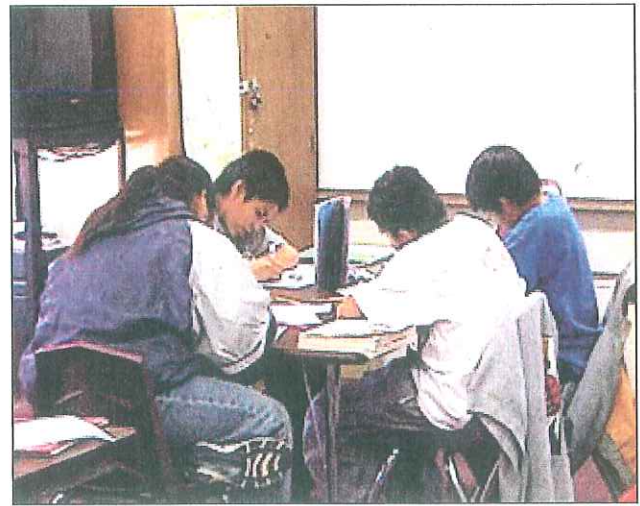
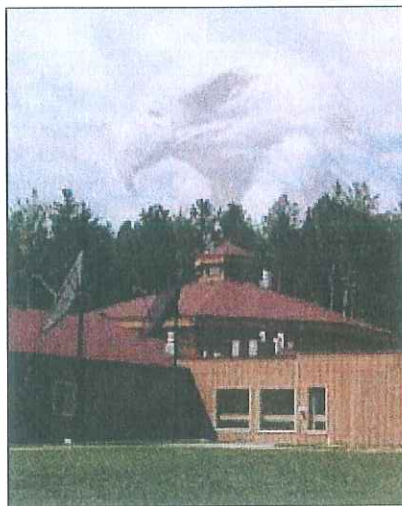
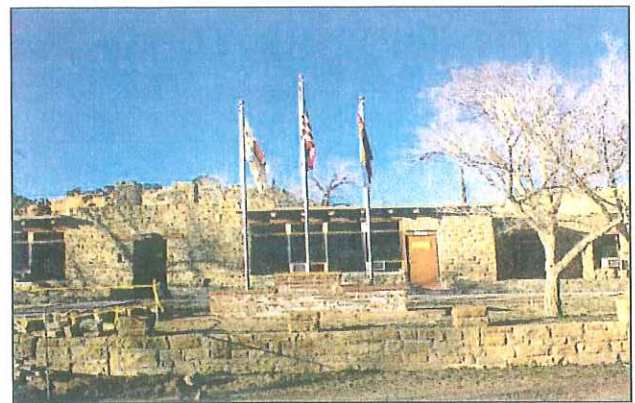


U.S. DEPARTMENT OF THE INTERIOR
OFFICE OF INSPECTOR GENERAL

AUDIT REPORT

BUREAU OF INDIAN AFFAIRS
SCHOOL CONSTRUCTION
PLANNING AND DESIGN
PROCESS



Photos Courtesy of BIA



United States Department of the Interior

OFFICE OF INSPECTOR GENERAL

Central Region

134 Union Blvd., Suite 510
Lakewood, Colorado 80228

September 29, 2003

Memorandum

To: Assistant Secretary – Indian Affairs

From: Anne L. Richards *Anne L. Richards*
Regional Audit Manager

Subject: Final Report, “Bureau of Indian Affairs School Construction Planning and Design Process” (No. 2003-I-0070)

This report presents the results of our audit of the Bureau of Indian Affairs (BIA) school construction planning and design process. The objective of our audit was to determine whether the BIA replacement school planning process is providing reasonably sized schools to the Indian communities it serves. We concluded that BIA’s student enrollment projection process generally produced inflated estimates, which resulted in schools being planned, designed, and constructed with excessive space. We made six recommendations which, if implemented, should result in more accurate student enrollment projections and therefore more appropriately sized schools.

In the August 21, 2003 response to the draft audit report, you concurred with all of the report’s recommendations. The response also stated that the BIA could not provide definite target dates for implementing the recommendations because the consultation and negotiated rulemaking processes and the implementation of the BIA reorganization were just beginning. Accordingly, we are requesting that BIA provide us with an action plan for implementing the recommendations. Please respond to this report by November 28, 2003.

The legislation, as amended, creating the Office of Inspector General requires that we report to Congress semiannually on all audit reports issued, actions taken to implement our audit recommendations, and recommendations that have not been implemented.

We appreciate the cooperation provided by the BIA staff during our audit. If you have any questions regarding this report, please call me at (303) 236-9243.

cc: Audit Liaison Officer, Bureau of Indian Affairs

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EXECUTIVE SUMMARY

RESULTS IN BRIEF

Replacement schools are planned, designed, and built with excessive space.

The objective of our audit was to evaluate whether BIA's planning and design process for replacement school construction was effective in providing reasonably sized schools to the Indian communities it serves. We determined that BIA was planning and designing schools with excessive space.

To forecast the size of the school facilities to be built, BIA applies its standard space guidelines to the projected future school enrollment. In simple terms, the space guidelines define the amount of square footage that should be planned on a per student basis, based on the highest grade at the school. The projected enrollment is a forecast of the number of students expected to attend the school once construction is complete.

Although BIA's space guidelines were suitable, we concluded BIA's student enrollment projection process generally produced inflated estimates. This occurred because BIA had not developed or implemented adequate policies and procedures on how to prepare, document, or review enrollment projections. Using inflated enrollment projections to determine school size resulted in building schools that are too large. We estimated that \$37 million has been spent to build excess space at schools between 1993 and 1999 and another \$74 million may be spent for excess space at schools currently being planned and designed.

BIA ACTIONS

BIA is taking actions to correct and strengthen its planning and design process. BIA has implemented interim guidelines for calculating enrollment projections for future replacement school construction and has agreed to determine whether these guidelines can be applied to projects currently in the design and planning phase. In addition, BIA agreed to clarify the enrollment projection process and develop, with tribal consultation, specific guidance on how to review and document student enrollment projections.

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INTRODUCTION

This report presents the results of our audit of the Bureau of Indian Affairs' (BIA) planning and design process for replacement school construction. Our objective was to evaluate whether BIA's replacement school construction program is providing reasonably sized schools to the Indian communities it serves. The two main variables in determining replacement school size are the projected future enrollment of the school and the space guidelines that determine the necessary square footage for that future student population.

We did not look at the project prioritization process that identifies the replacement schools to be built. The No Child Left Behind Act of 2001 (Public Law 107-110) requires that new processes be developed and implemented for the equitable distribution of replacement school construction funds. The Bureau of Indian Affairs (BIA) and the General Accounting Office each have responsibilities for development and implementation of these provisions of this Act. The new processes are not yet in place.

One additional issue is presented in this report. A discussion of the potential construction of redundant facilities at two high schools being funded by BIA in Belcourt, North Dakota, is included at the end of the report.

BACKGROUND

BIA funds the operation of 187 schools located in 23 states. These schools have a combined enrollment of approximately 48,000 Indian children and include the full range of grades from kindergarten to high school. BIA funds day schools, boarding schools, and dormitories for children attending public schools.

BIA has identified a long-standing backlog of schools requiring replacement. Many BIA schools were built in the 1940s and 1950s and suffer from the effects of age and use. In September 2002, BIA reported a backlog of deferred maintenance for educational facilities totaling approximately \$485 million. In December 2002, BIA reported a backlog of replacement school construction of over \$331 million.

In FY 2002, BIA received applications for replacement school construction from 70 BIA-funded schools with enrollments totaling over 20,000 students. The current administration has recognized the need and responded with increased funding for Indian Replacement School Construction. In FY 2003 six Indian schools are scheduled for replacement at a total cost of about \$125 million. The BIA FY 2004 budget request for Education Construction totals almost \$293 million and includes funding of over \$131 million to replace seven Indian schools.

In March 2000, the Deputy Director, Office of Indian Education Programs (OIEP) issued limited policy guidance on enrollment projections. In October 2002, based on information we provided BIA during the course of the audit, BIA issued interim guidance on preparing enrollment projections. We used the interim guidelines to evaluate enrollment projections for schools in the planning and design phase. An explanation of how we calculated enrollment and associated space is in Appendix 3. Detailed background information about BIA and OIEP is in Appendix 2.

For purposes of the audit we identified three stages of replacement school construction—planning, design, and construction. The planning phase covers the preparation of key documents such as the enrollment projection and the general architectural and engineering requirements. The design phase includes preparation of design documents beginning with schematic drawings and ending with the completion of construction building plans including the detail necessary to submit the project for bids. The construction phase includes all construction work from project site preparation through all work necessary to pass final inspections and obtain clearances to occupy the building.

RESULTS OF AUDIT

The process of forecasting student enrollment projections for replacement schools was not effective and generally produced inflated estimates. This resulted in construction and planned construction of oversized school facilities. In addition to the extra cost to build these overly large school facilities, there is an ongoing cost to operate and maintain this excess space. We estimate that the enrollment projections being used for schools currently in the planning and design phase would result in excess construction costs of \$74 million. Further, about \$1.44 million in recurring annual operations and maintenance costs would be required for as long as these school facilities are in use. Student enrollment projections were inflated because BIA did not implement adequate guidelines on how to prepare, document, review, or approve them.

We found BIA's space guidelines were reasonable for determining space and facilities needs. We compared BIA's guidelines to those used by selected states. We found BIA's guidelines were consistent with the state guidelines and application of the guidelines yielded similar results.

STUDENT ENROLLMENT PROJECTION PROCESS

BIA's student enrollment projection process results in inaccurate projections.

BIA's process to forecast future student enrollments was not adequate. We found that the assumptions and data used in enrollment projections were often unsupported and unverified. The methodologies used to forecast student enrollments lacked consistency between projects and concerns raised by BIA in the review process were not always answered or resolved. Additionally, in some cases there was no evidence of formal BIA approval of the projections used for construction planning.

There was no guidance for performing student enrollment projections prior to March 2000. At that time, the Deputy Director, Office of Indian Education Programs (OIEP), issued limited policy guidance on enrollment projections. The guidance identified a standard growth rate to estimate future enrollment until five years after planned construction was completed. But this guidance was generally not implemented and had little effect on the processes used for developing enrollment projections.

Even if this guidance had been implemented, it did not address how to prepare, document, or review student enrollment projections and did not require any analysis of assumptions

used, did not address the issue of including students not already enrolled, and failed to address a formal approval process. BIA generally accepted enrollment projections that lacked supporting documentation for data and assumptions both before and after the issuance of the March 2000 guidance.

Enrollment projections were prepared using unsupported assumptions and data.

Tribes and schools provided student enrollment projections using unsupported assumptions and data. BIA often accepted these projections without verifying the assumptions, methodologies used, or data. For example, because BIA did not verify assumptions used in the schools' enrollment projections, two schools were able to use the same circumstances to justify inflated enrollment projections. Two different kindergarten through grade 6 schools' enrollment projections included an increase in un-enrolled students because of new medical facilities, housing units, and a shopping center being built. The tribe stated that these new facilities would encourage additional families to relocate and enroll their children in the Indian schools. BIA allowed planning to proceed for both schools using the enrollment projections that, in effect, double counted the potential impact of the other new facilities. Although the total actual enrollment of the two schools was only 384, BIA approved enrollment projections for the two replacement schools totaling 750 students. Using guidelines that BIA issued in October 2002, we recalculated the enrollment projections for the two schools and determined that a reasonable total projection would have been 514 students. The cost of constructing space for an additional 236 students would be about \$11 million. We estimated the cost of constructing excess space by multiplying the cost per square foot for each school by the number of calculated excess square feet.

BIA sometimes accepted enrollment projections without examining the supporting data.

In another example, BIA approved an enrollment projection without examining the supporting data. BIA approved a forecast of 750 students for a kindergarten through grade 12 school, even though the actual enrollment during that current school year was only 216 students. The projection included 351 students extrapolated from the currently enrolled students using an unsupported methodology plus 401 additional students identified from the enrollments of public schools in the surrounding area.

To support the inclusion of the un-enrolled students, the tribe collected 162 affidavits signed and dated by the children's parents attesting to their tribal membership and the number and

ages of their children who would be attending the school when completed. Although BIA officials expressed doubts regarding children's willingness to transfer if they were already performing well in a public school, both OIEP and the Office of Facilities Maintenance and Construction (OFMC) approved the enrollment projection of 750 students. Neither organization examined supporting documentation for the affidavits or performed any independent verification of the data supplied by the tribe. At our request, the tribe provided information concerning a sample of 72 children included in the affidavits. Our analysis identified questions about the reliability of the data for 24 children (33 percent of our selected sample).

The tribe:

- Was unable to identify the names of 8 of the children or the birth-dates of 13 of the children.
- Could not verify the tribal enrollment of 5 of the children.
- Identified 10 of the children as enrolled by other tribes but did not verify that enrollment.
- Counted the same 3 children twice under different parents.
- Included children in the enrollment projection from less than 1 year in age through 17 years in age for a kindergarten through grade 12 school. This has the effect of inflating the enrollment projection because it counts both children too young to be in school currently and children who will have completed grade 12 by the time the replacement school construction is completed.

We estimate the enrollment projection was inflated by 437 students and the resulting excess school facilities would cost almost \$15 million.

Methodologies used to forecast future student populations were not consistent.

BIA did not ensure that all enrollment projections used the same methodology to forecast future student population. To predict future student population sizes, tribes and/or schools multiplied a growth factor (the March 2000 guidelines specified 2.5 percent) against a baseline enrollment figure.

Some schools projected future enrollment by applying the growth factor to all enrolled students; some applied it to only eligible enrolled students. Also, BIA allowed tribes and schools to apply widely varying growth rates. For the projects we reviewed, growth rates applied varied from 2.5 percent to around 8 percent. In addition to the inconsistent growth rates, BIA allowed several other growth adjustments to be included in the enrollment projections we reviewed.

BIA's review and approval process was not effective.

BIA did not have an effective review or approval process for student enrollment projections. Although we discovered that BIA officials often questioned inflated enrollment projections, the projections were still used for planning and budgeting purposes. They continued to use these projections even though the projections were never formally approved. A kindergarten through grade 9 school submitted an enrollment projection for 260 students when the actual enrollment was 125. BIA questioned the enrollment projection, which included 40 students for a pre-kindergarten program that was only approved for 18 students. However, the original projection was still used to determine the funding for the replacement school construction. There was no evidence that BIA obtained or reviewed any supporting documentation for the projection. Further, BIA could not provide any evidence of its formal approval or disapproval of the projection. We recalculated the enrollment projection using the October 2002 guidelines and added 34 students for the pre-kindergarten program and reintegration of grade 9. We estimate the appropriate enrollment projection for the school would have totaled 202 students. The cost of constructing space for an additional 58 students would be approximately \$3.6 million.

According to BIA officials, final projected student enrollment figures were generally derived through informal negotiations between BIA and the tribes. These negotiations and the decisions made in arriving at the final student enrollment projections were usually not documented. Additionally, it is unclear as to which organization within the BIA should be reviewing and approving enrollment projections for replacement school construction. Both the OIEP and the OFMC have responsibilities in this area. We have been unable to identify any assigned responsibility for reviewing and approving enrollment projections. Since the enrollment projection is a key element in determining where replacement school construction dollars are invested, the process should be clearly defined and not ambiguous. Outside observers should

be able to understand the logic used to create, evaluate, and approve the enrollment projections.

Using inflated enrollment projections to design replacement schools results in excess space and costs.

To determine the effect of using inflated enrollment projections we analyzed the projections and the actual student populations for replacement schools completed between 1993 and 1999. During the 2002 – 2003 school year, six of the seven schools had fewer students than had been projected. In fact, the actual enrollment at these schools was 53 percent lower than the enrollment projections¹. The cost of the excess space resulting from the inflated enrollment projections was approximately \$37 million². Had more accurate enrollment projections been used, the \$37 million might have been available to replace two additional small schools – for example, a kindergarten through grade 6 school for 390 students currently in the design phase is estimated to cost approximately \$15 million. The following chart summarizes our review of completed replacement school construction projects:

Summary of Replacement School Construction Projects Where Construction is Complete			
Total Number of Projects	Estimated Total Square Feet of Excess Capacity	Estimated Cost to Construct Excess Capacity (In Millions)	Estimated Annual Operations and Maintenance Costs for Excess Capacity (In Millions)
7 (see Appendix 3)	226,000	\$37	\$.91

BIA has agreed with our conclusion that the enrollment projections are inflated and stated that the current practice of

¹The student enrollment projections for these completed projects were not approved by BIA, but rather were approved by the DOI Office of Construction Management (OCM). OCM was discontinued on September 30, 1997 and BIA assumed responsibility for student enrollment projections.

²For completed projects we identified actual excess square footage by comparing enrollment projections to actual student counts from school year 2002-2003. We determined the cost of excess square footage by multiplying the cost per square foot for the specific school by the number of excess square feet. Exact steps used in the calculations are in Appendix 3. For projects in the planning and design phases we identified potential excess square footage by recalculating the enrollment projections using BIA’s October 2002 interim enrollment projection guidelines.

projecting enrollment five years beyond the construction completion date and the use of inflated or unrealistic annual rates of enrollment growth are, for the most part, responsible for the excess capacity. Our review also indicated that the inclusion of un-enrolled students in the enrollment projection resulted in excess capacity.

Using the October 2002 interim guidelines, we evaluated the enrollment projections for schools in the design and planning phases. For schools in the design phase we found that 9 of 10 schools would have excess capacity. The following chart summarizes our review of replacement school construction projects in the design phase:

Summary of Replacement School Construction Projects in Design Phase			
Total Number of Projects	Estimated Total Square Feet of Excess Capacity	Estimated Cost to Construct Excess Capacity (In Millions)	Estimated Annual Operations and Maintenance Costs for Excess Capacity (In Millions)
10 (see Appendix 4)	232,000	\$47	\$.93

We looked at the enrollment projections for all schools in the planning phase using the enrollment projections from data used for BIA budget justifications. While these projections were preliminary, they were generally the basis for funding requests and often were the basis for a project's final funding level. We computed enrollment projections using the October 2002 interim guidelines and found that the estimates were overstated and would result in excess capacity. The following chart summarizes our review of replacement school construction projects in the planning phase:

Summary of Replacement School Construction Projects in Planning Phase			
Total Number of Projects	Estimated Total Square Feet of Excess Capacity	Estimated Cost to Construct Excess Capacity (In Millions)	Estimated Annual Operations and Maintenance Costs for Excess Capacity (In Millions)
11 (see Appendix 5)	127,000	\$27	\$.51

We believe the October 2002 guidelines provide a reasonable starting point for projecting student enrollments. However, the new guidance still lacks procedures for review of supporting documentation, analysis of assumptions and for approving exceptions and did not address a formal approval process.

BIA ACTIONS

BIA is taking actions to adjust student enrollment projections where cost effective and to improve the student enrollment projection process.

Based on Notices of Tentative Findings and Recommendations issued by the Office of Inspector General (OIG) in September 2002, BIA issued interim guidance in October 2002. This guidance addressed how to account for un-enrolled students, and sets the growth rate for developing the enrollment projection at 2.5 percent annually, projected to the year of construction completion. BIA stated that the new guidelines would be applied to projects in the planning phase that did not have approved planning documents. Further, based on findings from the OIG, BIA agreed to look at enrollment projections for all projects in the planning and design phase and determine whether it is legally and economically feasible to apply the interim guidance to any of these schools. BIA has also agreed to assign responsibility for the formal approval of enrollment projections, develop a process to review and document enrollment projections, and establish procedures for processing exceptions to the guidelines.

Subsequent to the completion of our audit fieldwork, we had discussions with BIA officials and identified three additional issues to be clarified in the new enrollment projection guidance. First, BIA needs to clearly define what will constitute the planning date, which is used as the initial starting point from which enrollment projections are made. This date has a significant impact on the calculation of enrollment projections. Second, BIA needs to clearly define what

constitutes increasing, decreasing, and irregular student enrollment trends. The identified enrollment trend determines the enrollment count used as the baseline for the growth rate calculation. If the trend is increasing the most current student count is the starting point. If the trend is decreasing or irregular the average student count over the most recent five-year period is used. Lastly, BIA needs to clearly define how to estimate the construction completion year. This date is used as the ending point for the growth calculation within the enrollment projection process. BIA is working to identify the needed definitions.

RECOMMENDATIONS

We recommend that the Assistant Secretary for Indian Affairs:

1. Where legally and economically feasible, recalculate the existing enrollment projections for all schools in the planning and design phase using the October 2002 interim guidelines and incorporate the results into project designs.
2. Assign responsibility to OIEP or OFMC or another appropriate office for the formal approval of all enrollment projections.
3. Implement procedures requiring BIA personnel to obtain and verify the data and methodology that is used in enrollment projection calculations and to document the results of the review.
4. Require justification, verified supporting documentation, and approval by the appropriate official for any exception to the enrollment projection guidelines.
5. Clarify the definitions for the planning date and the construction completion date to be used in calculating enrollment projections.
6. Clarify the definition of the types of enrollment trends used for setting the baseline for the growth calculation for future enrollment.

**BIA RESPONSE AND
OIG REPLY**

In the August 21, 2003 response (Appendix 8) to the draft report, the Acting Assistant Secretary – Indian Affairs concurred with all of the report’s recommendations.

BIA stated that it could not provide definite target implementation dates at this time because the consultation and negotiated rulemaking processes and the implementation of the BIA reorganization are just beginning. Based on the BIA response, we have requested additional information on actions which will be taken to implement Recommendations 1, 2, 3, 4, 5, and 6 as detailed in Appendix 9.

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ADDITIONAL ISSUE

During the course of our audit, an additional issue came to our attention that we communicated to the management of BIA for corrective action.

Redundant High School Facilities Planned at the Ojibwa Indian School

On September 9, 2002 OIG issued a Notice of Tentative Finding and Recommendation addressing the BIA approval of replacement construction for both the Ojibwa Indian School and the Turtle Mountain High School in Belcourt, North Dakota. The new Ojibwa Indian School will be expanded to include high school grades. When completed the two new high schools will be approximately four miles apart and will serve a student population currently served by the Turtle Mountain High School and other public schools in the area. The approval to replace the Ojibwa Indian kindergarten through grade 8 school with a facility including grades kindergarten through grade 12 will likely result in the construction of redundant high school facilities.

BIA's current justification for building high school facilities at the Ojibwa Indian School is to reduce overcrowding at the Turtle Mountain High School whose construction is estimated to be two years behind that of the Ojibwa Indian School. Although we recognize the need to resolve the overcrowding issue as soon as possible, we question the need for a second set of permanent high school facilities.

We suggest BIA reconsider the plan to construct two sets of full high school facilities within a four-mile radius.

CLASSIFICATION OF MONETARY AMOUNTS

Finding Area	Funds To Be Put to Better Use (In Millions of Dollars)
Projects in the Design Phase:	
❖ Estimated cost of excess square feet	\$47.24
❖ Estimated additional annual operations and maintenance costs.	.93
Projects in the Planning Phase:	
❖ Estimated cost of excess square feet.	27.24
❖ Estimated additional annual operations and maintenance costs.	.51
Total cost of excess square feet.	74.48
Total additional annual operations and maintenance costs	1.44

BUREAU OF INDIAN AFFAIRS ORGANIZATION, RESPONSIBILITIES, AND RESOURCES

For the period covered by our audit, the Bureau of Indian Affairs had two service components reporting to the Assistant Secretary for Indian Affairs: the Office of Indian Programs (OIP) managed by the Deputy Commissioner, Indian Affairs and the Office of Indian Education Programs managed by the Director, Office of Indian Education Programs (OIEP).

The Deputy Commissioner is responsible for all areas of operations except for education programs. These operations include regional, agency, and various other field offices including the Office of Facilities Management and Construction (OFMC). OFMC is located in Albuquerque and is responsible for new construction, primarily of replacement schools, and the renovation and maintenance of BIA-funded facilities. In FY 2002 OFMC received about \$293 million for education construction, which included about \$128 million for replacement school construction. BIA-funded educational facilities include over 2,100 buildings.

OIEP is headed by a Director who is responsible for the support of 187 schools with an enrollment of about 48,000 students. These 187 schools include 119 day schools, 54 boarding schools, and 14 dormitories that house Indian children who attend public schools. BIA's schools are operated by either BIA or tribal organizations pursuant to grants or contracts from BIA. During the 2001—2002 school year, BIA operated 68 schools and 1 dormitory and tribes or tribal organizations operated the remaining 105 schools and 13 dormitories through grants and contracts with BIA. The Tribally Controlled Schools Act of 1988 (Public Law 100-297) authorizes the award of grants to tribally controlled schools and the Indian Self Determination Act (Public Law 93-638) authorizes the award of contracts to tribes and tribal organizations for the operation of DOI programs for Indians. In FY 2002 OIEP received about \$720 million including \$559 million in BIA appropriated funds to support the operations of its schools.

ANALYSIS OF PROJECTS COMPLETED DURING 1993 THROUGH 1999
COMPARISON OF ENROLLMENT PROJECTIONS AND CURRENT ENROLLMENTS

1	2	3	4	5	6	7	8	9	10	11	12	13
School Name	Project Completion Date	Enrollment Projection	School Year 2002-2003 Enrollment	Excess Student Capacity	Excess Capacity Percentage	Estimated Project Square Feet	Estimated Total Cost (Thousands)	Cost Per Square Foot	Square Feet Per Student	Excess Square Feet	Estimated Cost of Excess Square Feet (Thousands)	Estimated Additional O&M Cost \$4 Per Square Foot ¹ (Thousands)
Tucker Day School	Aug-94	310	100	210	67.74	49,766	\$6,883	\$138	161	33,810	\$4,666	\$135
Standing Pine Day	Oct-95	189	76	113	59.79	40,024	7,267	\$182	212	23,956	4,360	96
Shoshone Bannock	Oct-96	310	136	174	56.13	55,646	11,926	\$214	180	31,320	6,702	125
Chief Leschi School	Nov-96	1,057	497	560	52.98	181,346	26,983	\$149	172	96,320	14,351	385
Pinon Community	Jun-96	425	290	135	31.76	117,810	19,732	\$167	277	37,395	6,245	150
Tiospaye Topa School ²	Nov-97	238	221	17	7.14	51,482	10,478	\$204	216	3,672	749	15
Rock Point Community	May-95	285	427	0	0.00	60,790	11,012	\$181	213	0	0	0
				<u>1,209</u>		<u>556,864</u>	<u>\$94,281</u>			<u>226,473</u>	<u>\$37,073</u>	<u>\$906</u>
				Column 3 - 4		Column 8 ÷ 7	Column 8 ÷ 7	Column 7 ÷ 3	Column 5 × 10	Column 9 × 11	Column 11 × \$4	

¹Operations and Maintenance Cost Comparison Study conducted in FY 1999 by Applied Mechanical Engineering for the Office of Facilities Management and Construction. BIA requested \$5.97 per square foot and received \$4.01 per square foot.

²Formally Eastern Cheyenne River.

ANALYSIS OF PROJECTS IN THE DESIGN PHASE
COMPARISON OF ACTUAL ENROLLMENT PROJECTIONS AND PROJECTIONS BASED ON OCTOBER 2002 GUIDELINES

1	2	3	4	5	6	7	8	9	10	11	12	13
School Name	Estimated Project Start Date	Enrollment Projection	Enrollment Based on October 2002 Guidelines	Excess Student Capacity	Excess Capacity Percentage	Estimated Project Square Feet	Estimated Total Cost (Thousands)	Cost Per Square Foot	Square Feet Per Student	Excess Square Feet	Estimated Cost of Excess Square Feet (Thousands)	Estimated Additional O&M Cost \$4 Per Square Foot ¹ (Thousands)
Lummi Tribal	Mar-03	750	313	437	139.62	126,972	\$25,560	\$201	169	73,853	\$14,844	\$295
Polacca Day	Feb-03	400	224	176	78.57	74,300	17,460	\$235	186	32,736	7,693	131
Pascal Sherman	Jul-03	260	202	58	28.71	75,824	16,150	\$213	292	16,936	3,607	68
Ojibwa Indian ²	Feb-03	750	550	200	36.36	126,000	22,800	\$181	168	33,600	6,082	134
Second Mesa Day	Mar-03	350	290	60	20.69	70,312	19,770	\$281	201	12,060	3,389	48
Santa Fe Indian ³	Nov-02	700	591	109	18.44	145,412	25,089	\$173	208	22,672	3,922	91
Wingate Elementary	Dec-02	845	769	76	9.88	160,409	23,077	\$144	190	14,440	2,079	58
Tuba City Boarding	Mar-03	1,400	1,245	155	12.45	174,860	40,412	\$231	125	19,375	4,476	78
Baca/Thoreau	Sep-02	390	360	30	8.33	78,551	14,969	\$191	201	6,030	1,152	24
Tiopsa Zina Tribal	Nov-02	532	563	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
				<u>1,301</u>		<u>1,032,640</u>	<u>\$205,287</u>			<u>231,702</u>	<u>\$47,244</u>	<u>\$927</u>
				Column 3-4		Column 8-7		Column 5 x 10	Column 7 ÷ 3	Column 9 x 11	Column 11 x \$4	

¹Operations and Maintenance Cost Comparison Study conducted in FY 1999 by Applied Mechanical Engineering for the Office of Facilities Management and Construction. BIA requested \$5.97 per square foot and received \$4.01 per square foot.

²The Bureau changed the enrollment projection from 750 students to 550 students and lowered the cost to \$22.8 million.

³Santa Fe Indian Cost is based on education facilities only, total project cost is \$49,000,000.

ANALYSIS OF PROJECTS IN THE PLANNING PHASE
COMPARISON OF ACTUAL ENROLLMENT PROJECTIONS AND PROJECTIONS BASED ON OCTOBER 2002 GUIDELINES

1	2	3	4	5	6	7	8	9	10	11	12	13
School Name	Estimated Project Completion Date	Enrollment Projection	Enrollment Based on October 2002 Guidelines	Excess Student Capacity Based on October 2002 Guidance	Excess Capacity Percentage	Estimated Project Square Feet	Estimated Total Cost (Thousands)	Cost Per Square Foot	Square Feet Per Student	Excess Square Feet	Estimated Cost of Excess Square Feet (Thousands)	Estimated Additional O&M Cost \$4 Per Square Foot ¹ (Thousands)
Enemy Swim	Sep-05	164	111	53	47.75	34,400	\$8,011	\$233	210	11,130	\$2,593	\$45
Kayenta	Nov-04	748	546	202	37.00	112,335	25,526	\$227	150	30,300	6,878	121
Turtle Mountain H.S.	Sep-05	800	607	193	31.80	131,200	36,370	\$277	164	31,652	8,768	127
Navajo Prep.	Sep-05	300	228	72	31.58	71,814	12,805	\$178	239	17,208	3,063	69
Isleta Elementary	Aug-05	333	281	52	18.51	59,560	11,715	\$197	179	9,308	1,834	37
Wide Ruins	Jun-04	273	234	39	16.67	52,962	10,187	\$192	194	7,566	1,453	30
St. Francis	Oct-02	784	693	91	13.13	131,712	14,100	\$107	168	15,288	1,636	61
Low Mountain	Mar-05	313	286	27	9.44	55,290	11,699	\$212	177	4,779	1,013	19
Mescalero ²	Sep-04	608	608	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Wingate High School	Sep-05	800	808	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Bread Springs	Sep-05	153	152	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
				<u>729</u>		<u>649,273</u>	<u>\$130,413</u>			<u>127,231</u>	<u>\$27,238</u>	<u>\$509</u>
				Column 3 - 4		Column 8 ÷ 7	Column 7 ÷ 3	Column 5 × 10	Column 9 × 11	Column 11 × \$4		

¹Operations and Maintenance Cost Comparison Study conducted in FY 1999 by Applied Mechanical Engineering for the Office of Facilities Management and Construction. BIA requested \$5.97 per square foot and received \$4.01 per square foot.

² The Mescalero School was built by the tribe for 1,600 students, the BIA Office of Facilities Management and Construction disagreed with the tribe's enrollment projection and concluded that the school should have been built for 608 students.

SCOPE AND METHODOLOGY

The audit was conducted at the Office of Indian Education Programs (OIEP) and the Office of Facilities Management and Construction (OFMC) and included interviews with BIA management, project managers, and education line officers. We also contacted selected states, architectural and engineering (A&E) firms, and tribes for additional information pertaining to enrollment projections. We looked at other methodologies for enrollment projections and did some comparative analyses. We reviewed documentation available at OFMC pertaining to project planning, costs, facilities, and square footage. In addition, we reviewed all available documentation related to enrollment projections at OFMC and we interviewed all associated OFMC project managers. We did not perform site visits because we accepted BIA's determination concerning the need for replacement school construction.

To evaluate enrollment projections we reviewed 28 replacement school construction projects. This included all 7 projects completed between January 1993 and December 1999 and all 11 projects in the planning phase and all 10 projects in the design phase at the time of our review. The amount of project documentation available and reviewed varied greatly depending on whether the project was completed or in the planning or design phase.

The following project information and procedures were used to calculate inflated student enrollment and quantify its cost:

- For completed projects we evaluated information including the approved student enrollment projection and project data on actual student enrollment, cost, and square footage. We calculated the excess student capacity by determining the difference between the student enrollment projection and the actual student enrollment for school year 2002—2003.
- For projects in the planning phase we relied mainly on budget documents including BIA's submission of the Office of Management and Budget (OMB) Exhibit 300 form, "Capital Asset Plan" and budget justifications to gather project information related to enrollment projections and estimated project cost and square footage. We computed enrollment projections using the October 2002 guidelines and calculated the difference between this figure and the student enrollment projection being used in the project design.
- Projects in the design phase had varying degrees of documentation supporting enrollment projections. The level of documentation depended on what the individual project manager required and what documentation the tribe or its A&E firm was required to provide. Design project documentation reviewed included education specifications, programs of requirements, budget justifications,

approval letters, and available support for enrollment projections. As with projects in the planning phase, we computed enrollment projections using the October 2002 guidelines and calculated the difference between this calculation and the student enrollment projection being used in the project design.

Concerning space guidelines we looked at the procedures utilized by the states of North Dakota, Minnesota, Washington, and Arizona to evaluate the reasonableness of guidelines used by BIA.

We performed our audit work from April 2002 to March 2003. We conducted our audit in accordance with the *Government Auditing Standards* issued by the Comptroller General of the United States. Accordingly, we included such tests of records and other auditing procedures that are considered necessary under the circumstances.

PRIOR AUDIT COVERAGE

The General Accounting Office (GAO) issued one report and the Office of Inspector General (OIG) issued two reports in the past five years that directly relate to issues of Indian school construction as follows:

- In September 2001, GAO issued the report titled *BIA AND DOD SCHOOLS, Student Achievement and Other Characteristics often Differ from Public Schools*. The key issues in the report related to school construction were:
 - BIA school buildings, features, and workspaces were reported to be less than adequate to a greater extent than Department of Defense and public schools.
 - BIA reports needing more than \$960 million to address educational facilities deficiencies.
 - BIA funding for maintenance and repair is less than national guidelines.
 - Estimated expenditures per pupil for BIA schools are higher than public schools and vary substantially between categories of schools. However, a higher proportion of BIA students have special needs and BIA schools support a broader infrastructure than most public schools.

GAO made no recommendations in the report.

- In March 2001, the OIG issued the report titled *Construction Costs for Chief Leschi School Puyallup Tribe, Puyallup, Washington, Bureau of Indian Affairs*. The key issues in the report related to school construction were that the Office of Facilities Management and Construction (OFMC) did not:
 - Sufficiently monitor construction planning to identify variances between the Program of Requirements (POR) prepared for the school and the construction design specifications.
 - Remove the old Chief Leschi School buildings from the database used to track buildings eligible to receive BIA operation and maintenance funds.

The report made two recommendations: The OIG recommended that appropriate BIA officials (1) Monitor construction planning to ensure that the design specifications of schools comply with the POR, (2) Make a final determination on the allowability of the \$785,310 erroneously paid for operations and maintenance for FYs 1997 through 2000 and recover the amounts determined to be unallowable. BIA concurred with both recommendations.

- In March 1999, the OIG issued the report titled *Bureau of Indian Affairs Funds Provided to the Lac Courte Oreilles Ojibwe School for the Construction of School Facilities and Leasing of Temporary Space*. Although the school students were housed in safe and secure facilities, the key issues in the report related to school construction were:
 - School officials did not comply with the intended purpose of the grants to construct a facility to replace unsafe portable classrooms or to lease temporary school space to house displaced students.
 - That the Bureau had not adequately monitored the use of the grant funds to ensure that the funds were used only for design and construction of a 17,359 square foot facility and for leasing temporary space.

The final report contained four recommendations. BIA generally agreed with the findings and the intent of the recommendations, but did not express concurrence or non-concurrence with the report. The findings were considered unresolved when the final report was issued.



United States Department of the Interior

OFFICE OF THE SECRETARY
Washington, D.C. 20240

AUG 21 2003

Memorandum

To: Assistant Inspector General for Audits
Office of Inspector General

From: *Acting* Assistant Secretary – Indian Affairs *Aurene H. Martin*

Subject: Draft Audit Report on Bureau of Indian Affairs' Replacement School Construction Program (C-IN-BIA-0023-2002).

We have reviewed the subject draft audit report dated May 30, 2003. The objective of the audit was to determine whether the Bureau of Indian Affairs (BIA) replacement school construction program is providing reasonably sized schools to the Indian communities it services. The draft audit report concluded that the BIA's student enrollment projection process generally produced inflated estimates that resulted in schools being planned, designed, and constructed with excess space. Our responses to the recommendations are as follows:

Recommendation 1. Where legally and economically feasible, recalculate the existing enrollment projections for all schools in the planning and design phase using the October 2002 guidelines and incorporate the results into project designs.

BIA Response. We concur with the recommendation. The 2002 guidelines were issued as an interim policy memorandum by the Assistant Secretary – Indian Affairs on October 11, 2002. The 2002 guidelines addressed the issue of student enrollment projections and the maximum allowable square footage for replacement schools, but were limited in scope to projects that were in the planning phase. Further consideration has already been given to what should be the final or revised interim policy of the BIA in determining student enrollment projections. Some modifications to the existing interim guidelines are already being discussed. Until a final policy decision is made and procedures can be developed incorporating the elements identified in Recommendations 2 through 6 of the draft audit report, the BIA is operating under an interim policy that can be limited in effect. However, the BIA is aware of its responsibility to calculate accurate student enrollment projections.

The BIA will review with the Office of the Solicitor each project identified in Appendix 4 (Analysis of Projects in the Design Phase) and Appendix 5 (Analysis of Projects in the

Planning Phase) and make a determination on a case-by-case basis whether to apply the interim policy for calculating enrollment projections. Since some of the projects are being accomplished through grants awarded under the Tribally Controlled Schools Act, as amended, or contracts/compacts awarded under the Indian Self-Determination and Education Assistance Act, as amended, BIA may be limited in its ability to take action. For some of the projects, the Office of Facilities Management and Construction (OFMC) is using the "Design/Build" practice where construction can begin before the project is fully designed. Consequently, some of the projects listed as in the design phase may have already begun construction activities.

The Director, OFMC, will have the lead in implementing this recommendation. However, the Director, Office of Indian Education Programs (OIEP), as well as other OIEP personnel will be involved in the process in consultation with staff from the Office of the Solicitor.

Recommendation 2. Assign responsibility to OIEP or OFMC or another appropriate office for the formal approval of all enrollment projections.

BIA Response. We concur with the recommendation. As part of the current reorganization, the facilities function will become part of a management support services office reporting to the Deputy Assistant Secretary – Indian Affairs (Management) and independent of the BIA and the OIEP. In implementing the reorganization, the Office of the Assistant Secretary – Indian Affairs will pay particular attention to assigning the responsibility for formally approving enrollment projections. The October 11, 2002, policy did not assign the responsibility for approving the projections.

The Assistant Secretary – Indian Affairs will be responsible for assigning the responsibility. Regardless of who is assigned the responsibility, the procedures to be implemented under Recommendation 3 will govern the process of arriving at school enrollment projections.

Recommendation 3. Implement procedures requiring BIA personnel to obtain and verify the data and methodology that is used in enrollment projection calculations and to document the results of the review.

Recommendation 4. Require justification, verified supporting documentation, and approval by the appropriate official for any exception to the enrollment projection guidelines.

Recommendation 5. Clarify the definitions for the planning date and the construction completion date to be used in calculating enrollment projections.

Recommendation 6. Clarify the definition of the types of enrollment trends used for setting the baseline for the growth calculation for future enrollment.

BIA Response. We concur with Recommendations 3 through 6. As we have previously indicated, we believed that the October 2002 interim policy on enrollment projections was a beginning. However, we recognized the fact that further clarification of the process and the documentation requirements were needed. Certain terms will need to be defined and methodology developed for determining enrollment trends. The requirement to document the basis for all approved enrollment projections as well as for justifying and providing verified documentation to support exceptions will be included in the procedures. As discussed with the auditors subsequent to the issuance of the notice of proposed finding, BIA has restated the "estimated project start dates" and estimated project completion dates" for twelve of the projects listed in Appendices 4 and 5 of the draft audit report.

The Native American Education Improvement Act of 2001 directed the Secretary to establish, by regulation, separate geographical attendance areas for each Bureau-funded school. The establishment of attendance boundaries will ultimately have an impact on the process of determining school enrollment projections and will also be considered in developing procedures as part of the rule making requirements of the "No Child Left Behind" legislation (P.L. 107-110).

Although the Director, OFMC, will have the lead, OIEP personnel will have substantial involvement in the development of the process and implementation will be with the concurrence of the Director, OIEP. Any development and implementation of permanent procedures will have to meet education programs requirements for tribal consultation.

The BIA is unable to provide definite target dates for implementing the recommendations at this time because the consultation and negotiated rule making processes and the implementation of the BIA reorganization are in their initial phases.

If you have any questions or require additional information, please contact Dr. Kenneth Ross, Acting Director, Office of Facilities Management and Construction, or Mr. Boyd Robinson, Chief, Division of Program Planning, at (505) 346-6522.

STATUS OF RECOMMENDATIONS

Finding/Recommendation Reference	Status	Action Requested
1, 2, 3, 4, 5, and 6	Management concurs; additional information requested.	Please provide an action plan for implementing the recommendations. In addition, please keep us informed of the progress on the review of enrollment projections for schools currently in the planning and design phases as well as the implementation of policies and procedures to comply with recommendations 2, 3, 4, 5, and 6.

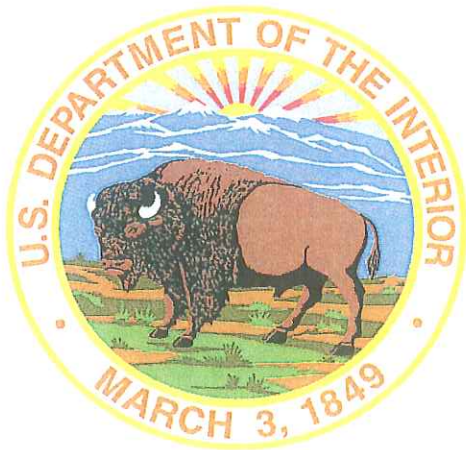
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