566	$54,371,699	$83,869,265	23.18

The total calculated salaries for each district are multiplied by 23.18 percent to calculate benefits for all categories of personnel. The total calculated benefits are $48.8 million.

Library Materials

The standards in section 404, specifically define the minimum amounts of library materials which must be purchased each year. These requirements are summarized in Table 21. The amount schools must spend for library materials, plus $1.80 per student for media software, are defined for school sizes as shown. Those amounts vary from a minimum of $180 in the smallest elementary school to a minimum of $10,800 in the largest high school.

Table 21
Standard Requirements for Library Materials

School	Total Dollars		Cost per Student	Media Software Per Student
Elementary				
300 or less students	$ 180.00	or	$8.10*	1.80
over 300 students	2,430.00	+	$4.50/stud. over 300	1.80
Departmentalized				
50 or less	900.00			1.80
51-100	1,440.00			1.80
101-200	1,800.00			1.80
201-500	3,600.00	or	$9.00*	1.80
501-1000	5,400.00	or	7.20*	1.80
1001-1800	7,200.00	or	6.30*	1.80
1800+	10,800.00	or	5.40*	1.80

*The greater of the "total dollars" or "Cost per Student" times enrollment.

The required amounts of library materials by district are shown in Table 22. The total calculated cost for library materials was $1.658 million for fiscal 1986.

Table 22
Costs for Library Materials and Supplies
Fiscal 1986

Calculated Cost	Actual Cost	Difference as % of Calculated
State-wide		
$1,658,000	$3,151,424	90.1
Helena		
$64,617	$195,523	202.6

Table 22 also compares the actual cost of library materials and supplies to the calculated cost in the Helena schools. The actual costs were $195,523, over 200 percent higher than the calculated cost.

Miscellaneous Educational Costs

Miscellaneous educational costs include costs for textbooks and periodicals, supplies, other costs such as for telephone, printing, postage, travel, and major equipment, plant costs, and comprehensive insurance. These costs, while not required by the standards, have been considered when calculating costs of complying with the accreditation standards.

Table 23 shows how the fiscal 1981, 1983, and 1986 costs have varied in comparison to the Consumer Price Index. The costs for administrators, teachers, plant, textbooks, and library materials have generally increased in line with the Consumer Price Index. Other miscellaneous costs and costs for insurance have increased more than 200 percent since fiscal 1979.

Table 23
Percent Change in Selected Educational Costs Since Fiscal 1979 Compared to the Consumer Price Index, Teacher FTE and Average Salaries (Millions)

Fiscal Year	CPI	Admin. Salaries	Teacher Salaries	Plant O & M	Texts and Library Material	Other Costs	Ins.
1979	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1981	25.8	10.5	14.6	21.2	7.0	45.2	20.8
1983	42.3	33.3	40.2	50.1	21.7	79.0	45.8
1986	57.6	59.6	58.2	69.7	58.9	245.2	208.3

Texts and Supplies

The standards state in section 403(2) that (elementary) instructional course material or textbooks...must be reviewed every five years. There is no other direct reference to texts or supplies. However, it is intuitively obvious that these materials are necessary for a basic education and must be included as part of the cost of complying with the accreditation standards.

Textbooks and Periodicals

It was assumed that costs for textbooks and periodicals were related most directly to the numbers of students in a school. Therefore, 100 percent of the costs of these items have been included with the cost of complying with the standards. The costs of textbooks and periodicals have been included with the costs of supplies in Table 24.

Supplies

According to data from the trustees reports, expenditures for supplies vary from $7 to $947 per ANB. The costs per ANB at the 50th percentile were determined for elementary and high schools in each of eight enrollment categories. The cost of complying with the standards for each district was then set at the 50th percentile for that category, or the actual cost for the district, whichever was less. This method of determining costs of discretionary expenditures for supplies assumed that the level of expenditure not exceeded by 50 percent of the districts in each enrollment category would be adequate to comply with the standards.

As shown in Table 24, the total costs for textbooks, periodicals, and supplies in fiscal 1986 were $19.3 million. That amount was 14.4 percent greater than the calculated amount of $16.9 million.

Table 24
Costs of Supplies and Textbooks
Fiscal 1986

	Calculated Costs	Actual Costs	Difference as a % of Calculated
		Statewide	
Statewide	$16,887,583	$19,320,796	14.4
		Helena	
Elementary	$246,958	$255,056	3.3
High School	253,956	253,956	0.0
Total	$500,914	$509,012	1.6

Also shown in Table 24 is the comparison of actual versus calculated costs of textbooks and supplies for the Helena elementary and high school districts. As can be seen in the table, the actual costs for Helena elementary schools are 3.3 percent greater than the calculated costs because the elementary schools are above the 50th percentile in costs of supplies per ANB. The costs of books and supplies for the high schools are equal to the actual costs because the Helena district is below the 50th percentile in costs of supplies per ANB.

Plant Costs

Section 500 of the accreditation standards requires that school facilities be maintained in a manner such that they will meet health, fire, and building codes. Specific expenditures are not defined.

There are a number of difficulties in determining a standard cost for plant and maintenance. First, some plant costs, such as those associated with extracurricular activities, are not required by the standards. However, no data is available to determine the amount of costs which are not required by the standards. Second, it has been demonstrated that it is possible in some districts to close schools and still comply with the standards. Closure of schools would result in reduced plant costs. Again, no data is available to assess this saving. Finally, facilities vary in their levels of energy efficiency. Different rates are charged for energy in different parts of Montana. Even the climate varies from mild to extreme in different parts of the state, thus requiring different levels of energy consumption for equal buildings. Older facilities require more repairs than do newer ones. In addition, custodial services are hired by some districts and contracted by others, resulting in potentially different costs for substantially equal districts. The lack of detailed data, the legitimate differences in costs, and the large number of schools make assessing the minimum legitimate cost needed to comply with standards difficult.

In contrast to the more discretionary expenditures for other costs, expenditures for plant are relatively fixed. Therefore, it is assumed that a 90th percentile, rather than the 50th percentile used previously, would be an appropriate level at which to calculate plant costs. According to data from the trustees reports, expenditures for plant vary from $20 to over $3,000 per ANB. The costs per ANB at the 90th percentile were determined for elementary and high schools in each of eight enrollment categories. The cost of complying with the standards

for each district was then set at the lesser of 90th percentile for that category or the actual cost for the district. This method of determining costs assumed that the expenditure level per student at which 90 percent of the districts in each category could operate was sufficient to meet the fixed costs of plant.

As shown in Table 25, the total costs for plant in fiscal 1986 were $63.5 million. That amount was 3.5 percent greater than the calculated amount of $61.4 million.

Table 25
Plant Costs
Fiscal 1986

	Calculated Costs	Actual Costs	Difference as a % of Calculated
		Statewide	
Statewide	$61,353,163	$63,510,096	3.5
		Helena	
Elementary	$1,948,951	$1,948,951	0.0
High School	1,257,421	1,257,421	0.0
Total	$3,206,372	$3,206,372	0.0

Also shown in Table 25 is the comparison of actual versus calculated costs of plant for the Helena elementary and high school districts. As can be seen in the table, the actual plant costs are equal to the calculated costs because Helena schools are below the 90th percentile in costs per ANB for plant.

Other Non-Salary Costs

The standards do not require any other expenditures for regular or vocational programs. It could be assumed, however, that costs for

items such as for telephone, postage, travel, and major equipment, are necessary costs of maintaining a school. Therefore, the standard cost for these general fund expenditures is included at the lesser of actual costs or costs at the 50th percentile. The statewide actual costs of $15.9 million are 47 percent greater than the calculated costs of $10.8 million as shown in Table 26. As can be seen in the table, actual costs for the Helena elementary district are equal to calculated costs because the expenditures are below the 50th percentile. Actual costs for the Helena high schools are 39.1 percent higher than the calculated costs because expenditures per ANB in the high schools are above the 50th percentile.

Table 26
Other Non-Instructional Costs
Fiscal 1986

	Calculated Costs	Actual Costs	Difference as a % of Calculated
		Statewide	
Statewide	$10,798,347	$15,878,671	47.0
		Helena	
Elementary	$255,823	$255,823	0.0
High School	400,354	556,926	39.1
Total	$656,177	$812,749	23.9

Comprehensive Insurance

Comprehensive insurance, paid through the insurance fund, is authorized by section 2-9-212, MCA. It is a necessary expense to the school districts because the Montana Constitution does not provide for sovereign immunity. Therefore, it must be included as part of the cost

of complying with the accreditation standards. The total expenditures for comprehensive insurance for included programs were $5.1 million for fiscal 1986, as shown in Table 27.

Table 27
Comprehensive Insurance
Fiscal 1986

Standard Cost	Actual Cost	Difference as % of Standard
	State-wide	
$5,139,289	$5,139,289	-0-
	Helena	
$138,265	$138,265	-0-

Table 27 shows that the standard cost for insurance of $138,265 in fiscal 1986 for the Helena schools have been included at 100 percent of actual costs.

Total Costs of Complying With the Standards

The costs of complying with the accreditation standards were determined based on requirements of both the current accreditation standards and Montana statute. The standards require programs which are funded through the general fund. Related expenditures for retirement, workman's compensation, and unemployment insurance are required by Montana code. Expenditures for insurance are allowed by Montana code and were considered necessary expenditures because the Montana Constitution does not provide for sovereign immunity.

Calculated expenditures presented here are not a recommendation on how to fund schools. They are an estimation of what it costs schools to comply with the current accreditation standards.

Assumptions and estimations have been made in the areas of salaries, benefits, combining of classrooms, numbers of secretaries required, costs of books, supplies, and other costs, and in the calculation of the costs of comprehensive insurance. Only regular and vocational educational programs have been included in these costs. No savings which might be realized from the consolidation of school districts have been considered. As shown in Table 28, the calculated cost of complying with the accreditation standards for these programs was $355.3 million in fiscal 1986. That amount was 81.51 percent of the actual expenditures on those programs in fiscal 1986.

Table 28
Costs of Complying With the Standards by Fund

	Actual Costs	Calculated Costs	Calculated as % of Actual
		Statewide	
General Fund	$383,396,052	$314,937,574	82.14
Retirement	45,268,559	33,886,970	74.86
Insurance	7,237,607	6,491,099	89.69
Totals	$435,902,218	$355,315,643	81.51
		Helena	
General Fund	$18,653,936	$15,144,262	81.19
Retirement	2,443,885	1,666,385	68.19
Insurance	257,639	216,910	84.19
Totals	$21,355,460	$17,027,557	79.73

Table 28 also shows the proportion of the statewide calculated cost of complying with the accreditation standards which come from the general, retirement, and insurance funds. The calculated costs were 82 percent of the actual general fund costs for required regular education

and vocational programs. Calculated costs for retirement were 75 percent of actual costs for regular and vocational programs. Calculated costs of $6.5 million for insurance included $5.1 million in comprehensive insurance and $1.4 million in worker's compensation which is estimated must be paid on required personnel. These amounts were 90 percent of the actual costs of insurance.

Also shown in Table 28 are similar comparisons for Helena. For fiscal 1986, 81 percent of the actual general fund expenditures, 68 percent of the retirement fund expenditures, and 84 percent of the insurance fund expenditures were necessary to comply with the accreditation standards.

The calculated general fund costs of complying with the standards are compared in Table 29 to the foundation plus permissive amounts available for fiscal 1986. The foundation plus permissive amounts were $282.0 million, compared to calculated costs of $315.5 million. As can be seen in the table, the foundation plus permissive programs funded 89.40 percent of the costs of complying with the accreditation standards in fiscal 1986.

For Helena for fiscal 1986, Table 29 shows that the foundation plus permissive amounts of $11.4 million were 82 percent of the $14 million in general fund expenditures which were required to comply with the accreditation standards.

Table 29
General Fund Required to Comply With the Standards
Compared to Foundation Plus Permissive Funding
Fiscal 1986

Calculated General Fund	Foundation Plus Permissive	Foundation as % of Calculated General Fund
	Statewide	
$314,937,574	$282,100,866	89.6
	Helena	
$15,144,262	$12,774,402	84.4

CHAPTER 4

SUMMARY AND CONCLUSIONS

The findings of this research have indicated that the costs of complying with the accreditation standards are 10 percent greater than the funding provided to the school districts through the foundation and permissive programs. The state is, in fact, not providing enough funds in an equitable manner so that all students may acquire a basic education as measured by the current accreditation standards. This finding is further complicated by the fact that the Loble decision has decreed that the current accreditation standards do not define a basic system of education. His decision was based on testimony by the Board of Public Education that the current accreditation standards are minimums only and do not represent quality. If basic education is defined as something beyond the current standards, then the costs will be even higher, and the current funding is even more inequitable.

In order to comply with the state constitution, the legislature must formulate a clear definition of basic education, determine its cost, and then fund that cost equitably. It must also attempt to provide for a system of equalized funding for programs in excess of the basic education so that a student's opportunity does not depend upon the wealth of his/her district. In providing for a system of equalized funding, the legislature would also reduce the taxpayer inequity which currently exists.

The implications of these findings for the State of Montana, and for any other state which is under court order to provide equal opportunity through equitable funding, are overwhelmingly complex. The three issues involved, while intertwined, must be considered separately in any study which seeks to provide quality education through equalized funding.

First, as was done in this study, an educational base must be defined. The components of this base must be determined, and research must establish the cost of each component. In this study, the current accreditation standards were used as the base, and the costs were determined from the trustees' annual reports to the Office of Public Instruction.

Second, the base education must be analyzed to determine if it really does meet the definition of quality education. The Loble decision has found that the base education used here really does not define a basic system of quality education as demanded by the Montana Constitution. Therefore, a new base must be determined. At this writing the Board of Public Education, through its "Project Excellence", has revised and upgraded the accreditation standards to provide, in the opinion of the Board, the instructional portion of a basic system of quality education. The legislature could accept this or some other definition of quality education. Assuming that the proposed standards meet the constitutional definition, further research should analyze the differences between the current and proposed standards, determine the changes in the components, and then determine a cost of a system of basic quality education as determined by these standards.

Third, the issue of equal opportunity to acquire an education must be addressed. This study indicates that equal opportunity is denied students in Montana because the funding for even a minimal education is inadequate. Differences in local expenditures per ANB and in local levies have been cited by the court as evidence of a lack of equal opportunity. Those differences become even greater when the cost of an enhanced base is determined. Therefore, the issue of equalized funding must be addressed. Further research could assume that the costs of providing an expanded basic education could be determined using the methodology developed in this study. That expanded basic education, such as that detailed by Project Excellence, could then be funded equitably by the state, without regard for local district wealth. Since the funding is not now equitable, this study would presumably detail a method whereby a higher countywide tax levy, a greater state contribution, a system of power equalizing the mills, caps on total spending, or a combination of all of these would form an equitable, wealth neutral funding system. This type of a system could meet the constitutional requirement for equal opportunity. In any case, the methodology established in this study could be the starting point for determining the dollars required by an equitable funding system.

The importance of the findings in this study are therefore threefold. First, a methodology has been established whereby costs can be determined for any required program. Second, costs for any changes in that program can be determined by redefining the components involved. Third, funding can now be related to costs, a practical application which was hitherto impossible. This process can

allow the establishment of new foundation schedules, accurate estimates on the cost of funding the districts in the state, and it can be the basis for a system of equalized funding.

NOTES

[1] Montana Code Annotated, Title 20, chapters 1-10, (1987).

[2] Montana Constitution, art X, sec. 1.

[3] Montana, Board of Public Education, Montana School Accreditation Standards, (Helena, MT: Montana, Board of Public Education, 1987), 13-38.

[4] Helena School District No. 1, et. al., v. The State of Montana, Montana First Judicial District Court, ADV-85-370, (1988).

[5] Ibid., 120.

[6] Montana Taxation, (Helena, MT: Montana Taxpayers Association, 1986), 30.

[7] Helena School District No. 1, v. The State of Montana, 109.

[8] House Joint Resolution 16, 50th Legislature, 1987 Laws of Montana.

[9] Montana, Board of Public Education, Montana School Accreditation Standards, (Helena, MT: Montana Board of Public Education, 1988).

[10] Montana Legislative Council, Notes on Funding of Basic Education in Other States, by Andrea Merrill, (Helena, MT: Montana Legislative Council, 1986).

[11] Montana Office of Public Instruction, Directory of Montana Schools, 1987-88, (Helena, MT: Montana Office of Public Instruction, 1988), 4.

[12] Claudette Morton, Board of Public Education, memo to Sandy Whitney and Curt Nichols, 8 February, 1988, 4.

BIBLIOGRAPHY

Helena School District No. 1, et. al., v. The State of Montana. Montana First Judicial District Court. ADV-85-370. 1988.

House Joint Resolution 16. 50th Legislature, 1987 Laws of Montana.

Montana. Board of Public Education. Montana School Accreditation Standards. Helena, Montana: Montana Board of Public Education, 1988.

Montana. Board of Public Education. Montana School Accreditation Standards. Helena, Montana: Montana Board of Public Education, 1986.

Montana. Legislative Council. Notes on Funding of Basic Education in Other States. Helena, Montana: Montana Legislative Council, May 1986.

Montana. Office of Public Instruction. Directory of Montana Schools, 1987-88. Helena, Montana: Montana Office of Public Instruction, 1988.

Montana Codes Annotated. Title 20. 1987.

Montana Constitution. art X. sec. 1.

Montana Taxation. Helena, MT: Montana Taxpayers Association, 1986.

Morton, Claudette, Executive Secretary, Board of Public Education, to Sandy Whitney and Curt Nichols, 8 February, 1988. Transcript in the hand of Sandy Whitney.