ALASKA LEGISLATURE COMMITTEE FILES 1991-1992 8672
6802 HOUSE HEALTH EDUCATION & SOCIAL SERVICES

FISCAL NOTE

STATE OF ALASKA
1991 LEGISLATIVE SESSION

BILL NO. SSHB 20

Revision Date: February 18, 1991
Title: LB Qualifications

Department Affected: Administration
BRU: Longevity Bonus, Pioneers' Benefits
Component: Grants

Sponsor: Representative Sharp
Requestor: Representative Sharp

COMPONENT SERIAL NO. 2 6

Expenditures/Revenues: (Thousands of Dollars)

OPERATING	FY 92	FY 93	FY 94	FY 95	FY 96	FY 97
PERSONAL SERVICES	0	0	0	0	0	0
TRAVEL	0	0	0	0	0	0
CONTRACTUAL	0	0	0	0	0	0
SUPPLIES	0	0	0	0	0	0
EQUIPMENT	0	0	0	0	0	0
LAND & STRUCTURES	0	0	0	0	0	0
GRANTS, CLAIMS	$84.0	$84.0	$84.0	$84.0	$84.0	$84.0
MISCELLANEOUS	0	0	0	0	0	0
TOTAL OPERATING	$84.0	$84.0	$84.0	$84.0	$84.0	$84.0
CAPITAL	0	0	0	0	0	0
REVENUE	0	0	0	0	0	0

FUNDING: (Thousands of Dollars)

GENERAL FUND	$84.0	$84.0	$84.0	$84.0	$84.0	$84.0
FEDERAL FUNDS	0	0	0	0	0	0
OTHER	0	0	0	0	0	0
TOTAL	$84.0	$84.0	$84.0	$84.0	$84.0	$84.0

POSITIONS:

FULL-TIME	0	0	0	0	0	0
PART-TIME	0	0	0	0	0	0
TEMPORARY	0	0	0	0	0	0

Estimate of current year impact: None

ANALYSIS: (Attach a separate page if necessary.)
See attached.

Prepared by: Barbara Bathony Barbara Bathony
Division: Pioneers' Benefits
Phone: 465-4400
Date: February 18, 1991

Approved by Commissioner: Millett Keller Mike Nelson for MK
Agency: Administration
Date: 2/26/91

Distribution (by preparer): Legislative Finance, Legislative Sponsor, Requestor, OMB, & Impacted Agency(ies).

Rev 10/90
d:\wp\misc\SSHB20.FN\

FN 84.0 Admin

Fiscal Note
Sponsor Substitute HB 20

February 17, 1991

There are 28 nursing home residents qualified under the sponsor substitute HB 20 in FY 91. This information was collected via a telephone survey of private long-term care facilities conducted February 1991. These 28 nursing home residents are non-medicaid, non- medicare, non-veterans, but their cost is paid for entirely by private pay or by insurance policies. It is estimated that about 80% of the private pay residents are 65 years old and over. (80% of 36 residents equals 28 Alaskans qualified under this bill)

The cost of adding 28 nursing home residents to the program is $84,000 for FY 92, and will be slowly decreasing thereafter.

(in 1,000s)

	FY 92	FY 93	FY 94	FY 95	FY 96	FY 97
Number of Nursing Home residents	28	28	28	28	28	28
Cost of Longevity Bonus	$84.0	$84.0	$84.0	$84.0	$84.0	$84.0

The above calculation does not include the residents of the Pioneers' Homes or the Sourdough unit in Harborview, Valdez. Residents in these facilities do not pay full cost of care.

The division questions if this bill is constitutional.

PRIVATE PAY/INSURANCE RESIDENTS IN NURSING HOMES
FY 91

Facility	Number of Private/Insurance Pay Residents
Island View Manor	5
Kodiak Island Nursing Home	3
Petersburg Hospital	5
South Peninsula Hospital	1
St. Ann's Nursing Home	3
Wesleyan Nursing Home	8
Denali Center	7
Our Lady of Compassion Care Center	4
Nome	0
Kotzebue	0
TOTAL	36

Telephone survey conducted by the Division of Pioneers' Benefits on February 13-14, 1991.

d\wp\misc\shb20fn

HOUSE COMMITTEE REPORT

(7)

Date Referred: February 4, 1991 FURTHER REFERRALS: Health, Education and Social Services
Finance

Date of Committee Action: 4-17-91

The STATE AFFAIRS Committee considered: SSHB 20

SPONSOR SUBSTITUTE FOR HOUSE BILL NO. 20
LONGEVITY BONUS/NURSING HOME RESIDENTS

"An Act relating to qualifications for longevity bonus payments; and providing for an effective date."

RECOMMENDATIONS:
be replaced with CS SS HB 20 (STA) [✓] the same title [ ] a new title

[ ] have attached amendments(s)
[✓] do pass
[ ] do not pass
[ ] no recommendations
[ ] individual recommendations
[ ] additional referral to the _____ Committee

ADOPTS: _____ _____ letter of Intent

ATTACHES NEW FISCAL NOTE(s): (Dept) APPROVES PREVIOUS: (Dept/Date)

[✓] fiscal impact Admin - Long. Bonus [ ] fiscal note(s) _____

[✓] zero fiscal note HSS - Medical Assistance [ ] zero fiscal note(s) _____

SIGNING DO PASS: SIGNING OTHER RECOMMENDATIONS:

	Check appropriate column:	Do Not Pass	No Rec	Amend
Glen Kubera				
Mike Miller				

Glen Kubera
Chairman's Signature

STA Comm. Report

HB

23

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STATE OF ALASKA
THE LEGISLATURE

POUCH Y . STATE CAPITOL
JUNEAU, ALASKA 99811
907-465-3800

LEGISLATIVE AFFAIRS AGENCY

LEGISLATIVE REFERENCE LIBRARY

Copies of minutes listed below were originally included in this file. The minutes are available on the STAIRS database CMPR. In order to save space copies of minutes have not been left in the files.

Mary Van Nimwegen

3/7/92 NHESS

7-LS0220\G
Ford
3/14/91

CS FOR HOUSE BILL NO. 23 ( )

IN THE LEGISLATURE OF THE STATE OF ALASKA

SEVENTEENTH LEGISLATURE - FIRST SESSION

BY

Offered:
Referred:

Sponsor(s): REPRESENTATIVES LARSON, Carney, Taylor

A BILL

FOR AN ACT ENTITLED

"An Act relating to the area cost differential for school districts; and providing for an effective date."

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF ALASKA:

* Section 1. AS 14.17.051 is repealed and reenacted to read:

Sec. 14.17.051. AREA COST DIFFERENTIAL. The board shall develop a methodology for calculating an area cost differential and shall establish by regulation an area cost differential for each school district. The department shall conduct a survey of school district personnel costs once every five years and a survey of school district nonpersonnel costs once every two years.

* Sec. 2. TRANSITION. Until the State Board of Education has established an area cost differential by regulation, as required by sec. 1 of this Act, the Department of Education shall calculate state aid for each school district by using the area cost differential provided in AS 14.17.051, as it existed before the effective date of this Act.

* Sec. 3. REPORT. The Department of Education shall report to the legislature the methodology used to calculate the area cost differential required by sec. 1 of this Act by January 15, 1992.

7-LS0220\G
Ford
3/12/91

CS FOR HOUSE BILL NO. 23 ( )

IN THE LEGISLATURE OF THE STATE OF ALASKA

SEVENTEENTH LEGISLATURE - FIRST SESSION

BY

Offered:
Referred:

Sponsor(s): REPRESENTATIVES LARSON, Carney, Taylor

A BILL

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* Sec. 2. Notwithstanding AS 14.17.051, as repealed and reenacted by this Act, the area cost differential for the Aleutian East school district is 1.31 for the fiscal year beginning July 1, 1990, and shall be increased in equal percentage amounts over the next two fiscal years, beginning July 1, 1991, until the area cost differential is equal to 1.33.

* Sec. 3. REPORT. The Department of Education shall report to the legislature the methodology used to calculate the area cost differential required by this Act by January 15, 1992.

*** Sec. 4.** This Act takes effect immediately under AS 01.10.070(c).

Alaska State Legislature

HOUSE OF REPRESENTATIVES

Official Business

P.O. Box V
State Capitol
Juneau, Alaska 99811

MEMORANDUM

February 27, 1991

TO: House Health, Education, and Social Services Committee

FROM: Representative Ronald L. Larson

SUBJECT: HB 23, an Act revising the Area Cost Differential

Sec. 14.17.021. State foundation aid. (b) The basic need of a school district is determined by multiplying the area cost differential of the district under AS 14.17.051 by the number of instructional units in the district under AS 14.17.031 and then multiplying that product by the instructional unit value in AS 14.17.056.

Before you for consideration is HB 23, an Act revising the Area Cost Differential for education funding. The Area Cost Differential is an index set in statute (AS14.17.056) for computing state funding allocations to school districts.

HB 23 reflects the recommended area cost differentials from a 1988 study by the McDowell Group for the Legislative Budget & Audit Committee. Previous school district differentials had been based only on household cost of living data. Little was known about the cost of operating school districts in the different regions of Alaska.

Using the more pertinent and updated data from the 1988 McDowell Group, HB 23 attempts to establish an area cost differential that truly reflects the costs of operating a school district by considering both personnel and, for the first time, nonpersonnel costs.

Copies of the Alaska School District Profiles and Differential Study are available for your review. A summary of the information has been provided for the Committee's packets.

Thank you for this opportunity.

FISCAL NOTE

STATE OF ALASKA
1991 LEGISLATIVE SESSION

BILL NO. CSHB 23 (HESS)

Revision Date: _____ Department Affected: Education

Title: Area Cost Differential for School Districts BRU: K-12 Support, Education Finance

Component: Foundation, District Support

Sponsor: House HESS

Requestor: House HESS COMPONENT SERIAL NO. [ ][ ][ ][ ]

Expenditures/Revenues: (Thousands of Dollars)

OPERATING	FY 92	FY 93	FY 94	FY 95	FY 96	FY 97
PERSONAL SERVICES						
TRAVEL						
CONTRACTUAL	100.0	-0-	-0-	-0-	-0-	-0-
SUPPLIES						
EQUIPMENT						
LAND & STRUCTURES						
GRANTS, CLAIMS	29.4	58.8	58.8	58.8	58.8	58.8
MISCELLANEOUS						
TOTAL OPERATING	129.4	58.8	58.8	58.8	58.8	58.8
CAPITAL						
REVENUE						

FUNDING: (Thousands of Dollars)

GENERAL FUND	129.4	58.8	58.8	58.8	58.8	58.8
FEDERAL FUNDS						
OTHER						
TOTAL	129.4	58.8	58.8	58.8	58.8	58.8

POSITIONS:

FULL-TIME						
PART-TIME						
TEMPORARY						

Estimate of current year impact: None/Aleutians East area differential is currently 1.31

ANALYSIS: (Attach a separate page if necessary.)

Section 2 of CSHB23(HESS) increases the Foundation program cost as follows:
FY 92 (Area cost differential 1.32) cost of $29,400
FY 93 (Area cost differential 1.33) cost of $58,800
Section 1 is estimated to require a one-time contractual cost of $100,000

Prepared By: Mary Hakala Phone: 465-2800

Division: Commissioner's Office Date: 3/13/91

Approved by Commissioner: Steve Hoffbeck, Acting Commissioner

Agency: Education Date: 3/13/91

Distribution (by preparer): Legislative Finance, Legislative Sponsor, Requestor, OMB, & Impacted Agency(les).

ACSA

ALASKA ASSOCIATION OF ELEMENTARY SCHOOL PRINCIPALS
ALASKA ASSOCIATION OF SECONDARY SCHOOL PRINCIPALS
ALASKA ASSOCIATION OF SCHOOL ADMINISTRATORS

• ALASKA COUNCIL OF SCHOOL ADMINISTRATORS •
326 Fourth St., Suite 408, Juneau, AK 99801-1101 (907) 586-9702 FAX (907) 586-5879

HOUSE BILL 23

POSITION STATEMENT

"An Act relating to the area cost differential for school districts; and providing for an effective date."

The Alaska Council of School Administrators supports HB 23 with some reservation and recommendations.

Because of the continued impact of sustaining the current level of funding for education over the past five year and the continued increased costs of providing education to students, districts have had to make substantial reductions in their budgets. This includes those districts who are the victims of a negative adjustment to their area cost differential listed in this legislation. We know the study completed two years ago which is used to establish the recommended changes in the differentials for all districts, was based more on cost of living in the region rather that the cost of educating by region. This raised the question of accuracy of data used in the final recommendations for differentials. Therefore we recommend some hold harmless agreement be added to HB 23 for those districts who would be subject to an area cost differential reduction under this legislation.

We agree the area cost differential must be examined. However, it must be examined along with the current foundation formula and in the text of many of the other issues facing educational funding today. That research must include the fair determination of the cost of educating children by region.

ALASKA SCHOOL DISTRICT PROFILES AND DIFFERENTIAL STUDY

SUMMARY OF RESULTS AND RECOMMENDATIONS

CHAPTER I OF VOLUME I

PREPARED FOR:

LEGISLATIVE BUDGET AND AUDIT COMMITTEE
ALASKA STATE LEGISLATURE

PREPARED BY:

THE MCDOWELL GROUP
A DIVISION OF
DATA DECISIONS GROUP, INC.

IN ASSOCIATION WITH
DR. NAT COLE

DECEMBER 1988

Alaska School District Profiles and Differential Study

Chapter I, *Summary of Results and Recommendations*
of
Volume I, *Summary and Analysis*

Prepared For:

Legislative Budget and Audit Committee
Alaska State Legislature

Prepared By:

The McDowell Group
A Division of
Data Decisions Group, Inc.

In Association with
Dr. Nat Cole

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Chapter I, *Summary of Results and Recommendations*, of Volume I

Reader Note: This document consists only of Chapter I, *Summary of Results and Recommendations*, of the two-volume **Alaska School District Profiles and Differential** Study. It is presented to give readers the summary of the 119-page, four-chapter Volume I, *Summary and Analysis*, and the 280-page Volume II, *District Profiles*.

Introduction

The *Alaska School District Profiles and Differential Study* is a two-volume study produced during 1988 at the request of the Legislative Budget and Audit Committee of the Alaska State Legislature by the McDowell Group, Alaskan economic and market consultants, in association with Dr. Nat Cole, a noted Alaskan education consultant.

Purpose

The study has two purposes. One is to provide a comprehensive geographic cost differential for each of the 53 public school districts scheduled to be in existence in Fiscal Year 1990, the next State budget cycle. Data from the current fifty-five districts were studied as three districts - Aleutian Region, Sand Point and King Cove - will merge in FY 1990, reducing the total to 53. The second purpose as directed by the Committee is to develop an information base on school districts for convenient use by decision makers.

Study Background

Of particular importance was the Legislative Budget and Audit Committee's direction to study all of the operating costs financed by the School Foundation Fund, commonly referred to in education circles as the 01 Fund. The result was a study design which measured both personnel and nonpersonnel costs. Previous school district differentials had been based only on household cost of living data and did not include consideration for nonpersonnel costs.

Until this current study, little was known of the comparative cost of operating widely different school districts in 53 distinctly different areas of Alaska. What was known was the relative cost of operating a household (household cost of living) in 19 areas of Alaska. This information was the result of the 1985 McDowell Group work, the *Alaska Geographic Differential Study*. In the past, these household cost differences were used to represent differences in operating school districts, a sometimes tenuous assumption since school districts rarely resemble households. This assumption was valid to the extent that personnel costs account for most of a typical district's operating cost. This study, *Alaska School District Profiles and Differential Study*, directly addresses and researches the costs of operating school districts and includes both personnel and, for the first time, nonpersonnel costs.

The study does not cover all aspects of public school finance. There are actually four areas of public school funding of which this study deals in detail with just one - differentials necessary to compensate for price differences among districts. And even more specifically, the study researches price differences for school expenditures covered by the 01 Fund, the basic fund which covers most school district operations. The study does not deal with the school foundation formula, capital costs or the criteria for other funding such as local contributions, PL 874, special programs, pupil transportation or extra curricular travel.

A companion to the differential is the school foundation formula. Though separate from the differential, its purpose also is to compensate for additional cost - that of providing education in locations with dispersed and lower density student populations. It simply takes more personnel, buildings, building space, travel, supplies and materials to provided education in a district of 10 communities with 200 students each than in a district consisting of one community with 2,000 students. It is simply less efficient per student, and therefore more costly, even if prices in the two districts are identical.

The school foundation formula compensates for this inherent inefficiency by granting more dollars per student to communities with fewer students. It does not compensate for differences in prices of nonpersonnel items or in the household cost of living. That is the function of the differential under study in this report. In most cases, the foundation formula is far more significant in allocating funding to districts than is the differential.

Content

Volume I, *Summary and Analysis*, provides complete results, recommendations and methodologies for the first purpose of the study. That is, to provide comprehensive differentials for districts. Volume I also contains additional data and ratio analysis of selected statistics on district fiscal, personnel, enrollment and facilities. Volume II, *District Profiles*, addresses the second purpose of providing an information base.

Volume II contains detailed profiles for the 53 districts. Each district profile contains three types of information. First is social, economic, geographic (including a district map) and governmental information about the district itself. The second is a FY 1988 profile of the district's fiscal data, personnel, facilities and enrollment. Finally, the last page of each profile contains the calculations and results of the district's geographic cost differential. This last section includes detailed data for the personnel, nonpersonnel and overall district differentials, data which are not presented in district format in Volume I. The profiles are typically 4 to 6 pages in length depending on the size of the district.

Volume II places a complete and relevant picture of Alaska's public school districts in one convenient and easily digestible document. Political and administrative decision makers have long been handcuffed by lack of reliable and consumable data on one of the State's most important and most expensive issues - public education.

Using these profiles, a single district can evaluate their operations in terms of personnel/enrollment ratios, maintenance efficiency for facilities, quality of facilities, expenditures per 100 ADM and many other measures. All of these can be compared to the same measures in every other district. Each district also has data showing the characteristics of the district itself such as population, average income, employment, unemployment, subsistence dependency, ethnic composition, climate data including heating degree days, transportation systems, district size, land status and political systems.

Districts can compare their costs for each of seven major household and eight major nonpersonnel expenditure categories by referring to the last page of each profile. For example food, transportation and clothing costs for households as well as equipment, utilities and travel costs for districts are some of the costs shown in each profile. Unique district expenditure patterns for personnel and nonpersonnel costs can also be identified and compared by using Volume II in this manner.

Methodology

Methodology for the *Alaska School District Profiles and Differential Study* utilized both survey and secondary research. The household cost of living in each district was used to represent differences in personnel costs. While district pay scales and actual salaries paid were examined, they were not used as the basis for personnel costs. It was observed that starting salaries in most districts closely paralleled the actual cost of living. But further up the scale this correlation faded. In general, urban scales rose at a more rapid rate, increasing actual personnel costs substantially with longevity. Therefore, what is actually paid in terms of average salary is primarily a function of negotiating policy, not cost. This eliminated salary scales and average salaries as objective measures of true cost.

District cost of living differentials were calculated by disaggregating and reorganizing the massive data base from the 1985 *Alaska Geographic Differential Study* from 19 larger districts to 53 school districts. Since the data base involved 2,500 households in 91 communities and 2,100 retail outlets in 54 communities, at least some data existed to compute a differential for each school district. Since differences in cost of living among Alaska locations tend to remain stable or change only slowly, the data was considered valid for the study. The alternative of resurveying in 53 districts would have been far beyond the budget limits of this study.

A comprehensive School District Survey, completed by 51 of the 55 current districts provided detailed budget data, a personnel inventory, a complete building by building facilities inventory plus a comprehensive survey of district purchasing patterns for each of the 30 items selected for the nonpersonnel market basket including, for example, utilities, insurance, teaching supplies, professional/technical services and equipment. Much of the data from this survey was used for both the differential calculations and the district profiles in Volume II.

A companion survey also done for this study was a School District Vendor Survey of dozens of firms serving Alaska school districts. Collected were current prices of all nonpersonnel items, shipping methods and costs, pricing policies and further information on district purchasing patterns.

Finally, a number of secondary sources were utilized, especially for the social, economic, geographic and governmental portions of the district profiles. District statistics provided in the surveys were supplemented by Alaska Department of Education reports, district audits and other sources.

I. Summary of Results and Recommendations

I. Summary of Results and Recommendations

Recommended School District Differentials

Table I-1 is a comparison of the final recommended differentials from this study and the existing differentials currently in force in state statute through FY 1989. It is suggested that readers consider three critical points when viewing the recommended differentials and those in the existing statute:

1. Study results should be expected to differ from existing statute differentials. Existing statute differentials are based solely on the 1985 McDowell Group work, *Alaska Geographic Differential Study* (with minor adjustments in some districts for multisite districts and as a result of an arbitrator's opinions). This study is in turn based solely on the household cost of living, not the cost of operating a school district. Further, the 1985 study provided differential data for only 19 election districts. These results were generalized to the 55 (to be 53 for FY 1990) school districts contained within the 19 election districts.

This current study,*Alaska School District Profiles and Differential Study,* differs in two significant respects. First, it is the first to include all costs of operating a school district in the differential formula. Second, this study provides data specifically for each school district for both household cost of living and for nonpersonnel district operating costs. Because of these fundamental differences, study results were not expected to mirror existing differentials. In short, operating a household is rarely the same as operating a school district and should not be expected to cost the same.

2. In nearly all cases, the differential is less important to district funding levels than the school foundation formula. The school foundation formula is designed to compensate for higher costs due to the inherent inefficiency of providing education in locations with dispersed population and lower student density. On the other hand, the differential in this study is designed to correct for higher costs due to higher prices, not inefficiency. A common result of the two forms of compensation is that districts with the same differential often receive different amounts of funding on a per student basis.

The most extreme foundation formula cases are the districts with very small communities. For example, in FY 1988 the Chugach district received only 11%

more funding per student because of the differential. By contrast it received 179% more dollars per student due to the foundation formula. In FY 1988 the Railbelt district had an additional 23% from the differential and 25% per student from the foundation formula. Many larger districts are also affected. The Kenai Peninsula district receives no differential because living costs are essentially the same as in Anchorage. But it does gain 16% more dollars per student from the foundation formula because it serves a moderately dispersed and less dense student population. See Chapter IV for a detailed discussion of the relationship of the foundation formula and the differential.

3. The small amounts of household cost of living data available in some groups of districts mean that raw study results are subject to moderate error, and therefore inequity. An improvement in accuracy results from averaging the differentials of similar districts which have limited data. Specifically, group averages are recommended for most districts in the rural Southeast Alaska, Alaska Peninsula and Aleutian Islands, Yukon and Kuskokwim Delta, Interior Remote and Interior Road System groups. See Table I-2 in this chapter for comparison of study results and recommended differentials.

Table I-1

Comparison of Recommended Differentials and Existing Statue Differentials

(Anchorage District = 1.00)

District	Recommended Differentials	Statute Differentials	Difference
Southern Southeast			
Annette Island	1.08	1.03	0.05
Craig	1.08	1.03	0.05
Klawock	1.08	1.03	0.05
Hydaburg	1.08	1.03	0.05
Southeast Island	1.08	1.04	0.04
Urban Southeast			
Ketchikan	1.00	1.00	0.00
Wrangell	1.00	1.00	0.00
Petersburg	1.00	1.00	0.00
Sitka	1.00	1.00	0.00
Juneau	1.00	1.00	0.00
Central and Northern Southeast			
Kake	1.10	1.03	0.07
Chatham	1.10	1.03	0.07
Hoonah	1.10	1.08	0.02
Pelican	1.10	1.08	0.02
Other Southeast			
Haines	1.03	1.05	-0.02
Skagway	1.05	1.05	0.00
Yakutat	1.20	1.08	0.12
Prince William Sound			
Cordova	1.20	1.11	0.09
Chugach	1.20	1.11	0.09
Valdez	1.08	1.11	-0.03
Copper River	1.13	1.14	-0.01

Table I-1 continued

Comparison of Recommended Differentials and Existing Statue Differentials

(Anchorage District = 1.00)

District	Recommended Differentials	Statute Differentials	Difference
Anchorage Urban Influence Area			
Anchorage (Base District)	1.00	1.00	0.00
Matanuska-Susitna	1.00	1.00	0.00
Kenai Peninsula	1.00	1.00	0.00
Kodiak	1.08	1.09	-0.01
Alaska Peninsula and Aleutian Islands			
Adak	1.29	1.27	0.02
Pribilofs	1.40	1.30	0.10
Aleutian (Region) East	1.33	1.31	0.02
Unalaska	1.29	1.27	0.02
Dillingham	1.29	1.27	0.02
Bristol Bay	1.33	1.27	0.06
Lake and Peninsula	1.33	1.31	0.02
Southwest	1.33	1.31	0.02
Yukon and Kuskokwim Delta			
Lower Kuskokwim	1.40	1.42	-0.02
Yupiit	1.40	1.41	-0.01
Kashunamiut	1.37	1.33	0.04
Lower Yukon	1.37	1.35	0.02
St. Mary's	1.37	1.30	0.07
Interior Remote			
Kuspuk	1.33	1.33	0.00
Iditarod	1.33	1.33	0.00
Galena	1.33	1.30	0.03
Yukon-Koyukuk	1.33	1.34	-0.01
Yukon Flats	1.36	1.46	-0.10
Tanana*	1.33	1.30	0.03
Interior Road System			
Alaska Gateway*	1.14	1.19	-0.05
Delta/Greely	1.14	1.16	-0.02
Nenana	1.14	1.20	-0.06
Railbelt*	1.14	1.23	-0.09
Fairbanks	1.03	1.04	-0.01
Arctic			
North Slope	1.49	1.45	0.04
Northwest Arctic	1.43	1.45	-0.02
Nome	1.36	1.34	0.02
Bering Straits	1.40	1.39	0.01

Summary of Results

Changes were modest considering the differences in the origin of the recommended and statute differentials. Forty-two of fifty-three district differentials changed by five points or less and over half of all district differentials (29) changed by less than three points. Eleven of those remained the same.

Of the eleven district differentials changing by more than five points, all had statute differentials that were not based on data specifically for their districts. The largest gain was Yakutat (+12) and the greatest loss was Yukon Flats (-10). The district specific data in this study supports the recommended differentials. In virtually every one of the following cases, the new nonpersonnel cost data is consistent with the revisions in the household data.

Valdez (-5), Cordova (+9) and Chugach (+9) had been assigned the same overall Prince William Sound differential, 1.11, because their data had been combined in the 1985 study. When disaggregated, the data clearly showed a significant difference between Valdez and Cordova cost of living, Valdez being less expensive. The nonpersonnel survey also identified significant cost differences.

Yakutat, Kake (+7) and Chatham (+7) had been combined with less expensive urban areas of Haines/Skagway, Wrangell/Petersburg and Sitka, respectively. When separated, their higher living costs became obvious. Higher costs in these communities were also confirmed by the results of the nonpersonnel cost research in this study. Yakutat, as the most isolated of these, had the largest gain.

Railbelt and Nenana, down six and nine points respectively, are locations with road access to major urban areas but previously had been combined with a larger interior remote . Once the higher costs of the remote interior communities were rem om data for communities with road access, more moderate differentials resulted.

Yukon Flats' statute differential was the results of an arbitrator's decision which classified it as an arctic district with costs at the North Slope level. However, district specific cost of living and nonpersonnel data place it conclusively in a more logical category with its closest geographic neighbors in the remote interior region south of the Brooks Range.

The St. Mary's district (+7) had been set at a low level due to an anomaly in the original Wade Hampton election district housing cost data. After adjustment for that exception, the district differential becomes average for the Yukon delta area.

The Pribilof district (+10), the most remote in Western Alaska, had an inadequate data base for computing a specific differential and had been assigned a level more typical of less isolated communities in the region. Adjustment for this inequity plus an addition of seven points for extreme costs resulting from exceptional isolation give the district a significant increase. Pribilof nonpersonnel costs are the Alaska Peninsula and Aleutian Island region's highest.

Recommended Differentials and Study Results

The results of the study reflect detailed analysis of both household cost of living data and district nonpersonnel operating costs. While the data are the most accurate and detailed ever used for school cost differentials, they are by no means perfect reflections of reality. This is especially true when comparing communities and school district operations which do not remotely resemble one another. Differences in local lifestyles, income, district spending patterns, student density, climate and dozens of other factors make the science of differential study less than a precision calculation.

While the study team believes the results are reasonable reflections of comparative costs they are not so precise as to eliminate inequity. For this reason the study team provides recommended adjustments to the final statistical results of the study. In the 1985 work, *Alaska Geographic Differential Study*, the professional team recommended that the State of Alaska consider grouping similar districts into a limited number of groups. The districts within each group would be assigned the same differential. This allows for very accurate measurement of costs in larger geographic areas already known to have roughly the same costs throughout each area. The study team makes the same recommendations for school district differentials.

The problem in both the 1985 study and this current study is one of hair splitting small amounts of data into even smaller districts. The accuracy of the data decreases as the number of households and retail outlets surveyed becomes smaller. A thorough reading of chapters II and III shows the procedures necessary to coax meaningful differentials out of small amounts of data in some districts.

Perhaps the most extreme examples are differentials in four areas of the state - rural Southeast, Alaska Peninsula and Aleutian islands, Yukon and Kuskokwim Delta, and the Interior Remote districts which stretch from Kuspuk to Yukon Flats. Often, the personnel differentials for a single district would be based on a sample of a hand full of households and on retail prices in just one of several communities in the district. Even so, nearly all results came within the parameters of the larger, more accurate districts used in 1985 and the cost differences between adjacent districts with minimal data were surprisingly close. This is due in part to the quality of the original data and in part to the tight procedures for handling data representing small districts.

Table I-2 details the differences between recommended differentials and unadjusted study results contained in Chapters II and III and in Volume II, *District Profiles*. Following Table I-2 is the summary discussion of all adjustments leading to the recommended differentials.

Table I-2

Recommended School District Differentials

(Anchorage District = 1.00)

District	Study Results	Recommended Differentials
Southern Southeast		
Annette Island	1.07	1.08
Craig	1.06	1.08
Klawock	1.08	1.08
Hydaburg	1.11	1.08
Southeast Island	1.11	1.08
Urban Southeast		
Ketchikan	1.02	1.00
Wrangell	1.02	1.00
Petersburg	1.01	1.00
Sitka	1.02	1.00
Juneau	1.02	1.00
Central and Northern Southeast		
Kake	1.13	1.10
Chatham	1.10	1.10
Hoonah	1.07	1.10
Pelican	1.07	1.10
Other Southeast		
Haines	1.03	1.03
Skagway	1.05	1.05
Yakutat	1.20	1.20
Prince William Sound		
Cordova	1.21	1.20
Chugach	1.20	1.20
Valdez	1.08	1.08
Copper River	1.13	1.13
Anchorage Urban Influence Area		
Anchorage (Base District)	1.00	1.00
Matanuska-Susitna	1.00	1.00
Kenai Peninsula	1.01	1.00
Kodiak	1.08	1.08
Alaska Peninsula and Aleutian Islands		
Adak	1.30	1.29
Pribilofs	1.34	1.40
Aleutian (Region) East	1.34	1.33
Unalaska	1.29	1.29
Dillingham	1.29	1.29
Bristol Bay	1.33	1.33
Lake and Peninsula	1.34	1.33
Southwest	1.33	1.33
Yukon and Kuskokwim Delta		
Lower Kuskokwim	1.40	1.40
Yupiit	1.40	1.40
Kashunamiut	1.37	1.37
Lower Yukon	1.37	1.37
St. Mary's	1.37	1.37

Table I-2 continued

Recommended School District Differentials

(Anchorage District = 1.00)

District	Study Results	Recommended Differentials
Interior Remote		
Kuspuk	1.34	1.33
Iditarod	1.29	1.33
Galena	1.33	1.33
Yukon-Koyukuk	1.31	1.33
Yukon Flats	1.36	1.36
Tanana	1.33	1.33
Interior Road System		
Alaska Gateway	1.11	1.14
Delta/Greely	1.11	1.14
Nenana	1.16	1.14
Railbelt	1.14	1.14
Fairbanks	1.03	1.03
Arctic		
North Slope	1.49	1.49
Northwest Arctic	1.43	1.43
Nome	1.36	1.36
Bering Straits	1.40	1.40

Basis for Recommended Differentials

Southeast: The five Southern Southeast districts are assigned a recommended group differential of 1.08. Craig, Klawock and Hydaburg are within a few miles of one another and all have access to the same road system. Hydaburg's study result of 1.11 was inflated by a low personnel expenditure weight due to that district's exceptionally low pay levels. Given the average weights of this group of districts, the Hydaburg differential would have been 1.08. Southeast Island has the central office as well as a substantial district correspondence program in Ketchikan. Both of these factors lower costs. Also, Southeast Island's dispersion over multiple small sites is compensated for in the foundation formula.

The recommended group differential for Urban Southeast districts is the 1.00 base level. Urban Southeast districts have virtually the same personnel and nonpersonnel cost levels, all of them within a few points of the base district. Further, their extremely low nonpersonnel expenditure weights show the effects of moderate climate and [illegible]dvantages not available to more northern isolated districts. While [illegible] results are slightly higher (1.01 o 1.02), numerous past studies have continued to verify that cost of living and other costs are essentially the same in most of urban Alaska. Finally, the slight difference from the base level in urban Southeast household living costs is due almost entirely to local sales tax, not actual cost levels. Some debate exists as to including the effect of local sales tax, a local choice, in living cost comparisons. Sales tax is included in the Alaska data base used in this

study. In summary, the difference between base level and Southeast urban differentials is not considered statistically significant.

The four Central and Northern Southeast districts are assigned a recommended differential of 1.10, the average for that group. Though they do not fall into a convenient group of similar districts, they are subject to the same isolation factors and they experience higher retail costs than the southern group. Pelican, which did not return a survey, is assigned the 1.10 average. The one multisite district, Chatham, is compensated for lack of density through the foundation formula.

Haines, Skagway and Yakutat recommendations are simply the study results - 1.03, 105 and 1.21. The statute differential for these districts was based on an overall average and Yakutat's costs inflated those of the entire district. In turn, the lower costs in Skagway and Haines were the major factor in Yakutat's low existing statute differential. Yakutat's isolation, lack of access to regional centers and high everyday retail prices separate it from the rest of Southeast Alaska. Its costs are actually similar to those of the isolated locations in Prince William Sound - Chugach and Cordova.

Prince William Sound: Prince William Sound differentials are an example of the advantage of road access. Valdez and even Copper River have lower everyday retail prices and nonpersonnel costs than Cordova and Chugach. The recommended differential for Cordova and Chugach (which is based on Cordova) is 1.20, the same as Yakutat and virtually the same as the study results. Study results are also recommended for Valdez (1.08) and Copper River (1.13). The former Prince William Sound differential of 1.11 for all locations was simply the average for the area. Enough data exists in each location to show a clear and significant difference in Cordova and Valdez costs, both household and nonpersonnel.

Anchorage Urban Influence Area: The Anchorage Urban Influence Area recommended differential is 1.00 for the three districts of Anchorage, Matanuska-Susitna and Kenai Peninsula. The Kenai Peninsula study result is actually 1.01, similar to some urban Southeast districts and is not considered statistically significant. Further, the Kenai district is compensated an extra 16% per student by the foundation formula for lower density and multisites.

Kodiak: The study result of 1.08 is the recommended Kodiak differential. Kodiak has no really comparable district other than some of the Southeast urban districts such as Sitka or Ketchikan, both with differentials near 1.00. It is large enough to have retail competition, reasonable utility rates and moderate shipping costs. Kodiak also benefits from a relatively modest maritime climate. However, it is more isolated than Southeast Alaska and shows moderately higher costs as a result, especially for transportation.

Alaska Peninsula and Aleutian Islands: The Alaska Peninsula and Aleutian Islands is a region which suffers from limited data. The communities are small and the number of households and retail outlets upon which these differentials are based is also small. However, the range of study results is surprisingly narrow showing these districts are subject to essentially the same cost levels. This similarity is further verified by the relative closeness of the nonpersonnel differentials.

Two differential are recommended. For Dillingham, Unalaska and Adak, 1.29 is recommended. Sufficient data is available for Dillingham and Unalaska and the study result for both was 1.29. These districts also show lower than average nonpersonnel expenditures, an indication that facility costs are more reasonable than in other districts in the area.

Adak benefits from the district's relationship with the military and its nonpersonnel differential is lower than average for the region. Further, it is unlikely that district personnel pay everyday retail prices as high as those in the small site districts, though the personnel differential assigned to Adak was from a high cost area, Sand Point.

The recommended differential for the remaining districts in the Alaska Peninsula and Aleutian Islands group is 1.33, their average. One exception to this is recommended. The Pribilof district is clearly subject to more extreme cost conditions than others in this group. The nonpersonnel differential is the region's highest, 1.38. Though no household data is available it would most certainly reflect higher costs than those districts less isolated and distant. A 1.40 is recommended for the Pribilofs - the same differential as Lower Kuskokwim, Yupiit and Bering Straits.

Yukon and Kuskokwim Delta: Yukon and Kuskokwim Delta recommendations are the study results of 1.40 for two districts and 1.37 for three others. Historically, Lower Kuskokwim and particularly Bethel, have had some of the state's highest household costs of living. The district's nonpersonnel results mirror this at 1.43, third highest in the state. Yupiit, for which no household or nonpersonnel data is available is assigned the Lower Kuskokwim differential of 1.40 which is the closest district but not particularly similar. It could have as easily been assigned the 1.33 for Kuspuk, its neighbor to the east. However, the line for groupings was drawn at Kuspuk so Yupiit is included in the delta group.

Interior Remote: The Interior Remote group of six districts which extends from Kuspuk to Yukon Flats is assigned a recommended differential of 1.33, the average for the group. The exception is Yukon Flats which shared with Yukon-Koyukuk the group's highest household costs and the next highest nonpersonnel differential. Study results of 1.36 are recommended for Yukon Flats. While this is a significant change from their 1.46 existing statute

differential, that differential was set in arbitration and was not based on actual data. Actual Yukon Flats district data for both households and nonpersonnel show patterns and prices very similar to other Interior Remote districts but not near the level of the Arctic districts which must cope with more severe climate and higher transportation costs.

Of all groups, the Interior Remote districts had the most limited data available. No single community was large enough to have a desirable number of households and outlets surveyed. Yet all districts had at least some household and price survey representation study results were fairly uniform, ranging from 1.29 to 1.36. These results also closely mirrored the 1985 study results for larger districts in the same region. Yukon-Koyukuk's lower than average nonpersonnel differential is modified by the fact that a portion of their students attend Nenana schools.

Interior Road System: Interior Road System district differentials are tightly grouped at 1.11 to 1.16. The differential of another road system district, Copper River's 1.13, further supports this range. Two inequities are apparent in this group. Nenana's 1.16 is noticeably higher than the others in spite of easy access to Fairbanks prices. The second apparent inequity is the Alaska Gateway district which had no household or price data and was assigned Delta/Greely numbers as the closest district. However, the small Delta/Greely sample had lower than normal housing cost factors. Alaska Gateway, on the other hand, has less retail price competition and is not an easy drive to either Fairbanks or Anchorage. This situation is more like that of Copper River and Railbelt.

An overall Interior Road System differential of 1.14 is recommended. This is the average of the two districts (Nenana and Delta/Greely) for which both household and nonpersonnel data were available. While this may not be an ideal solution, it is the only alternative which can be based on actual data. Further, it provides Alaska Gateway with virtually the same differential as the two most similar district - Copper River and Railbelt. These three districts, especially Alaska Gateway, benefit significantly more from the foundation formula than Nenana and especially Delta/Greely.

Fairbanks: Study results of 1.03 are recommended for Fairbanks. The state's second largest district, while typically urban in virtually all of its cost data, does have both household (1.03) and nonpersonnel (1.01) differentials above the urban base. Further, it did report the highest per gallon cost for heating oil of any urban district, in spite of the presence of two local refineries. While districts with 1.01 and 1.02 overall differentials were held to the urban base, the Fairbanks level of 1.03 becomes significant and is recommended.

Arctic: Arctic districts vary a great deal in all respects and no group differential could apply. Study results are recommended for North Slope (1.49), Northwest Arctic (1.43), Nome (1.36) and Bering Straits (1.40). Both

Nome and North Slope districts spend a high proportion of their budget on personnel (78% and 77%, respectively), indicating high salaries and/or lower than normal nonpersonnel costs. The North Slope differential is more a result of high household cost of living than nonpersonnel costs which are modified by reasonable (by Arctic standards) utility costs in Barrow.

Personnel and Nonpersonnel Differentials and Expenditure Weights

Table I-3 shows how each of the district differentials are calculated. First, the personnel cost differential is multiplied by the personnel expenditure weight. In the case of the Klawock district, for example, 81% of the total budget was spent on personnel and the personnel differential was 1.01, or 1% above Anchorage levels. Then, the nonpersonnel differential is multiplied by the nonpersonnel expenditure weight. In the Klawock case the district spent 19% of their budget on nonpersonnel costs and the nonpersonnel differential was 1.35 or 35% higher than Anchorage costs. The products of these two calculations are added and the sum, 1.08, is the district differential.

A summary discussion of these results follows Table I-3, on the following page.

Table I-3

School District Personnel, Nonpersonnel and Total Differentials

(Anchorage District = 1.00)

District	Personnel Differentials	Pers Expenditure Weight	Non Personnel Differentials	Nonpers Expenditure Weight	Total District Differential	Recommended Differential
Southern Southeast						
Annette Island	1.01	.75	1.23	.25	1.07	1.08
Craig	1.01	.77	1.25	.23	1.06	1.08
Klawock	1.01	.81	1.35	.19	1.08	1.08
Hydaburg	1.01	.63	1.27	.37	1.11	1.08
Southeast Island	1.01	.71	1.36	.29	1.11	1.08
Urban Southeast						
Ketchikan	1.02	.81	1.00	.19	1.02	1.00
Wrangell	1.00	.86	1.08	.14	1.02	1.00
Petersburg	1.00	.79	1.05	.22	1.01	1.00
Sitka	1.02	.82	1.03	.18	1.02	1.00
Juneau	1.03	.86	0.98	.14	1.02	1.00
Central and Northern Southeast						
Kake	1.05	.67	1.30	.33	1.13	1.10
Chatham	1.07	.75	1.21	.25	1.10	1.10
Hoonah	1.03	.81	1.24	.19	1.07	1.10
Pelican*	1.03	NP	NP	NP	1.07	1.10
Other Southeast						
Haines	1.02	.78	1.07	.22	1.03	1.03
Skagway	1.03	.75	1.11	.25	1.05	1.05
Yakutat	1.21	.78	1.19	.22	1.20	1.20
Prince William Sound						
Cordova	1.18	.84	1.37	.16	1.21	1.20
Chugach	1.13	.69	1.36	.31	1.20	1.20
Valdez	1.06	.83	1.17	.17	1.08	1.06
Copper River	1.13	.72	1.12	.28	1.13	1.13
Anchorage Urban Influence Area						
Anchorage (Base District)	1.00	.88	1.00	.12	1.00	1.00
Matanuska-Susitna	1.00	.86	1.01	.14	1.00	1.00
Kenai Peninsula	1.01	.81	1.01	.19	1.01	1.00
Kodiak	1.06	.83	1.15	.17	1.08	1.08

Table I-3 continued

School District Personnel, Nonpersonnel and Total Differentials

(Anchorage District = 1.00)

District	Personnel Differential	Personnel Expenditure Weight	Non Personnel Differential	Nonpers Expenditure Weight	Total District Differential	Recommended Differential
Alaska Peninsula and Aleutian Islands						
Adak	1.32	.69	1.25	.31	1.30	1.29
Pribilofs	1.32	.61	1.38	.39	1.34	1.40
Aleutian (Region) East	1.32	.59	1.37	.41	1.34	1.33
Unalaska	1.30	.71	1.27	.29	1.29	1.29
Dillingham	1.30	.79	1.24	.21	1.29	1.29
Bristol Bay	1.35	.64	1.31	.36	1.33	1.33
Lake and Peninsula	1.35	.65	1.31	.35	1.34	1.33
Southwest	1.35	.71	1.27	.29	1.33	1.33
Yukon and Kuskokwim Delta						
Lower Kuskokwim	1.39	.71	1.43	.29	1.40	1.40
Yupiit*	1.39	NP	NP	NP	1.40	1.40
Kashunamiut	1.39	.70	1.31	.30	1.37	1.37
Lower Yukon	1.38	.68	1.35	.32	1.37	1.37
St. Mary's	1.38	.64	1.35	.36	1.37	1.37
Interior Remote						
Kuspuk	1.37	.68	1.23	.32	1.34	1.33
Iditarod	1.32	.69	1.22	.31	1.29	1.33
Galena	1.32	.74	1.33	.26	1.33	1.33
Yukon-Koyukuk	1.39	.63	1.18	.37	1.31	1.33
Yukon Flats	1.39	.63	1.32	.37	1.36	1.36
Tanana*	1.32	NP	NP	NP	1.33	1.33
Interior Road System						
Alaska Gateway	1.10	.68	1.14	.32	1.11	1.14
Delta/Greely	1.10	.83	1.14	.17	1.11	1.14
Nenana	1.14	.75	1.22	.25	1.16	1.14
Railbelt	1.14	.75	1.14	.25	1.14	1.14
Fairbanks	1.03	.84	1.01	.16	1.03	1.03
Arctic						
North Slope	1.53	.78	1.34	.22	1.49	1.49
Northwest Arctic	1.41	.71	1.49	.29	1.43	1.43
Nome	1.41	.77	1.18	.23	1.36	1.36
Bering Straits	1.34	.68	1.53	.32	1.40	1.40

* Not Provided. District did not return *School District Survey*.

Summary of Results (See Table I-3)

Personnel Differentials and Expenditure Weights
Personnel (household cost of living) differentials range from 1.00 to 1.53 but they also fall into four very distinct groups - Arctic, Aleutian and Interior remote, districts with convenient access to major regional centers, and urban districts.

The highest differentials are in the Arctic region topped by the 1.53 cost of living differential in the North Slope district. Two other northern districts - Northwest Arctic and Nome - shared the next highest cost of living of 1.41.

The largest group, the 20 Aleutian and Interior Remote districts had cost of living differentials ranging from 1.30 to 1.39, only nine points. This narrow range is the differential for districts which are truly remote from major regional centers but are not true arctic districts. These twenty districts stretch in a solid band from the tip of the Aleutian Chain through the Yukon River, Kuskokwim River and Bristol Bay drainage systems to the Alaska/Canada border in the Eastern Interior.

Districts with reasonable road or ferry access to regional centers of Ketchikan, Juneau, Anchorage or Fairbanks fall into a third group with differentials of 1.01 for some smaller Southeast districts to 1.10 and 1.14 for all the interior road system districts.

Fourth, urban districts with most of the state's population are grouped closely about the 1.00 base level and range only to 1.03. This group includes Anchorage, Fairbanks, Matanuska-Susitna, Kenai Peninsula, Juneau, Ketchikan and Sitka. Essentially, urban Alaskans experience about the same cost of living.

Nonpersonnel Differentials and Expenditure Weights
Nonpersonnel differentials had nearly the same range as personnel differentials - 0.98 to 1.53. However, their pattern among districts is different than the personnel differential. Rarely were the personnel and nonpersonnel differentials the same in any one district. This supports the original premise of this study which was that, in most districts, nonpersonnel costs are at different levels than personnel costs. Personnel and nonpersonnel costs differed by ten or more points in 17 districts and by at least five points in 31 districts.

District size, not living costs, was a major determinant of high nonpersonnel costs. Even in small districts of Southeast Alaska where household costs tend to be reasonable, nonpersonnel costs were high. In small communities with

small schools several nonpersonnel costs were significantly higher than in urban areas. Utilities rates, fuel prices, insurance, travel and professional/technical services are significantly more expensive in small communities than in urban areas.

Ten districts including all major urban districts had nonpersonnel differentials of less than 1.10. Another eleven had differentials between 1.10 and 1.19. These tended to be smaller urban areas and small districts with road access to Anchorage and Fairbanks. Twelve districts including most of rural Southeast had differentials in the 1.20's and a nearly equal number (14) scored in the 1.30's. Many in the 1.30's group were in that remote Aleutian and Interior region where household costs of living tended to be so uniform, also in the 1.30's. Final, only three districts scored nonpersonnel differentials above 1.40 - Lower Kuskokwim (1.43), Northwest Arctic (1.49) and Bering Straits (1.53).

Readers should keep in mind that in many districts serving smaller communities nonpersonnel differentials are modified by an adjustment factor for facilities costs (utilities and property insurance) to avoid double payment for low density student populations by both the foundation formula and the differential. Again, the differential is an adjustment for price differences while the foundation formula compensates for the inherent inefficiency of providing education to dispersed and lower density student populations.

Nonpersonnel expenditure weights are typically 12% to 20% in urban districts reflecting the lower prices of most nonpersonnel market basket items from insurance to travel to utility and fuel prices. Anchorage spends a smaller portion of its budget than any other district, 12%, on nonpersonnel costs. MatSu and Juneau spend 14% and Fairbanks, 16%.

At the other extreme are seventeen districts, all but one of them remote, which spend over 30% of their budget on nonpersonnel costs. The Aleutian Region and the Pribilof districts devote a larger portions of their budget to nonpersonnel costs than any other districts - 41% and 39%, respectively.

Analysis of District Statistics

The *Alaska School District Profiles and Differential Study* also includes information not related to differentials. Chapter IV of this study volume provides tables and written analysis of selected district fiscal, enrollment, personnel and facility data. Additional data and ratios (per ADM) for each district are also included in Volume II of this study, *District Profiles*. The appendix to Volume I includes a sample district profile from Volume II. Readers are referred to Chapter IV of Volume I and to Volume II for detailed

data and analysis of district statistics. Following is a brief summary of some of the data analyzed in Chapter IV.

Budget Analysis per ADM
School Operating Fund (01 fund) total, personnel and nonpersonnel budgets, State funding and other funding are all analyzed on a per ADM basis.

Total budgets per ADM (meaning per student, more or less) range from a low of less than $4,600 for the Anchorage base district which has the largest and most dense - and therefore the most efficient to serve - student population to a high of just under $19,500 for the North Slope district. Urban districts typically spend up to $6,000 per ADM while 20 small and remote districts spend over $10,000 per ADM.

North Slope expenditure and personnel levels are unique among districts and the following brief discussion explains some factors which contribute to this. The North Slope has the highest cost differential (1.49) and, like many other remote Northern and Western Alaska districts, it also provides education for a student population in several scattered funding communities. In addition, the North Slope has made an enormous local financial commitment to upgrading the education of their population. According to district officials, the percentile competency scores of grade school students have increased dramatically from a depressing 11th to the 32nd percentile in the past four school years. In terms of State foundation funding, the North Slope receives about $6,200, less than 25 other districts and about the same as Lower Yukon, Skagway and Kake. However, funding from other sources, primarily local, triples this amount.

Personnel expenditures vary from less than $5,000 for the major urban districts to $15,163 for the North Slope. Only three other districts spend as much as $10,000 per ADM on personnel.

Nonpersonnel spending per ADM is more widely scattered, ranging from just $568 for Anchorage and less than $1,000 for the other major urban districts to a peak of nearly $8,000 for the tiny Aleutian Region. The spread between the districts with the highest and lowest per ADM personnel costs was a factor of just under four ($4,000 vs. $15,000). But in nonpersonnel costs the spread is a factor of fourteen (from under $600 in Anchorage to $8,000). Nonpersonnel costs per ADM tended to be highest in the districts with very small communities.

State funding per ADM averages less than $3,500 in major urban areas and is typically $6,000 to $10,000 in many remote districts. The extremes are seven districts receiving over $10,000 with the Aleutian Region over $15,000 per ADM in State foundation funding.

Funding from other sources in major urban areas ranges from $1,300 (MatSu) to $2,200 (Fairbanks). The North Slope and Valdez are the leaders in the other funding category with $13,310 and $6,311, respectively, most of it from local sources. The districts with the least funding from other sources are the seven receiving less than $1,000. Most of them are districts serving smaller though not remote communities such as Skagway (lowest at $379), Nenana and Copper River.

Enrollment, Personnel and Facility Analysis per ADM

Personnel ratios per 100 ADM are analyzed as are the relationships between enrollment and instructional units.

District enrollments range from slightly more than 100 students in small single site districts to over 38,000 in Anchorage. But of more interest is the relationship between total enrollment (1st count ADM) and the number of instructional units granted each district by the school foundation formula. An instructional unit is the basic funding unit for public schools and is worth about $60,000 per unit.

This analysis of students per funding unit shows a low of 4.0 ADM per instructional unit in the tiny Chugach district to 12.4 in the Anchorage district. Urban areas typically have 11 to 12.4 students per instructional unit of funding while many small and multisite districts receive an instructional unit for every 5 to 8 students. This is simply another way to express the efficiency differences caused by dispersed and lower density student populations.

Another measure of what districts provide is the number of square feet of instructional building space per student. Anchorage is the most efficient district with only 134 square feet of instructional space per student. Other major urban districts typically provide 140 to 150 square feet. By contrast, ten districts provide over 300 square feet with a high of 414 per ADM in the North Slope. In general, remote districts use about twice the instructional space per student because low density and dispersion cause inefficient use of buildings compared to the compactness possible in large urban area schools.

Personnel per 100 ADM reveals the same results as other data. Generally, major urban districts, which devote over 80% of their budgets to personnel still provide just 9 to 10 total personnel per 100 ADM. They also employ about twice as many certified as classified personnel. Anchorage, for example, employs six certificated and three classified per 100 ADM.

In contrast, sixteen districts employ 18 or more personnel per 100 ADM with a high of 30 for the North Slope. These districts, of course, are remote ones serving mostly small communities. Further, districts with high personnel/student ratios tend to hire about as many classified as certificated

personnel. A few districts hire more classified than certificated. A typical remote REAA might employ 11 certificated and 10 classified personnel per 100 ADM compared to the typical urban ratios of 6 and 3, respectively.

Summary of Methodology

Personnel Differential Methods and Data

While the overall study collected data on salary levels and other personnel costs for the profile portion, the only data used for the personnel cost differential was the household cost of living in the 55 (53 in FY 1990) school districts. Again, the sole basis for the personnel differential is household cost of living, not average salaries paid and not salary schedules.

Virtually all household data was derived from the comprehensive data base of the 1985 *Alaska Geographic Differential Study* done by The McDowell Group for the State of Alaska Department of Administration, Division of Labor Relations. The study surveyed nearly 2,500 households in 91 communities and collected retail prices from 2,100 retail outlets in 54 communities. The results were combined into the 19 Alaska election districts which the State uses for their differential districts. The household cost of living market basket included 310 items in the seven major Consumer Price Index household expenditure categories of housing, food, transportation, clothing, recreation and entertainment, medical and miscellaneous.

To meet the needs of the school district study this data base was disaggregated and then reorganized into the 55 school districts. Then a differential was calculated for the household cost of living in each of those districts. Because the original study sample was designed for 19 rather than 55 districts, data for some small school districts was either not available or was not considered statistically sound due small sample sizes or other factors. To compensate for these cases several rules were developed which provide each district with data considered sound for differential purposes. A summary of these rules follows:

- When data was missing (for example, no retail price surveys were conducted in some districts) data from the closest most similar district was substituted. If data from the closest most similar district was not available, data from the larger original district in the 1985 study was used.

- When household and price data appeared outside the normal limits of the original study, data from the closest most similar district was substituted. For example, in the original study no more than 36% of any district's household budget was spent on food. If a district with a small household sample size showed a food expenditure weight well beyond 36%, then data from the

closest most similar school district or from the original 1985 district was substituted.

• In general readers should keep in mind the basic results of not only the 1985 study but past major studies conducted in 1972 and 1976. Two findings are of importance:

1. The most significant finding is that housing in most districts is less expensive than in Anchorage but that Anchorage's everyday retail prices are the state's most favorable. These tend to balance each other out in most urban areas but in rural areas the high everyday prices cause higher differentials.

Essentially, there are four groups of cost of living differentials - urban Alaska, small communities with easy and inexpensive access to regional centers by road or ferry, remote rural communities and true Arctic locations. The cost of living in urban Alaska is essentially the same from Ketchikan to Fairbanks, varying only from 1.00 to 1.03. Communities with easy access to regional centers fall into the 1.01 (small Southeast communities) to 1.14 (Railbelt, Copper River) range. Finally, the cost of living in remote areas from the Aleutians to the Alaska/Canada border in the Interior is remarkably similar with differentials of 1.30 to 1.40 covering all cases. Only true Arctic districts exceed 1.40.

2. The second significant finding is that differences in cost of living among Alaska locations change little over time. For example, the difference in cost of living between Bethel and Anchorage is about the same as it was nearly 20 years ago. Therefore, the use of a 1985 data base for 1988 differentials is appropriate, though the 1986-88 recession in urban Alaska has affected housing costs in the short run. However, some significant changes have occurred in some locations over the past 20 years and the cost of living data base should be updated every several years.

Nonpersonnel Differential Methods and Data

Thirty nonpersonnel expenditure items in eight major school district expenditure code categories are used to compute differentials in nonpersonnel costs. Data was collected through the *School District Survey*, a comprehensive survey of expenditure patterns completed by 51 of the 55 districts existing in FY 1988, and a School District *Vendors' Survey* of dozens of firms doing business with Alaska's school districts. Both surveys were conducted specifically for the nonpersonnel differential in this study. See Chapter III for detailed methodology and results of these surveys.

Following is a brief description of methods used to develop a nonpersonnel differential for school districts. See Chapter III for detailed nonpersonnel differential methodology and results.

Professional/Technical Services (Budget Code 400)
Legal, audit and inservice training were the professional/technical services market basket items.

Legal Services
Legal costs were based on the hourly rate charged by lead attorneys - usually about $135 - plus travel and per diem to the central office of each district for those districts which did not use local attorneys. If any district lead attorney rate was significantly higher or lower than the normal rate, it was assigned the $135 standard rate. Travel costs were added to the fees for a typical travel assignment of one work day. Interviews with legal firms revealed that about 30% of the their time was spent onsite and 70% in their own offices. Therefore, travel costs were added to only 30% of the legal fees.

The legal differential is the cost difference between performing all work in Anchorage and 30% of the work onsite.

Audit Costs
Interviews with the four firms which conduct most district audits revealed fairly standard fees depending on the size of the district budget. In addition, the audit firms specified the amount of total time which would be spent onsite (and therefore subject to travel and per diem costs). Actual audit costs paid by districts varied significantly and did not allow a basis for differential comparison. Instead, audit firm standards for districts for specified budget sizes were used.

The audit differential is the cost difference between performing a district's audit without travel and per diem and performing the audit with a portion of it being onsite. About 40-60% of the professional time for an audit is spent onsite.

Inservice Training
Inservice training policies and expenditures varied dramatically among districts. However, the district surveys revealed that $250 per day in fees and a three-day assignment were the most common parameters for contract inservice training professionals. Travel and per diem costs from a central out-of-state point to each district office was calculated.

The differential is the difference in total costs (fees, travel and per diem) between sending that professional to regional centers (Anchorage, Juneau and Fairbanks) and other districts.

Communications (410)
The communications market basket included long distance telephone, local telephone charges and postage (a combination of postage and parcel post shipping).

Long Distance Telephone

According to district surveys the three most commonly called locations were Anchorage, Juneau and Fairbanks. The study team calculate the total cost of calling these locations from each district. The standard was a ten-minute daytime weekday station call. This cost was compared to the cost of Anchorage placing two calls (one to Fairbanks, the other to Juneau) and the differential calculated. Out-of-district calls account for most of the long distance expense even for multisite districts. Therefore, all long distance expenditures are given the out-of-district differential.

Local Telephone Service

A standard business telephone system (three-line rotary roll-over) monthly charge was selected as the basis for cost comparison. School district systems do not follow any particular patterns so this system was priced in each of the districts and its cost compared to the Anchorage price.

Postage

Postage budgets were split into two parts for single site district and three for multisites. Normal postage and parcel post packages of less than two pounds, which cost the same everywhere, were assumes to be 60% of the budget and the other 40% was parcel post shipping for packages over two pounds. The cost of shipping parcels over two pounds varies depending on the distance shipped. These larger packages were assumed to be shipped to both Juneau and to parcel post zone 8 (outside Alaska) from each district.

The differential is the cost of normal postage plus larger package shipping in each district as compared to Anchorage.

Insurance (415)

Property insurance rates were quoted by the two companies which insure the majority of districts. Essentially, three rates prevail for Alaska school districts - urban, remote sites with good condition buildings and remote sites with poor condition buildings. The urban rate is much lower than the remote rates which are only about 10% apart. Districts were divided into the three groups based on the urban - remote criteria and the condition of remote district buildings was taken from the district survey of facilities which rated buildings on a four-point condition scale.

Then the rates were adjusted to avoid double compensation for facilities costs. The foundation formula already compensates for the inefficiency of small site districts by having a declining formula as the size of funding communities increases. Unless the unit prices of facilities-related costs are indexed the foundation formula plus the differential result in mathematically inflated funding levels for small districts.

The adjustment index is the number of square feet per student. The unit price of insurance is divided by this index to come out with the actual property insurance differential used in this study.

Liability insurance, though included in the expenditure weights of school districts, is given the base differential because rates are not sensitive to geographic location.

Travel (420)

Out-of-district travel and intradistrict travel (for multisite districts) are the two items in this market basket. Student activity travel and pupil transportation (school busses) are not included because they are not paid for out of 01 funds being studied in this report.

Out-of-District Travel

Virtually all districts traveled most commonly to Anchorage and Juneau. Travel costs assume trips to each location from each district's central office. The air fare is weighted by the frequency of travel to each location as reported on the district survey. Then three days per diem ($300) are assumed for the typical trip to either location.

The total of the weighted air fare and per diem is the amount credited to each district. The base district (and Juneau) are credited with one trip plus three days per diem since they have the advantage of not having to fly to one location. The differential is the difference between the two trips from each district and the one trip from the base district.

Intradistrict Travel

The cost of travel to the three most common intradistrict locations - as stated in the district survey - was calculated on a per round trip mile basis. This was compared to the cost per round trip mile within the base district. The difference is the intradistrict travel differential.

Utilities (430)

The utility market basket consisted of heating fuel, electricity and a combined other utilities category which included water, sewer and solid waste disposal.

Fuel

Districts were divided into five groups based on what they paid per gallon for heating fuel in FY 1988. Then an average per gallon price was calculated for each group. Each district within the group was assigned the group's average price. This was done to allow for yearly variations in fuel prices, to avoid penalizing districts which negotiated lower than normal prices and not reward districts which may have paid unnecessarily high prices. The base district price is then the average paid for heating fuel in Alaska's seven largest urban areas.

Next, the facilities index was applied to the per gallon price for each group, again to avoid double compensation for building inefficiency. That index is the square feet per student for each group of districts. Then this is compared to the same indexed price in the base district to calculate the differential.

Electricity

Electricity is calculated in a manner identical to the fuel differential. The same groupings were used and the price then divided by the index of square feet per student.

Other Utilities

Since unit costs are not available for water, sewer and waste disposal in most districts, a slightly different method was used. A cost per square foot for other utilities was calculated using data from the district survey. Then this cost was indexed by dividing it by the same factor as were fuel and electricity.

Other Purchased Services (440)

Equipment repair services for copiers, typewriters and computers are the market basket in this category. Hourly rates were identified from the district surveys and by surveying vendors. The most common rate was selected and applied to all districts. Rates vary little among districts as the real variable is travel costs.

Copier and typewriter repair services were assumed to be onsite and the differential for them is simply the difference between having and not having travel costs. Computer repair and maintenance were assumed to be at central locations so shipping costs were added from each district to a regional center.

Supplies, Materials and Media (450)

A market basket of twelve items for teaching supplies (3), janitorial supplies (4), office supplies (3) and textbooks (2) was created for this major expenditure category. Vendors for these items were often the same ones for most districts so districts were assigned the most common vendor. Then the items were priced and shipped from the vendor to each district via the most commonly used transportation mode.

The total costs were then compared to FOB Anchorage prices for the same items in the same quantities from the same vendors, the difference being the differential. This prevents comparisons of Anchorage district purchasing practices with those of small districts. In reality, the FOB Anchorage price from the vendors which supply most outlying districts are nearly the same as those secured from Anchorage vendors by the Anchorage district bid process.

Equipment (510)
This market basket consisted of the most commonly purchased model and brand of copier, projector, VCR and VCR camera. They were priced and shipped from the most common vendors for each item via the most common type of transportation used in each district. Freight and parcel post rates were researched and applied to each piece of equipment according to its shipping weight. The total cost was then compared to the same items FOB Anchorage from the same vendors.

Alaska School District Profiles and Differential Study

Volume I
Summary and Analysis

Prepared for:

Legislative Budget and Audit Committee
Alaska State Legislature

Prepared by:

The McDowell Group
a Division of
Data Decisions Group, Inc.

in Association With
Dr. Nat Cole

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Introduction

The *Alaska School District Profiles and Differential Study* is a two-volume study produced during 1988 at the request of the Legislative Budget and Audit Committee of the Alaska State Legislature by the McDowell Group, Alaskan economic and market consultants, in association with Dr. Nat Cole, a noted Alaskan education consultant.

Purpose

The study has two purposes. One is to provide a comprehensive geographic cost differential for each of the 53 public school districts scheduled to be in existence in Fiscal Year 1990, the next State budget cycle. Data from the current fifty-five districts were studied as three districts - Aleutian Region, Sand Point and King Cove - will merge in FY 1990, reducing the total to 53. The second purpose as directed by the Committee is to develop an information base on school districts for convenient use by decision makers.

Study Background

Of particular importance was the Legislative Budget and Audit Committee's direction to study all of the operating costs financed by the School Foundation Fund, commonly referred to in education circles as the 01 Fund. The result was a study design which measured both personnel and nonpersonnel costs. Previous school district differentials had been based only on household cost of living data and did not include consideration for nonpersonnel costs.

Until this current study, little was known of the comparative cost of operating widely different school districts in 53 distinctly different areas of Alaska. What was known was the relative cost of operating a household (household cost of living) in 19 areas of Alaska. This information was the result of the 1985 McDowell Group work, the *Alaska Geographic Differential Study*. In the past, these household cost differences were used to represent differences in operating school districts, a sometimes tenuous assumption since school districts rarely resemble households. This assumption was valid to the extent that personnel costs account for most of a typical district's operating cost. This study, *Alaska School District Profiles and Differential Study*, directly addresses and researches the costs of operating school districts and includes both personnel and, for the first time, nonpersonnel costs.

The study does not cover all aspects of public school finance. There are actually four areas of public school funding of which this study deals in detail with just one - differentials necessary to compensate for price differences among districts. And even more specifically, the study researches price differences for school expenditures covered by the 01 Fund, the basic fund which covers most school district operations. The study does not deal with the school foundation formula, capital costs or the criteria for other funding such as local contributions, PL 874, special programs, pupil transportation or extra curricular travel.

A companion to the differential is the school foundation formula. Though separate from the differential, its purpose also is to compensate for additional cost - that of providing education in locations with dispersed and lower density student populations. It simply takes more personnel, buildings, building space, travel, supplies and materials to provided education in a district of 10 communities with 200 students each than in a district consisting of one community with 2,000 students. It is simply less efficient per student, and therefore more costly, even if prices in the two districts are identical.

The school foundation formula compensates for this inherent inefficiency by granting more dollars per student to communities with fewer students. It does not compensate for differences in prices of nonpersonnel items or in the household cost of living. That is the function of the differential under study in this report. In most cases, the foundation formula is far more significant in allocating funding to districts than is the differential.

Content

Volume I, *Summary and Analysis*, provides complete results, recommendations and methodologies for the first purpose of the study. That is, to provide comprehensive differentials for districts. Volume I also contains additional data and ratio analysis of selected statistics on district fiscal, personnel, enrollment and facilities. Volume II, *District Profiles*, addresses the second purpose of providing an information base.

Volume II contains detailed profiles for the 53 districts. Each district profile contains three types of information. First is social, economic, geographic (including a district map) and governmental information about the district itself. The second is a FY 1988 profile of the district's fiscal data, personnel, facilities and enrollment. Finally, the last page of each profile contains the calculations and results of the district's geographic cost differential. This last section includes detailed data for the personnel, nonpersonnel and overall district differentials, data which are not presented in district format in Volume I. The profiles are typically 4 to 6 pages in length depending on the size of the district.

Volume II places a complete and relevant picture of Alaska's public school districts in one convenient and easily digestible document. Political and administrative decision makers have long been handcuffed by lack of reliable and consumable data on one of the State's most important and most expensive issues - public education.

Using these profiles, a single district can evaluate their operations in terms of personnel/enrollment ratios, maintenance efficiency for facilities, quality of facilities, expenditures per 100 ADM and many other measures. All of these can be compared to the same measures in every other district. Each district also has data showing the characteristics of the district itself such as population, average income, employment, unemployment, subsistence dependency, ethnic composition, climate data including heating degree days, transportation systems, district size, land status and political systems.

Districts can compare their costs for each of seven major household and eight major nonpersonnel expenditure categories by referring to the last page of each profile. For example food, transportation and clothing costs for households as well as equipment, utilities and travel costs for districts are some of the costs shown in each profile. Unique district expenditure patterns for personnel and nonpersonnel costs can also be identified and compared by using Volume II in this manner.

Methodology

Methodology for the *Alaska School District Profiles and Differential Study* utilized both survey and secondary research. The household cost of living in each district was used to represent differences in personnel costs. While district pay scales and actual salaries paid were examined, they were not used as the basis for personnel costs. It was observed that starting salaries in most districts closely paralleled the actual cost of living. But further up the scale this correlation faded. In general, urban scales rose at a more rapid rate, increasing actual personnel costs substantially with longevity. Therefore, what is actually paid in terms of average salary is primarily a function of negotiating policy, not cost. This eliminated salary scales and average salaries as objective measures of true cost.

District cost of living differentials were calculated by disaggregating and reorganizing the massive data base from the 1985 *Alaska Geographic Differential Study* from 19 larger districts to 53 school districts. Since the data base involved 2,500 households in 91 communities and 2,100 retail outlets in 54 communities, at least some data existed to compute a differential for each school district. Since differences in cost of living among Alaska locations tend to remain stable or change only slowly, the data was considered valid for the study. The alternative of resurveying in 53 districts would have been far beyond the budget limits of this study.

A comprehensive School District Survey, completed by 51 of the 55 current districts provided detailed budget data, a personnel inventory, a complete building by building facilities inventory plus a comprehensive survey of district purchasing patterns for each of the 30 items selected for the nonpersonnel market basket including, for example, utilities, insurance, teaching supplies, professional/technical services and equipment. Much of the data from this survey was used for both the differential calculations and the district profiles in Volume II.

A companion survey also done for this study was a School District Vendor Survey of dozens of firms serving Alaska school districts. Collected were current prices of all nonpersonnel items, shipping methods and costs, pricing policies and further information on district purchasing patterns.

Finally, a number of secondary sources were utilized, especially for the social, economic, geographic and governmental portions of the district profiles. District statistics provided in the surveys were supplemented by Alaska Department of Education reports, district audits and other sources.

I. Summary of Results and Recommendations

I. Summary of Results and Recommendations

Recommended School District Differentials

Table I-1 is a comparison of the final recommended differentials from this study and the existing differentials currently in force in state statute through FY 1989. It is suggested that readers consider three critical points when viewing the recommended differentials and those in the existing statute:

1. Study results should be expected to differ from existing statute differentials. Existing statute differentials are based solely on the 1985 McDowell Group work, *Alaska Geographic Differential Study* (with minor adjustments in some districts for multisite districts and as a result of an arbitrator's opinions). This study is in turn based solely on the household cost of living, not the cost of operating a school district. Further, the 1985 study provided differential data for only 19 election districts. These results were generalized to the 55 (to be 53 for FY 1990) school districts contained within the 19 election districts.

This current study,*Alaska School District Profiles and Differential Study,* differs in two significant respects. First, it is the first to include all costs of operating a school district in the differential formula. Second, this study provides data specifically for each school district for both household cost of living and for nonpersonnel district operating costs. Because of these fundamental differences, study results were not expected to mirror existing differentials. In short, operating a household is rarely the same as operating a school district and should not be expected to cost the same.

2. In nearly all cases, the differential is less important to district funding levels than the school foundation formula. The school foundation formula is designed to compensate for higher costs due to the inherent inefficiency of providing education in locations with dispersed population and lowe student density. On the other hand, the differential in this study is designed to correct for higher costs due to higher prices, not inefficiency. A common result of the two forms of compensation is that districts with the same differential often receive different amounts of funding on a per student basis.

The most extreme foundation formula cases are the districts with very small communities. For example, in FY 1988 the Chugach district received only 11%

more funding per student because of the differential. By contrast it received 179% more dollars per student due to the foundation formula. In FY 1988 the Railbelt district had an additional 23% from the differential and 25% per student from the foundation formula. Many larger districts are also affected. The Kenai Peninsula district receives no differential because living costs are essentially the same as in Anchorage. But it does gain 16% more dollars per student from the foundation formula because it serves a moderately dispersed and less dense student population. See Chapter IV for a detailed discussion of the relationship of the foundation formula and the differential.

3. The small amounts of household cost of living data available in some groups of districts mean that raw study results are subject to moderate error, and therefore inequity. An improvement in accuracy results from averaging the differentials of similar districts which have limited data. Specifically, group averages are recommended for most districts in the rural Southeast Alaska, Alaska Peninsula and Aleutian Islands, Yukon and Kuskokwim Delta, Interior Remote and Interior Road System groups. See Table I-2 in this chapter for comparison of study results and recommended differentials.

Table I-1

Comparison of Recommended Differentials and Existing Statue Differentials

(Anchorage District = 1.00)

District	Recommended Differentials	Statute Differentials	Difference
Southern Southeast			
Annette Island	1.08	1.03	0.05
Craig	1.08	1.03	0.05
Klawock	1.08	1.03	0.05
Hydaburg	1.08	1.03	0.05
Southeast Island	1.08	1.04	0.04
Urban Southeast			
Ketchikan	1.00	1.00	0.00
Wrangell	1.00	1.00	0.00
Petersburg	1.00	1.00	0.00
Sitka	1.00	1.00	0.00
Juneau	1.00	1.00	0.00
Central and Northern Southeast			
Kake	1.10	1.03	0.07
Chatham	1.10	1.03	0.07
Hoonah	1.10	1.08	0.02
Pelican	1.10	1.08	0.02
Other Southeast			
Haines	1.03	1.05	-0.02
Skagway	1.05	1.05	0.00
Yakutat	1.20	1.08	0.12
Prince William Sound			
Cordova	1.20	1.11	0.09
Chugach	1.20	1.11	0.09
Valdez	1.08	1.11	-0.03
Copper River	1.13	1.14	-0.01

Table I-1 continued

Comparison of Recommended Differentials and Existing Statue Differentials

(Anchorage District = 1.00)

District	Recommended Differentials	Statute Differentials	Difference
Anchorage Urban Influence Area			
Anchorage (Base District)	1.00	1.00	0.00
Matanuska-Susitna	1.00	1.00	0.00
Kenai Peninsula	1.00	1.00	0.00
Kodiak	1.08	1.09	-0.01
Alaska Peninsula and Aleutian Islands			
Adak	1.29	1.27	0.02
Pribilofs	1.40	1.30	0.10
Aleutian (Region) East	1.33	1.31	0.02
Unalaska	1.29	1.27	0.02
Dillingham	1.29	1.27	0.02
Bristol Bay	1.33	1.27	0.06
Lake and Peninsula	1.33	1.31	0.02
Southwest	1.33	1.31	0.02
Yukon and Kuskokwim Delta			
Lower Kuskokwim	1.40	1.42	-0.02
Yupiit	1.40	1.41	-0.01
Kashunamiut	1.37	1.33	0.04
Lower Yukon	1.37	1.35	0.02
St. Mary's	1.37	1.30	0.07
Interior Remote			
Kuspuk	1.33	1.33	0.00
Iditarod	1.33	1.33	0.00
Galena	1.33	1.30	0.03
Yukon-Koyukuk	1.33	1.34	-0.01
Yukon Flats	1.36	1.46	-0.10
Tanana*	1.33	1.30	0.03
Interior Road System			
Alaska Gateway*	1.14	1.19	-0.05
Delta/Greely	1.14	1.16	-0.02
Nenana	1.14	1.20	-0.06
Railbelt*	1.14	1.23	-0.09
Fairbanks	1.03	1.04	-0.01
Arctic			
North Slope	1.49	1.45	0.04
Northwest Arctic	1.43	1.45	-0.02
Nome	1.36	1.34	0.02
Bering Straits	1.40	1.39	0.01

Summary of Results

Changes were modest considering the differences in the origin of the recommended and statute differentials. Forty-two of fifty-three district differentials changed by five points or less and over half of all district differentials (29) changed by less than three points. Eleven of those remained the same.

Of the eleven district differentials changing by more than five points, all had statute differentials that were not based on data specifically for their districts. The largest gain was Yakutat (+12) and the greatest loss was Yukon Flats (-10). The district specific data in this study supports the recommended differentials. In virtually every one of the following cases, the new nonpersonnel cost data is consistent with the revisions in the household data.

Valdez (-5), Cordova (+9) and Chugach (+9) had been assigned the same overall Prince William Sound differential, 1.11, because their data had been combined in the 1985 study. When disaggregated, the data clearly showed a significant difference between Valdez and Cordova cost of living, Valdez being less expensive. The nonpersonnel survey also identified significant cost differences.

Yakutat, Kake (+7) and Chatham (+7) had been combined with less expensive urban areas of Haines/Skagway, Wrangell/Petersburg and Sitka, respectively. When separated, their higher living costs became obvious. Higher costs in these communities were also confirmed by the results of the nonpersonnel cost research in this study. Yakutat, as the most isolated of these, had the largest gain.

Railbelt and Nenana, down six and nine points respectively, are locations with road access to major urban areas but previously had been combined with a larger interior remote [illegible]. Once the higher costs of the remote interior communities were rem[illegible]om data for communities with road access, more moderate differentials resulted.

Yukon Flats' statute differential was the results of an arbitrator's decision which classified it as an arctic district with costs at the North Slope level. However, district specific cost of living and nonpersonnel data place it conclusively in a more logical category with its closest geographic neighbors in the remote interior region south of the Brooks Range.

The St. Mary's district (+7) had been set at a low level due to an anomaly in the original Wade Hampton election district housing cost data. After adjustment for that exception, the district differential becomes average for the Yukon delta area.

The Pribilof district (+10), the most remote in Western Alaska, had an inadequate data base for computing a specific differential and had been assigned a level more typical of less isolated communities in the region. Adjustment for this inequity plus an addition of seven points for extreme costs resulting from exceptional isolation give the district a significant increase. Pribilof nonpersonnel costs are the Alaska Peninsula and Aleutian Island region's highest.

Recommended Differentials and Study Results

The results of the study reflect detailed analysis of both household cost of living data and district nonpersonnel operating costs. While the data are the most accurate and detailed ever used for school cost differentials, they are by no means perfect reflections of reality. This is especially true when comparing communities and school district operations which do not remotely resemble one another. Differences in local lifestyles, income, district spending patterns, student density, climate and dozens of other factors make the science of differential study less than a precision calculation.

While the study team believes the results are reasonable reflections of comparative costs they are not so precise as to eliminate inequity. For this reason the study team provides recommended adjustments to the final statistical results of the study. In the 1985 work, *Alaska Geographic Differential Study*, the professional team recommended that the State of Alaska consider grouping similar districts into a limited number of groups. The districts within each group would be assigned the same differential. This allows for very accurate measurement of costs in larger geographic areas already known to have roughly the same costs throughout each area. The study team makes the same recommendations for school district differentials.

The problem in both the 1985 study and this current study is one of hair splitting small amounts of data into even smaller districts. The accuracy of the data decreases as the number of households and retail outlets surveyed becomes smaller. A thorough reading of chapters II and III shows the procedures necessary to coax meaningful differentials out of small amounts of data in some districts.

Perhaps the most extreme examples are differentials in four areas of the state - rural Southeast, Alaska Peninsula and Aleutian Islands, Yukon and Kuskokwim Delta, and the Interior Remote districts which stretch from Kuspuk to Yukon Flats. Often, the personnel differentials for a single district would be based on a sample of a hand full of households and on retail prices in just one of several communities in the district. Even so, nearly all results came within the parameters of the larger, more accurate districts used in 1985 and the cost differences between adjacent districts with minimal data were surprisingly close. This is due in part to the quality of the original data and in part to the tight procedures for handling data representing small districts.

Table I-2 details the differences between recommended differentials and unadjusted study results contained in Chapters II and III and in Volume II, *District Profiles*. Following Table I-2 is the summary discussion of all adjustments leading to the recommended differentials.

Table I-2

Recommended School District Differentials

(Anchorage District = 1.00)

District	Study Results	Recommended Differentials
Southern Southeast		
Annette Island	1.07	1.08
Craig	1.06	1.08
Klawock	1.08	1.08
Hydaburg	1.11	1.08
Southeast Island	1.11	1.08
Urban Southeast		
Ketchikan	1.02	1.00
Wrangell	1.02	1.00
Petersburg	1.01	1.00
Sitka	1.02	1.00
Juneau	1.02	1.00
Central and Northern Southeast		
Kake	1.13	1.10
Chatham	1.10	1.10
Hoonah	1.07	1.10
Pelican	1.07	1.10
Other Southeast		
Haines	1.03	1.03
Skagway	1.05	1.05
Yakutat	1.20	1.20
Prince William Sound		
Cordova	1.21	1.20
Chugach	1.20	1.20
Valdez	1.08	1.08
Copper River	1.13	1.13
Anchorage Urban Influence Area		
Anchorage (Base District)	1.00	1.00
Matanuska-Susitna	1.00	1.00
Kenai Peninsula	1.01	1.00
Kodiak	1.08	1.08
Alaska Peninsula and Aleutian Islands		
Adak	1.30	1.29
Pribilofs	1.34	1.40
Aleutian (Region) East	1.34	1.33
Unalaska	1.20	1.29
Dillingham	1.29	1.29
Bristol Bay	1.33	1.33
Lake and Peninsula	1.34	1.33
Southwest	1.33	1.33
Yukon and Kuskokwim Delta		
Lower Kuskokwim	1.40	1.40
Yupiit	1.40	1.40
Kashunamiut	1.37	1.37
Lower Yukon	1.37	1.37
St. Mary's	1.37	1.37

Table I-2 continued

Recommended School District Differentials

(Anchorage District = 1.00)

District	Study Results	Recommended Differentials
Interior Remote		
Kuspuk	1.34	1.33
Iditarod	1.29	1.33
Galena	1.33	1.33
Yukon-Koyukuk	1.31	1.33
Yukon Flats	1.36	1.36
Tanana	1.33	1.33
Interior Road System		
Alaska Gateway	1.11	1.14
Delta/Greely	1.11	1.14
Nenana	1.16	1.14
Railbelt	1.14	1.14
Fairbanks	1.03	1.03
Arctic		
North Slope	1.49	1.49
Northwest Arctic	1.43	1.43
Nome	1.36	1.36
Bering Straits	1.40	1.40

Basis for Recommended Differentials

Southeast: The five Southern Southeast districts are assigned a recommended group differential of 1.08. Craig, Klawock and Hydaburg are within a few miles of one another and all have access to the same road system. Hydaburg's study result of 1.11 was inflated by a low personnel expenditure weight due to that district's exceptionally low pay levels. Given the average weights of this group of districts, the Hydaburg differential would have been 1.08. Southeast Island has the central office as well as a substantial district correspondence program in Ketchikan. Both of these factors lower costs. Also, Southeast Island's dispersion over multiple small sites is compensated for in the foundation formula.

The recommended group differential for Urban Southeast districts is the 1.00 base level. Urban Southeast districts have virtually the same personnel and nonpersonnel cost levels, all of them within a few points of the base district. Further, their extremely low nonpersonnel expenditure weights show the effects of moderate climate and other cost advantages not available to more northern isolated districts. While the study results are slightly higher (1.01 o 1.02), numerous past studies have continued to verify that cost of living and other costs are essentially the same in most of urban Alaska. Finally, the slight difference from the base level in urban Southeast household living costs is due almost entirely to local sales tax, not actual cost levels. Some debate exists as to including the effect of local sales tax, a local choice, in living cost comparisons. Sales tax is included in the Alaska data base used in this

study. In summary, the difference between base level and Southeast urban differentials is not considered statistically significant.

The four Central and Northern Southeast districts are assigned a recommended differential of 1.10, the average for that group. Though they do not fall into a convenient group of similar districts, they are subject to the same isolation factors and they experience higher retail costs than the southern group. Pelican, which did not return a survey, is assigned the 1.10 average. The one multisite district, Chatham, is compensated for lack of density through the foundation formula.

Haines, Skagway and Yakutat recommendations are simply the study results - 1.03, 105 and 1.21. The statute differential for these districts was based on an overall average and Yakutat's costs inflated those of the entire district. In turn, the lower costs in Skagway and Haines were the major factor in Yakutat's low existing statute differential. Yakutat's isolation, lack of access to regional centers and high everyday retail prices separate it from the rest of Southeast Alaska. Its costs are actually similar to those of the isolated locations in Prince William Sound - Chugach and Cordova.

Prince William Sound: Prince William Sound differentials are an example of the advantage of road access. Valdez and even Copper River have lower everyday retail prices and nonpersonnel costs than Cordova and Chugach. The recommended differential for Cordova and Chugach (which is based on Cordova) is 1.20, the same as Yakutat and virtually the same as the study results. Study results are also recommended for Valdez (1.08) and Copper River (1.13). The former Prince William Sound differential of 1.11 for all locations was simply the average for the area. Enough data exists in each location to show a clear and significant difference in Cordova and Valdez costs, both household and nonpersonnel.

Anchorage Urban Influence Area: The Anchorage Urban Influence Area recommended differential is 1.00 for the three districts of Anchorage, Matanuska-Susitna and Kenai Peninsula. The Kenai Peninsula study result is actually 1.01, similar to some urban Southeast districts and is not considered statistically significant. Further, the Kenai district is compensated an extra 16% per student by the foundation formula for lower density and multisites.

Kodiak: The study result of 1.08 is the recommended Kodiak differential. Kodiak has no really comparable district other than some of the Southeast urban districts such as Sitka or Ketchikan, both with differentials near 1.00. It is large enough to have retail competition, reasonable utility rates and moderate shipping costs. Kodiak also benefits from a relatively modest maritime climate. However, it is more isolated than Southeast Alaska and shows moderately higher costs as a result, especially for transportation.

Alaska Peninsula and Aleutian Islands: The Alaska Peninsula and Aleutian Islands is a region which suffers from limited data. The communities are small and the number of households and retail outlets upon which these differentials are based is also small. However, the range of study results is surprisingly narrow showing these districts are subject to essentially the same cost levels. This similarity is further verified by the relative closeness of the nonpersonnel differentials.

Two differential are recommended. For Dillingham, Unalaska and Adak, 1.29 is recommended. Sufficient data is available for Dillingham and Unalaska and the study result for both was 1.29. These districts also show lower than average nonpersonnel expenditures, an indication that facility costs are more reasonable than in other districts in the area.

Adak benefits from the district's relationship with the military and its nonpersonnel differential is lower than average for the region. Further, it is unlikely that district personnel pay everyday retail prices as high as those in the small site districts, though the personnel differential assigned to Adak was from a high cost area, Sand Point.

The recommended differential for the remaining districts in the Alaska Peninsula and Aleutian Islands group is 1.33, their average. One exception to this is recommended. The Pribilof district is clearly subject to more extreme cost conditions than others in this group. The nonpersonnel differential is the region's highest, 1.38. Though no household data is available it would most certainly reflect higher costs than those districts less isolated and distant. A 1.40 is recommended for the Pribilofs - the same differential as Lower Kuskokwim, Yupiit and Bering Straits.

Yukon and Kuskokwim Delta: Yukon and Kuskokwim Delta recommendations are the study results of 1.40 for two districts and 1.37 for three others. Historically, Lower Kuskokwim and particularly Bethel, have had some of the state's highest household costs of living. The district's nonpersonnel results mirror this at 1.43, third highest in the state. Yupiit, for which no household or nonpersonnel data is available is assigned the Lower Kuskokwim differential of 1.40 which is the closest district but not particularly similar. It could have as easily been assigned the 1.33 for Kuspuk, its neighbor to the east. However, the line for groupings was drawn at Kuspuk so Yupiit is included in the delta group.

Interior Remote: The Interior Remote group of six districts which extends from Kuspuk to Yukon Flats is assigned a recommended differential of 1.33, the average for the group. The exception is Yukon Flats which shared with Yukon-Koyukuk the group's highest household costs and the next highest nonpersonnel differential. Study results of 1.36 are recommended for Yukon Flats. While this is a significant change from their 1.46 existing statute

differential, that differential was set in arbitration and was not based on actual data. Actual Yukon Flats district data for both households and nonpersonnel show patterns and prices very similar to other Interior Remote districts but not near the level of the Arctic districts which must cope with more severe climate and higher transportation costs.

Of all groups, the Interior Remote districts had the most limited data available. No single community was large enough to have a desirable number of households and outlets surveyed. Yet all districts had at least some household and price survey representation study results were fairly uniform, ranging from 1.29 to 1.36. These results also closely mirrored the 1985 study results for larger districts in the same region. Yukon-Koyukuk's lower than average nonpersonnel differential is modified by the fact that a portion of their students attend Nenana schools.

Interior Road System: Interior Road System district differentials are tightly grouped at 1.11 to 1.16. The differential of another road system district, Copper River's 1.13, further supports this range. Two inequities are apparent in this group. Nenana's 1.16 is noticeably higher than the others in spite of easy access to Fairbanks prices. The second apparent inequity is the Alaska Gateway district which had no household or price data and was assigned Delta/Greely numbers as the closest district. However, the small Delta/Greely sample had lower than normal housing cost factors. Alaska Gateway, on the other hand, has less retail price competition and is not an easy drive to either Fairbanks or Anchorage. This situation is more like that of Copper River and Railbelt.

An overall Interior Road System differential of 1.14 is recommended. This is the average of the two districts (Nenana and Delta/Greely) for which both household and nonpersonnel data were available. While this may not be an ideal solution, it is the only alternative which can be based on actual data. Further, it provides Alaska Gateway with virtually the same differential as the two most similar district - Copper River and Railbelt. These three districts, especially Alaska Gateway, benefit significantly more from the foundation formula than Nenana and especially Delta/Greely.

Fairbanks: Study results of 1.03 are recommended for Fairbanks. The state's second largest district, while typically urban in virtually all of its cost data, does have both household (1.03) and nonpersonnel (1.01) differentials above the urban base. Further, it did report the highest per gallon cost for heating oil of any urban district, in spite of the presence of two local refineries. While districts with 1.01 and 1.02 overall differentials were held to the urban base, the Fairbanks level of 1.03 becomes significant and is recommended.

Arctic: Arctic districts vary a great deal in all respects and no group differential could apply. Study results are recommended for North Slope (1.49), Northwest Arctic (1.43), Nome (1.36) and Bering Straits (1.40). Both

Nome and North Slope districts spend a high proportion of their budget on personnel (78% and 77%, respectively), indicating high salaries and/or lower than normal nonpersonnel costs. The North Slope differential is more a result of high household cost of living than nonpersonnel costs which are modified by reasonable (by Arctic standards) utility costs in Barrow.

Personnel and Nonpersonnel Differentials and Expenditure Weights

Table I-3 shows how each of the district differentials are calculated. First, the personnel cost differential is multiplied by the personnel expenditure weight. In the case of the Klawock district, for example, 81% of the total budget was spent on personnel and the personnel differential was 1.01, or 1% above Anchorage levels. Then, the nonpersonnel differential is multiplied by the nonpersonnel expenditure weight. In the Klawock case the district spent 19% of their budget on nonpersonnel costs and the nonpersonnel differential was 1.35 or 35% higher than Anchorage costs. The products of these two calculations are added and the sum, 1.08, is the district differential.

A summary discussion of these results follows Table I-3, on the following page.

Table I-3

School District Personnel, Nonpersonnel and Total Differentials

(Anchorage District = 1.00)

District	Personnel Differentials	Pers Expenditure Weight	Non Personnel Differentials	Nonpers Expenditure Weight	Total District Differential	Recommended Differential
Southern Southeast						
Annette Island	1.01	.75	1.23	.25	1.07	1.08
Craig	1.01	.77	1.25	.23	1.06	1.08
Klawock	1.01	.81	1.35	.19	1.08	1.08
Hydaburg	1.01	.63	1.27	.37	1.11	1.08
Southeast Island	1.01	.71	1.36	.29	1.11	1.08
Urban Southeast						
Ketchikan	1.02	.81	1.00	.19	1.02	1.00
Wrangell	1.00	.86	1.08	.14	1.02	1.00
Petersburg	1.00	.79	1.05	.22	1.01	1.00
Sitka	1.02	.82	1.03	.18	1.02	1.00
Juneau	1.03	.86	0.98	.14	1.02	1.00
Central and Northern Southeast						
Kake	1.05	.67	1.30	.33	1.13	1.10
Chatham	1.07	.75	1.21	.25	1.10	1.10
Hoonah	1.03	.81	1.24	.19	1.07	1.10
Pelican*	1.03	NP	NP	NP	1.07	1.10
Other Southeast						
Haines	1.02	.78	1.07	.22	1.03	1.03
Skagway	1.03	.75	1.11	.25	1.05	1.05
Yakutat	1.21	.78	1.19	.22	1.20	1.20
Prince William Sound						
Cordova	1.18	.84	1.37	.16	1.21	1.20
Chugach	1.13	.69	1.36	.31	1.20	1.20
Valdez	1.06	.83	1.17	.17	1.08	1.06
Copper River	1.13	.72	1.12	.28	1.13	1.13
Anchorage Urban Influence Area						
Anchorage (Base District)	1.00	.88	1.00	.12	1.00	1.00
Matanuska-Susitna	1.00	.86	1.01	.14	1.00	1.00
Kenai Peninsula	1.01	.81	1.01	.19	1.01	1.00
Kodiak	1.06	.83	1.15	.17	1.08	1.08

Table I-3 continued

School District Personnel, Nonpersonnel and Total Differentials

(Anchorage District = 1.00)

District	Personnel Differential	Personnel Expenditure Weight	Non Personnel Differential	Nonpers Expenditure Weight	Total District Differential	Recommended Differential
Alaska Peninsula and Aleutian Islands						
Adak	1.32	.69	1.25	.31	1.30	1.29
Pribilofs	1.32	.61	1.38	.39	1.34	1.40
Aleutian (Region) East	1.32	.59	1.37	.41	1.34	1.33
Unalaska	1.30	.71	1.27	.29	1.29	1.29
Dillingham	1.30	.79	1.24	.21	1.29	1.29
Bristol Bay	1.35	.64	1.31	.36	1.33	1.33
Lake and Peninsula	1.35	.65	1.31	.35	1.34	1.33
Southwest	1.35	.71	1.27	.29	1.33	1.33
Yukon and Kuskokwim Delta						
Lower Kuskokwim	1.39	.71	1.43	.29	1.40	1.40
Yupiit*	1.39	NP	NP	NP	1.40	1.40
Kashunamiut	1.39	.70	1.31	.30	1.37	1.37
Lower Yukon	1.36	.68	1.35	.32	1.37	1.37
St. Mary's	1.38	.64	1.35	.36	1.37	1.37
Interior Remote						
Kuspuk	1.37	.68	1.23	.32	1.34	1.33
Iditarod	1.32	.69	1.22	.31	1.29	1.33
Galena	1.32	.74	1.33	.26	1.33	1.33
Yukon-Koyukuk	1.39	.63	1.18	.37	1.31	1.33
Yukon Flats	1.39	.63	1.32	.37	1.36	1.36
Tanana*	1.32	NP	NP	NP	1.33	1.33
Interior Road System						
Alaska Gateway	1.10	.68	1.14	.32	1.11	1.14
Delta/Greely	1.10	.83	1.14	.17	1.11	1.14
Nenana	1.14	.75	1.22	.25	1.16	1.14
Railbelt	1.14	.75	1.14	.25	1.14	1.14
Fairbanks	1.03	.84	1.01	.16	1.03	1.03
Arctic						
North Slope	1.53	.78	1.34	.22	1.49	1.49
Northwest Arctic	1.41	.71	1.49	.29	1.43	1.43
Nome	1.41	.77	1.18	.23	1.36	1.36
Bering Straits	1.34	.68	1.53	.32	1.40	1.40

* Not Provided. District did not return *School District Survey*.

Summary of Results (See Table I-3)

Personnel Differentials and Expenditure Weights
Personnel (household cost of living) differentials range from 1.00 to 1.53 but they also fall into four very distinct groups - Arctic, Aleutian and Interior remote, districts with convenient access to major regional centers, and urban districts.

The highest differentials are in the Arctic region topped by the 1.53 cost of living differential in the North Slope district. Two other northern districts - Northwest Arctic and Nome - shared the next highest cost of living of 1.41.

The largest group, the 20 Aleutian and Interior Remote districts had cost of living differentials ranging from 1.30 to 1.39, only nine points. This narrow range is the differential for districts which are truly remote from major regional centers but are not true arctic districts. These twenty districts stretch in a solid band from the tip of the Aleutian Chain through the Yukon River, Kuskokwim River and Bristol Bay drainage systems to the Alaska/Canada border in the Eastern Interior.

Districts with reasonable road or ferry access to regional centers of Ketchikan, Juneau, Anchorage or Fairbanks fall into a third group with differentials of 1.01 for some smaller Southeast districts to 1.10 and 1.14 for all the interior road system districts.

Fourth, urban districts with most of the state's population are grouped closely about the 1.00 base level and range only to 1.03. This group includes Anchorage, Fairbanks, Matanuska-Susitna, Kenai Peninsula, Juneau, Ketchikan and Sitka. Essentially, urban Alaskans experience about the same cost of living.

Nonpersonnel Differentials and Expenditure Weights
Nonpersonnel differentials had nearly the same range as personnel differentials - 0.98 to 1.53. However, their pattern among districts is different than the personnel differential. Rarely were the personnel and nonpersonnel differentials the same in any one district. This supports the original premise of this study which was that, in most districts, nonpersonnel costs are at different levels than personnel costs. Personnel and nonpersonnel costs differed by ten or more points in 17 districts and by at least five points in 31 districts.

District size, not living costs, was a major determinant of high nonpersonnel costs. Even in small districts of Southeast Alaska where household costs tend to be reasonable, nonpersonnel costs were high. In small communities with

small schools several nonpersonnel costs were significantly higher than in urban areas. Utilities rates, fuel prices, insurance, travel and professional/technical services are significantly more expensive in small communities than in urban areas.

Ten districts including all major urban districts had nonpersonnel differentials of less than 1.10. Another eleven had differentials between 1.10 and 1.19. These tended to be smaller urban areas and small districts with road access to Anchorage and Fairbanks. Twelve districts including most of rural Southeast had differentials in the 1.20's and a nearly equal number (14) scored in the 1.30's. Many in the 1.30's group were in that remote Aleutian and Interior region where household costs of living tended to be so uniform, also in the 1.30's. Final, only three districts scored nonpersonnel differentials above 1.40 - Lower Kuskokwim (1.43), Northwest Arctic (1.49) and Bering Straits (1.53).

Readers should keep in mind that in many districts serving smaller communities nonpersonnel differentials are modified by an adjustment factor for facilities costs (utilities and property insurance) to avoid double payment for low density student populations by both the foundation formula and the differential. Again, the differential is an adjustment for price differences while the foundation formula compensates for the inherent inefficiency of providing education to dispersed and lower density student populations.

Nonpersonnel expenditure weights are typically 12% to 20% in urban districts reflecting the lower prices of most nonpersonnel market basket items from insurance to travel to utility and fuel prices. Anchorage spends a smaller portion of its budget than any other district, 12%, on nonpersonnel costs. MatSu and Juneau spend 14% and Fairbanks, 16%.

At the other extreme are seventeen districts, all but one of them remote, which spend over 30% of their budget on nonpersonnel costs. The Aleutian Region and the Pribilof districts devote a larger portions of their budget to nonpersonnel costs than any other districts - 41% and 39%, respectively.

Analysis of District Statistics

The *Alaska School District Profiles and Differential Study* also includes information not related to differentials. Chapter IV of this study volume provides tables and written analysis of selected district fiscal, enrollment, personnel and facility data. Additional data and ratios (per ADM) for each district are also included in Volume II of this study, *District Profiles*. The appendix to Volume I includes a sample district profile from Volume II. Readers are referred to Chapter IV of Volume I and to Volume II for detailed

data and analysis of district statistics. Following is a brief summary of some of the data analyzed in Chapter IV.

Budget Analysis per ADM

School Operating Fund (01 fund) total, personnel and nonpersonnel budgets, State funding and other funding are all analyzed on a per ADM basis.

Total budgets per ADM (meaning per student, more or less) range from a low of less than $4,600 for the Anchorage base district which has the largest and most dense - and therefore the most efficient to serve - student population to a high of just under $19,500 for the North Slope district. Urban districts typically spend up to $6,000 per ADM while 20 small and remote districts spend over $10,000 per ADM.

North Slope expenditure and personnel levels are unique among districts and the following brief discussion explains some factors which contribute to this. The North Slope has the highest cost differential (1.49) and, like many other remote Northern and Western Alaska districts, it also provides education for a student population in several scattered funding communities. In addition, the North Slope has made an enormous local financial commitment to upgrading the education of their population. According to district officials, the percentile competency scores of grade school students have increased dramatically from a depressing 11th to the 32nd percentile in the past four school years. In terms of State foundation funding, the North Slope receives about $6,200, less than 25 other districts and about the same as Lower Yukon, Skagway and Kake. However, funding from other sources, primarily local, triples this amount.

Personnel expenditures vary from less than $5,000 for the major urban districts to $15,163 for the North Slope. Only three other districts spend as much as $10,000 per ADM on personnel.

Nonpersonnel spending per ADM is more widely scattered, ranging from just $568 for Anchorage and less than $1,000 for the other major urban districts to a peak of nearly $8,000 for the tiny Aleutian Region. The spread between the districts with the highest and lowest per ADM personnel costs was a factor of just under four ($4,000 vs. $15,000). But in nonpersonnel costs the spread is a factor of fourteen (from under $600 in Anchorage to $8,000). Nonpersonnel costs per ADM tended to be highest in the districts with very small communities.

State funding per ADM averages less than $3,500 in major urban areas and is typically $6,000 to $10,000 in many remote districts. The extremes are seven districts receiving over $10,000 with the Aleutian Region over $15,000 per ADM in State foundation funding.

Funding from other sources in major urban areas ranges from $1,300 (MatSu) to $2,200 (Fairbanks). The North Slope and Valdez are the leaders in the other funding category with $13,310 and $6,311, respectively, most of it from local sources. The districts with the least funding from other sources are the seven receiving less than $1,000. Most of them are districts serving smaller though not remote communities such as Skagway (lowest at $379), Nenana and Copper River.

Enrollment, Personnel and Facility Analysis per ADM

Personnel ratios per 100 ADM are analyzed as are the relationships between enrollment and instructional units.

District enrollments range from slightly more than 100 students in small single site districts to over 38,000 in Anchorage. But of more interest is the relationship between total enrollment (1st count ADM) and the number of instructional units granted each district by the school foundation formula. An instructional unit is the basic funding unit for public schools and is worth about $60,000 per unit.

This analysis of students per funding unit shows a low of 4.0 ADM per instructional unit in the tiny Chugach district to 12.4 in the Anchorage district. Urban areas typically have 11 to 12.4 students per instructional unit of funding while many small and multisite districts receive an instructional unit for every 5 to 8 students. This is simply another way to express the efficiency differences caused by dispersed and lower density student populations.

Another measure of what districts provide is the number of square feet of instructional building space per student. Anchorage is the most efficient district with only 134 square feet of instructional space per student. Other major urban districts typically provide 140 to 150 square feet. By contrast, ten districts provide over 300 square feet with a high of 414 per ADM in the North Slope. In general, remote districts use about twice the instructional space per student because low density and dispersion cause inefficient use of buildings compared to the compactness possible in large urban area schools.

Personnel per 100 ADM reveals the same results as other data. Generally, major urban districts, which devote over 80% of their budgets to personnel still provide just 9 to 10 total personnel per 100 ADM. They also employ about twice as many certified as classified personnel. Anchorage, for example, employs six certificated and three classified per 100 ADM.

In contrast, sixteen districts employ 18 or more personnel per 100 ADM with a high of 30 for the North Slope. These districts, of course, are remote ones serving mostly small communities. Further, districts with high personnel/student ratios tend to hire about as many classified as certificated

personnel. A few districts hire more classified than certificated. A typical remote REAA might employ 11 certificated and 10 classified personnel per 100 ADM compared to the typical urban ratios of 6 and 3, respectively.

Summary of Methodology

Personnel Differential Methods and Data

While the overall study collected data on salary levels and other personnel costs for the profile portion, the only data used for the personnel cost differential was the household cost of living in the 55 (53 in FY 1990) school districts. Again, the sole basis for the personnel differential is household cost of living, not average salaries paid and not salary schedules.

Virtually all household data was derived from the comprehensive data base of the 1985 *Alaska Geographic Differential Study* done by The McDowell Group for the State of Alaska Department of Administration, Division of Labor Relations. The study surveyed nearly 2,500 households in 91 communities and collected retail prices from 2,100 retail outlets in 54 communities. The results were combined into the 19 Alaska election districts which the State uses for their differential districts. The household cost of living market basket included 310 items in the seven major Consumer Price Index household expenditure categories of housing, food, transportation, clothing, recreation and entertainment, medical and miscellaneous.

To meet the needs of the school district study this data base was disaggregated and then reorganized into the 55 school districts. Then a differential was calculated for the household cost of living in each of those districts. Because the original study sample was designed for 19 rather than 55 districts, data for some small school districts was either not available or was not considered statistically sound due small sample sizes or other factors. To compensate for these cases several rules were developed which provide each district with data considered sound for differential purposes. A summary of these rules follows:

- When data was missing (for example, no retail price surveys were conducted in some districts) data from the closest most similar district was substituted. If data from the closest most similar district was not available, data from the larger original district in the 1985 study was used.

- When household and price data appeared outside the normal limits of the original study, data from the closest most similar district was substituted. For example, in the original study no more than 36% of any district's household budget was spent on food. If a district with a small household sample size showed a food expenditure weight well beyond 36%, then data from the

closest most similar school district or from the original 1985 district was substituted.

• In general readers should keep in mind the basic results of not only the 1985 study but past major studies conducted in 1972 and 1976. Two findings are of importance:

1. The most significant finding is that housing in most districts is less expensive than in Anchorage but that Anchorage's everyday retail prices are the state's most favorable. These tend to balance each other out in most urban areas but in rural areas the high everyday prices cause higher differentials.

Essentially, there are four groups of cost of living differentials - urban Alaska, small communities with easy and inexpensive access to regional centers by road or ferry, remote rural communities and true Arctic locations. The cost of living in urban Alaska is essentially the same from Ketchikan to Fairbanks, varying only from 1.00 to 1.03. Communities with easy access to regional centers fall into the 1.01 (small Southeast communities) to 1.14 (Railbelt, Copper River) range. Finally, the cost of living in remote areas from the Aleutians to the Alaska/Canada border in the Interior is remarkably similar with differentials of 1.30 to 1.40 covering all cases. Only true Arctic districts exceed 1.40.

2. The second significant finding is that differences in cost of living among Alaska locations change little over time. For example, the difference in cost of living between Bethel and Anchorage is about the same as it was nearly 20 years ago. Therefore, the use of a 1985 data base for 1988 differentials is appropriate, though the 1986-88 recession in urban Alaska has affected housing costs in the short run. However, some significant changes have occurred in some locations over the past 20 years and the cost of living data base should be updated every several years.

Nonpersonnel Differential Methods and Data

Thirty nonpersonnel expenditure items in eight major school district expenditure code categories are used to compute differentials in nonpersonnel costs. Data was collected through the *School District Survey*, a comprehensive survey of expenditure patterns completed by 51 of the 55 districts existing in FY 1988, and a School District *Vendors' Survey* of dozens of firms doing business with Alaska's school districts. Both surveys were conducted specifically for the nonpersonnel differential in this study. See Chapter III for detailed methodology and results of these surveys.

Following is a brief description of methods used to develop a nonpersonnel differential for school districts. See Chapter III for detailed nonpersonnel differential methodology and results.

Professional/Technical Services (Budget Code 400)
Legal, audit and inservice training were the professional/technical services market basket items.

Legal Services
Legal costs were based on the hourly rate charged by lead attorneys - usually about $135 - plus travel and per diem to the central office of each district for those districts which did not use local attorneys. If any district lead attorney rate was significantly higher or lower than the normal rate, it was assigned the $135 standard rate. Travel costs were added to the fees for a typical travel assignment of one work day. Interviews with legal firms revealed that about 30% of the their time was spent onsite and 70% in their own offices. Therefore, travel costs were added to only 30% of the legal fees.

The legal differential is the cost difference between performing all work in Anchorage and 30% of the work onsite.

Audit Costs
Interviews with the four firms which conduct most district audits revealed fairly standard fees depending on the size of the district budget. In addition, the audit firms specified the amount of total time which would be spent onsite (and therefore subject to travel and per diem costs). Actual audit costs paid by districts varied significantly and did not allow a basis for differential comparison. Instead, audit firm standards for districts for specified budget sizes were used.

The audit differential is the cost difference between performing a district's audit without travel and per diem and performing the audit with a portion of it being onsite. About 40-60% of the professional time for an audit is spent onsite.

Inservice Training
Inservice training policies and expenditures varied dramatically among districts. However, the district surveys revealed that $250 per day in fees and a three-day assignment were the most common parameters for contract inservice training professionals. Travel and per diem costs from a central out-of-state point to each district office was calculated.

The differential is the difference in total costs (fees, travel and per diem) between sending that professional to regional centers (Anchorage, Juneau and Fairbanks) and other districts.

Communications (410)
The communications market basket included long distance telephone, local telephone charges and postage (a combination of postage and parcel post shipping).

Long Distance Telephone

According to district surveys the three most commonly called locations were Anchorage, Juneau and Fairbanks. The study team calculate the total cost of calling these locations from each district. The standard was a ten-minute daytime weekday station call. This cost was compared to the cost of Anchorage placing two calls (one to Fairbanks, the other to Juneau) and the differential calculated. Out-of-district calls account for most of the long distance expense even for multisite districts. Therefore, all long distance expenditures are given the out-of-district differential.

Local Telephone Service

A standard business telephone system (three-line rotary roll-over) monthly charge was selected as the basis for cost comparison. School district systems do not follow any particular patterns so this system was priced in each of the districts and its cost compared to the Anchorage price.

Postage

Postage budgets were split into two parts for single site district and three for multisites. Normal postage and parcel post packages of less than two pounds, which cost the same everywhere, were assumes to be 60% of the budget and the other 40% was parcel post shipping for packages over two pounds. The cost of shipping parcels over two pounds varies depending on the distance shipped. These larger packages were assumed to be shipped to both Juneau and to parcel post zone 8 (outside Alaska) from each district.

The differential is the cost of normal postage plus larger package shipping in each district as compared to Anchorage.

Insurance (415)

Property insurance rates were quoted by the two companies which insure the majority of districts. Essentially, three rates prevail for Alaska school districts - urban, remote sites with good condition buildings and remote sites with poor condition buildings. The urban rate is much lower than the remote rates which are only about 10% apart. Districts were divided into the three groups based on the urban - remote criteria and the condition of remote district buildings was taken from the district survey of facilities which rated buildings on a four-point condition scale.

Then the rates were adjusted to avoid double compensation for facilities costs. The foundation formula already compensates for the inefficiency of small site districts by having a declining formula as the size of funding communities increases. Unless the unit prices of facilities-related costs are indexed the foundation formula plus the differential result in mathematically inflated funding levels for small districts.

The adjustment index is the number of square feet per student. The unit price of insurance is divided by this index to come out with the actual property insurance differential used in this study.

Liability insurance, though included in the expenditure weights of school districts, is given the base differential because rates are not sensitive to geographic location.

Travel (420)

Out-of-district travel and intradistrict travel (for multisite districts) are the two items in this market basket. Student activity travel and pupil transportation (school busses) are not included because they are not paid for out of 01 funds being studied in this report.

Out-of-District Travel

Virtually all districts traveled most commonly to Anchorage and Juneau. Travel costs assume trips to each location from each district's central office. The air fare is weighted by the frequency of travel to each location as reported on the district survey. Then three days per diem ($300) are assumed for the typical trip to either location.

The total of the weighted air fare and per diem is the amount credited to each district. The base district (and Juneau) are credited with one trip plus three days per diem since they have the advantage of not having to fly to one location. The differential is the difference between the two trips from each district and the one trip from the base district.

Intradistrict Travel

The cost of travel to the three most common intradistrict locations - as stated in the district survey - was calculated on a per round trip mile basis. This was compared to the cost per round trip mile within the base district. The difference is the intradistrict travel differential.

Utilities (430)

The utility market basket consisted of heating fuel, electricity and a combined other utilities category which included water, sewer and solid waste disposal.

Fuel

Districts were divided into five groups based on what they paid per gallon for heating fuel in FY 1988. Then an average per gallon price was calculated for each group. Each district within the group was assigned the group's average price. This was done to allow for yearly variations in fuel prices, to avoid penalizing districts which negotiated lower than normal prices and not reward districts which may have paid unnecessarily high prices. The base district price is then the average paid for heating fuel in Alaska's seven largest urban areas.

Next, the facilities index was applied to the per gallon price for each group, again to avoid double compensation for building inefficiency. That index is the square feet per student for each group of districts. Then this is compared to the same indexed price in the base district to calculate the differential.

Electricity

Electricity is calculated in a manner identical to the fuel differential. The same groupings were used and the price then divided by the index of square feet per student.

Other Utilities

Since unit costs are not available for water, sewer and waste disposal in most districts, a slightly different method was used. A cost per square foot for other utilities was calculated using data from the district survey. Then this cost was indexed by dividing it by the same factor as were fuel and electricity.

Other Purchased Services (440)

Equipment repair services for copiers, typewriters and computers are the market basket in this category. Hourly rates were identified from the district surveys and by surveying vendors. The most common rate was selected and applied to all districts. Rates vary little among districts as the real variable is travel costs.

Copier and typewriter repair services were assumed to be onsite and the differential for them is simply the difference between having and not having travel costs. Computer repair and maintenance were assumed to be at central locations so shipping costs were added from each district to a regional center.

Supplies, Materials and Media (450)

A market basket of twelve items for teaching supplies (3), janitorial supplies (4), office supplies (3) and textbooks (2) was created for this major expenditure category. Vendors for these items were often the same ones for most districts so districts were assigned the most common vendor. Then the items were priced and shipped from the vendor to each district via the most commonly used transportation mode.

The total costs were then compared to FOB Anchorage prices for the same items in the same quantities from the same vendors, the difference being the differential. This prevents comparisons of Anchorage district purchasing practices with those of small districts. In reality, the FOB Anchorage price from the vendors which supply most outlying districts are nearly the same as those secured from Anchorage vendors by the Anchorage district bid process.

Equipment (510)

This market basket consisted of the most commonly purchased model and brand of copier, projector, VCR and VCR camera. They were priced and shipped from the most common vendors for each item via the most common type of transportation used in each district. Freight and parcel post rates were researched and applied to each piece of equipment according to its shipping weight. The total cost was then compared to the same items FOB Anchorage from the same vendors.

II. Personnel Differentials

II. Personnel Differentials

Introduction

The basis for the personnel cost differential in each of the 53 Alaska public school districts is the household cost of living as compared to Anchorage, the base district. Actually 55 districts - the number in existence in FY 1988 - were studied, but results are reported for the 53 districts which will exist for the next budget cycle, FY 1990, when 3 districts merge into one. Virtually all of the data used to calculate each school district's household cost of living differential are derived from the comprehensive 1985 *Alaska Geographic Differential Study* by The McDowell Group for the State of Alaska Department of Administration, Division of Labor Relations.

The purpose of that study was to update the cost of living differentials (last studied in 1972 previous to the 1985 study) paid to state employees throughout Alaska and in Seattle. The study was done by using the results of two massive surveys to calculate the household cost of living in 19 Alaska districts and Seattle. One was a survey of household consumption patterns and expenditures in 2,478 households and the other a retail price survey covering 2,106 outlets. These 19 Alaska districts were the districts used by the State personnel system and are based on 1961 Alaska election district boundaries.

The method selected for computing the cost of living in each of the 53 school districts was to disaggregate the data for the original 19 districts into data for the 53 school districts. Then a differential was computed for each school district.

Use of the *Alaska Geographic Differential Study* data base for calculating the household cost of living in the 53 public school districts was studied extensively in the planning stages of the *Alaska School District Information Base and Differential Study* before a decision was made to proceed. Issues of concern were limited sample sizes in small districts, the appropriateness of using average household data for determining school personnel differentials, the computer programming difficulty of disaggregating a massive data base designed for 19 districts into 55 districts and potential aging problems of a three-year-old data base.

After studying these questions the McDowell Group then made the recommendation to the Legislative Budget and Audit Committee that the 1985 data base could be disaggregated. In cases where data was not available or sample sizes presented problems, a system of proxy values could be developed. Finally, the decision was made to use the 1985 data for the following reasons:

1. All districts had at least some household and/or price data available. The household consumption survey included 91 communities and the retail price survey was conducted in 54 communities.

2. The age of the data base presented minimal problems. Differences in cost of living between Anchorage and other areas of Alaska tend to change little over time. A review by the McDowell Group of 30 years of Alaska differential research revealed only moderate change over time in the relative difference in household cost of living among Alaska locations. Absolute price levels of individual items such as fuel or mortgage rates vary over time, but their relative differences among Alaska locations tend to be fairly stable. For example, it is about as much more expensive today as it was 20 years ago to live in Bethel compared to Anchorage.

One significant change over time is a lower Alaska cost of living when compared to Seattle. The gap is narrowing. Another more moderate change is the equalizing of living costs in most of urban Alaska. Today the cost of living for most of Alaska's population - Anchorage, Fairbanks, Juneau, MatSu, Kenai Peninsula, Ketchikan and Sitka - is essentially the same, varying no more than a couple of percentage points. This was shown in the 1985 study and has since been verified repeatedly by several other studies including those by the American Chamber of Commerce Research Association which includes several Alaska cities in its nationwide cost of living surveys.

3. Sample sizes for the household consumption survey are quite small in some of the 53 districts. From 38 to 300 households were surveyed in each of the 19 districts in the 1985 study. Sub samples for several school districts were less than 20. This affects the expenditure weights which represent how households spend their budgets, but does not affect the accuracy of the price data. The price data were not collected in a random sample. Instead, the outlets surveyed were the three to eight (depending on community size) where most people in each community did their shopping.

In cases where school district household expenditure weights varied significantly those of from their original 1985 parent district weights, the weights of the larger 1985 parent district household sample were used as proxies.

4. Using average household data to measure cost of living for school district personnel was suggested for several reasons. First, school personnel have a wide variety of consumption patterns and lifestyles. Therefore, the diversity of consumption patterns embodied in the community averages is considered fairly representative of the diversity of school personnel living patterns in most areas of Alaska. Further, averages for the whole community or district better reflects the cost of living than averages of a much smaller group, school district employees.

Also, in virtually all cases where school personnel clearly earn significantly more and choose to live and spend differently than the average household in the district, school personnel are subsidized in the most important category - housing. In many cases where housing is provided, school personnel pay less for housing than does the average family in the district.

Finally, from a practical standpoint, a survey of school personnel living patterns and costs in 53 districts would be a major research undertaking beyond the scope of this study.

Table II-1 is a summary of the results of disaggregating and reorganizing the 1985 data base into cost of living differentials for school districts.

Table II-1

District Personnel (Household Cost of Living) Differentials

(Anchorage costs = 1.00)

District	Personnel Differential
Southern Southeast	
Annette Island*	1.01
Craig	1.01
Klawock*	1.01
Hydaburg*	1.01
Southeast Island*	1.01
Urban Southeast	
Ketchikan	1.02
Wrangell**	1.00
Petersburg	1.00
Sitka	1.02
Juneau	1.03
Central and Northern Southeast	
Kake	1.05
Chatham	1.07
Hoonah	1.03
Pelican*	1.03
Other Southeast	
Haines	1.02
Skagway	1.03
Yakutat	1.21

Table II-1 continued

District Personnel (Household Cost of Living) Differentials

(Anchorage costs = 1.00)

District	Personnel Differential
Prince William Sound	
Cordova	1.18
Chugach*	1.13
Valdez	1.06
Copper River	1.13
Anchorage Urban Influence Area	
Anchorage (Base District)	1.00
Matanuska-Susitna**	1.00
Kenai Peninsula	1.01
Kodiak	1.06
Alaska Peninsula and Aleutian Island	
Adak*	1.32
Pribilofs*	1.32
Aleutian (Region) East*	1.32
Unalaska	1.30
Dillingham	1.30
Bristol Bay	1.35
Lake and Peninsula*	1.35
Southwest*	1.35
Yukon and Kuskokwim Delta	
Lower Kuskokwim	1.39
Yupiit*	1.39
Kashunamiut*	1.39
Lower Yukon	1.38
St. Mary's*	1.38
Interior Remote	
Kuspuk	1.37
Iditarod	1.32
Galena	1.32
Yukon-Koyukuk	1.39
Yukon Flats	1.39
Tanana*	1.32
Interior Road System	
Alaska Gateway*	1.10
Delta/Greely	1.10
Nenana	1.14
Railbelt*	1.14
Fairbanks	1.03
Arctic	
North Slope	1.53
Northwest Arctic	1.41
Nome	1.41
Bering Straits	1.34

Source: Derived from data base of *Alaska Geographic Differential Study*, 1985, by The McDowell Group for the Alaska Department of Administration, Division of Labor Relations.

*Personnel (Household cost of living) differential data not available in these districts. Differential from closest most similar district assigned.

**Personnel differentials adjusted to base level.