

PERFORMANCE AUDIT REPORT

NDUS Space Utilization Study

Report No. 3038

January 3, 2017

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January 3, 2017

The Honorable Doug Burgum, Governor

Members of the North Dakota Legislative Assembly

Members of the State Board of Higher Education

Dr. Mark Hagerott, NDUS Chancellor

We are pleased to submit this performance audit report on the North Dakota University System Space Utilization Study. The report contains our conclusions related to the Space Utilization Study. Also, we provide information related to specific areas included in the motion passed by the Legislative Audit and Fiscal Review Committee.

We conducted this audit under the authority granted within North Dakota Century Code Chapter 54-10. Included in the report are the scope and methodology, conclusions, and management response.

Sincerely,

A handwritten signature in black ink, appearing to read "Joshua C. Gallion", written over a circular stamp or seal.

Joshua C. Gallion
State Auditor



OFFICE OF THE STATE AUDITOR

Performance Audit – Space Utilization Study Report Highlights

Purpose

To conduct a performance audit of the Space Utilization Study completed for the State Board of Higher Education during the 2013-15 biennium.

Audit Conclusion

We determined a Space Utilization Study was not completed during the 2013-15 biennium. While a consultant attempted to complete a classroom and teaching laboratory utilization study, the report issued in March 2015 was not complete, lacked necessary information, and included inconsistent information.

Background

In July 2012, the newly hired Chancellor requested \$1 million be added to the NDUS's 2013-15 budget request. The funds were to be used to engage an external consultant to complete a system-wide analysis of space utilization and development of a system-wide facility master plan. The NDUS was appropriated \$1 million in the 2013-15 biennium for a master plan and space utilization study.

Prior to the effective date of the \$1 million appropriation, an Interim Chancellor was appointed. The change in leadership appeared to create confusion regarding the intended scope of the master plan and space utilization study.

Summary Information

- The initial contract amount was \$975,000 for the master plan and space utilization study. The majority was allocated for deferred maintenance and other master planning elements. A facilities data and analysis contract element (allocated \$125,000) included classroom and laboratory utilization analysis.
- A report issued by the consultant in June 2014 stated a space utilization study should be conducted to determine the appropriate amounts of classroom, laboratory, and office space at each campus.
- The consultant informed a legislative committee there was not sufficient information available to review classroom utilization levels for the June 2014 report.
- An attempt to complete a space utilization study by the end of the 2015 Legislative Session appeared to be rushed. Additional funds from the 11 campuses were used in an attempt to complete the space utilization study.
- A report issued by the consultant in March 2015 stated a lack of classroom and teaching laboratory seat count information provided an incomplete utilization picture. The consultant recommended significant additional work take place during 2015 to obtain and record additional important data to better reflect the utilization of instructional facilities.
- The March 2015 report does not define certain terminology and does not identify what rooms have been excluded. The data in the report was based on self-reported information initiated at the campus level.
- We conclude a completed space utilization study has not been conducted by an independent, third party.
- For the 2013-15 biennium, the NDUS was appropriated \$10 million for a deferred maintenance funding pool. Session Law allowed the SBHE to distribute up to \$5 million prior to the completion of the master plan and space utilization study. We conclude \$10 million was distributed prior to completion of a space utilization study.

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Abbreviations

Full-Time Equivalent	FTE
North Dakota University System	NDUS
State Board of Higher Education	SBHE

Space Utilization Study

Introduction

The Legislative Audit and Fiscal Review Committee passed a motion for the Office of the State Auditor to conduct a performance audit of the space utilization study completed for the State Board of Higher Education (SBHE) during the 2013-15 biennium. The audit was to include a review of:

- The involvement of board members, board office staff, and campus personnel in the study.
- The comprehensiveness of the study.
- The contractor's compliance with the terms of the contract.
- The SBHE actions as a result of the study.

Upon completion of the planning phase of the audit, we concluded a space utilization study was not completed during the 2013-15 biennium. While a consultant attempted to complete a classroom and teaching laboratory utilization study, the report issued in March 2015 was not complete, lacked necessary information, and included inconsistent information. Information included in this chapter provides a basis for our conclusions and addresses the specific items requested to be reviewed for the audit. See Appendix A for a timeline of events related to the space utilization study.

Definition of Space Utilization Study

Information presented to a legislative committee in June 2016 by the North Dakota University System (NDUS) Director of Facilities Planning regarding the NDUS master plan and space utilization study included the following information:

“Criteria for determining space utilization based on current recognized methods:

- Amount of time classrooms and class labs are being used (schedule component)
- Occupancy based on number of student stations in each room (density component)
- $\text{Schedule} \times \text{Density} = \text{Utilization}$ ”

Based on a review of other studies, the above information appeared to be an appropriate definition of space utilization. We used this definition to assist in completing the audit. A space utilization study is conducted based on a particular point in time. Thus, the primary use at the time of inventory determines how a room is coded or classified. The primary use of a room may change from year to year.

Background Information

In July 2012, the newly hired Chancellor requested \$1 million be added to the NDUS's 2013-15 budget request. The requested funds were to be used to engage an external consultant to complete a system-wide analysis of space utilization and to develop a system-wide facility master plan during the 2013-15 biennium. The system-wide campus master plan, including space utilization study, was described as being beneficial as it would provide an independent review of campus needs based on objective

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criteria by an outside firm and a cohesive master plan for the NDUS. The requested \$1 million was approved by the SBHE and was included in the Governor's Executive Budget Recommendation. The 2013 Legislature appropriated \$1 million for a master plan and space utilization study.

The Chancellor was placed on administrative leave and an Interim Chancellor was appointed before the effective date of the \$1 million appropriation. The change in leadership appeared to create confusion related to the intended scope of the master plan and space utilization study.

The initial contract amount was \$975,000 for the master plan and space utilization study. A contract amendment (cost of \$143,000) was entered into in an attempt to complete the space utilization study. The 11 campuses paid over 90% of the contract amendment cost. See Appendix B for information related to the selection of a consultant to perform the review and additional contract information.

Testimony

During the 2013 Legislative Session, the Chancellor provided testimony related to the master plan and space utilization study. A review of committee minutes and testimony provided additional information related to the master plan and space utilization study. The Chancellor did not believe the master plan would indicate the need to spend a lot of money to upgrade campus buildings "but a great component of this master plan is to identify deferred maintenance. It will prioritize that based on what can be done this biennium, what can be done next biennium, so they can be handled over time." Also, the Chancellor stated:

- The study would provide information to determine whether there are enough class offerings based on the number of students pursuing a particular degree.
- The master plan would not give a view of the appropriateness of class sizes at a campus; however, it would give information on whether to expand a facility.
- The difference between the master plans the campuses already have (not backed by utilization study) and the master plan and space utilization study to be conducted (space oriented).
- "Using a nationally recognized architectural and engineering firm to develop a master plan, we can make scientific recommendations for building needs, based on current programmatic requirements and future demands."

Master Plan

North Dakota University System Systemwide Master Plan, dated June 2014, was the first report completed by the consultant. We conducted a limited review of the consultant's report to identify information related to space utilization. The consultant identified a number of deficiencies

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related to space utilization data. In June 2014, the SBHE accepted the consultant's master plan findings and recommendations.

The master plan report did not contain information considered to be a space utilization study. In fact, the consultant informed a legislative committee in June 2014 there was not sufficient information available to review classroom utilization levels. The consultant also informed the committee the study suggested a space utilization study be conducted to determine the appropriate amounts of classroom, laboratory, and office space at each campus.

The report prepared by the consultant included sections on demographic analysis, workforce/program alignment, facility condition assessment, deferred maintenance and capital project approval process, review of individual master plans, capital request evaluations, research and development issues, and information technology infrastructure. The consultant had reviewed the most recent master plans from each campus. A conclusion of the consultant was:

“The master plans do not contain any space utilization or space needs elements, which is normally a part of master planning. It would be highly desirable for NDUS to move toward adding these elements to the individual master plans.”

The consultant stated the most effective approach to better evaluate capital projects was a macro-level analysis providing square feet per full time student by major space categories with other metrics used for research and offices. The consultant stated only three campuses were able to produce room inventories and until such room inventories were available across the NDUS, it was not possible to conduct the type of macro-level analysis recommended. The consultant stated:

“Room inventories need to be developed and maintained at each institution.”

The consultant included information for the three campuses able to provide facilities room inventory data to illustrate how the process could be implemented across the NDUS. The information provided was assignable square footage per student full-time equivalent (FTE) and headcount by each major room type category and total assignable square footage for each campus. Assignable space is the space which can be used for people or programs and does not include spaces such as a circulation area, building service area, or mechanical area.

The report included two charts using the building information the NDUS was able to provide. The buildings were divided into three categories:

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- Direct Academic Space
- Other State Supported Space
- Auxiliary Space

One chart listed gross square footage per headcount and FTE by building category for each campus. The second chart listed assignable square footage per headcount and FTE by building category for each campus. Since assignable square footage was not provided by the campuses, the consultant used 65% of the gross square footage to approximate the assignable square footage. The percentage used had been recommended by the NDUS Director of Facilities Planning. The consultant stated the initial enrollment figures used represented the entire academic effort of the campuses. A substitution for headcount was made to reflect on-campus, unduplicated, face-to-face headcount. The consultant stated some campus representatives identified there are other students who should be added to the headcount number. The consultant urged the NDUS to look to whether additional reporting tables should be developed to more accurately reflect the on-site instruction. The consultant also stated there were no enrollment figures which provided on-site only FTE. Therefore, total FTE was used.

The report stated, “the consultant conducted two rounds of classroom utilization from the course data that was submitted centrally to calculate student credit hours for the official records. There is no room file that provides information on which rooms are classrooms, the room capacity, or a room’s square foot amount, so square foot per seat cannot be calculated. After having preliminary data reviewed by knowledgeable staff within NDUS and receiving comments during the campus visits, the data was deemed unreliable and was not included in the analysis. The institutions need to keep updating the course information so that the current locations where courses are taught are reflected in the term in which the information is submitted.” The report also stated:

- “A room file for classrooms needs to be developed to allow classroom utilization to be run. This could be done before a complete room inventory is developed but would need attention from each institution to compile accurate information.”
- “The consultant was not able to draw any reliable conclusions regarding the classroom usage based on using the statewide course file.”

Memorandums Related to Assignable Square Footage

The consultant issued two memorandums on the NDUS state supported facilities to provide assignable square footage information by campus and benchmark comparisons. We were unable to identify the information in either memorandum being presented to the SBHE.

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December 2014 Memorandum

In December 2014, the consultant issued a memorandum using Fall 2013 enrollment data. The consultant stated when the master plan was conducted in the first half of 2014, the NDUS did not have facilities inventory data for most of its campuses. In the fall of 2014, each campus inventoried all of their spaces. The process was overseen by the NDUS Facilities Planning Office. A campus representative stated the campuses were on the “honor system” as information was being self-reported. The information in the memorandum focused on the following categories:

- Direct Academic Facilities
- Other State Supported Space
- Leased Space

The memorandum contained two tables. One table provided total assignable square footage by category for each campus. Another table provided assignable square footage per FTE and headcount by category for each campus. Unduplicated, face-to-face, on-campus headcount was used in this memorandum. The consultant stated the NDUS would be conducting a classroom and teaching laboratory utilization study. The study would provide significant clarity regarding the extent to which campuses use their academic facilities.

January 2015 Memorandum

In January 2015, the consultant issued another memorandum on NDUS state supported facilities. This memorandum was similar to the one issued in December 2014. However, the January 2015 memorandum was based on the Fall 2014 enrollment data. Also, total headcount was used in this memorandum. Using total headcount instead of unduplicated, face-to-face, on-campus headcount (as used in the first memorandum) significantly reduced the overall total assignable square footage per headcount.

Analysis of Fall 2014 Utilization of Classrooms and Teaching Laboratories

Analysis of Fall 2014 Utilization of Classrooms and Teaching Laboratories, dated March 2015, was the final report prepared by the consultant in an attempt to complete a space utilization study by the end of the 2015 Legislative Session. The attempt to complete the study appeared to be rushed. We conducted a review of the consultant’s report, analyzed the data provided to the consultant, and interviewed NDUS representatives.

The final report did not contain information considered to be a complete space utilization study. For example, the report includes zeros in columns as the classroom and laboratory capacity information was not available. Thus, one of two components of a space utilization study was lacking. The consultant stated a lack of classroom and teaching laboratory seat count information provided an incomplete utilization picture. We identified additional concerns with the report related to incomplete and inconsistent information (further addressed in the subsection entitled

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Comprehensiveness of the Study on page 7). We were unable to identify the final report being presented to the SBHE.

The report prepared by the consultant contained certain classroom and teaching laboratory utilization summary information by campus. This summary information included number of rooms, total assignable square footage of rooms, average enrollment, average weekly room hours, number of rooms without utilization, and percent of rooms without utilization. Additional utilization was provided in appendices. One appendix contained classroom utilization analysis by building summary, classroom utilization analysis by building, classroom use by day and time, teaching laboratory utilization analysis by building summary, and teaching laboratory utilization analysis by building. The other appendix contained the consultant's utilization analysis with room-by-room findings aggregated by building for each campus's classrooms and teaching laboratories.

The consultant cited insufficient or incomplete data contributed to low utilization, including information on distance learning sections, information on professional school utilization, TrainND data, documentation of laboratory sections, and room code selection. In addition, the consultant stated a lack of classroom and teaching laboratory seat count information provided an incomplete utilization picture, as the classroom and laboratory capacity was not available. The consultant recommended significant additional work take place during 2015 to obtain and record additional important data to better reflect the utilization of instructional facilities.

Requested Information

The motion passed by the Legislative Audit and Fiscal Review Committee for a performance audit on space utilization requested the audit review four specific areas. The requested information is provided in the following subsections.

Individuals Involved in the Study

The motion requested a review of the involvement of board members, board office staff, and campus personnel in the study. The involvement of these individuals was as follows:

Board Members

SBHE members did not appear to be involved in the study.

Board Office Staff

Board Office staff or NDUS staff involved in the study and a brief description of their involvement follows.

- Interim Chancellor: appointed selection committee members and instructed campus presidents to take necessary actions to clean up their data.

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- Vice-Chancellor of Administrative Affairs: a member of the selection committee, negotiated contract terms, and signed contracts.
- Director of Facilities Planning and other Facilities Planning Office staff: the Director was the chair of the selection committee, liaison between the consultant and the campuses, and provided guidance and assistance throughout the study processes. Staff oversaw the facilities inventory process.
- Core Technology Services staff: generated certain information provided to the consultant such as course data.

Campus Personnel

Various campus personnel were identified as being involved in the study, including, but not limited to:

- Vice Presidents of Finance or equivalent
- Vice Presidents of Academic Affairs
- Facilities Management Directors
- Registrars

The involvement and responsibilities of campus personnel would have been different at each campus. Campus personnel were on the selection committee, provided facilities inventory and course data, and at certain campuses, manually measured the square footage of rooms. In addition, campus personnel would have been responsible for answering questions from the consultant and reviewing draft information.

Comprehensiveness of the Study

The motion requested a review of the comprehensiveness of the study. Based on our review of information, it does not appear a comprehensive study was done. In addition, the consultant's statements reiterate a comprehensive study was not done. Examples from the March 2015 report of areas contributing to a lack of a comprehensive study follows.

- The consultant's study focused on the utilization of classrooms and teaching laboratories used for formally scheduled credit-bearing academic courses at each campus. Other types of course offerings do not appear to be reflected in the study. For example, Dickinson State University and Minot State University classes held in Bismarck State College classrooms were not included.
- While the report stated the NDUS intended to conduct a statewide analysis in the future of all the educational and general space, the study only focused on classrooms and teaching laboratories used for formally scheduled credit-bearing academic courses. No information was included on research facilities, academic and administrative offices, library and study spaces, and other special use, general use, and support activity spaces falling within the educational and general facilities supported by the state.

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- The report does not define certain terminology and does not make it clear what the study would have included or excluded. In a limited review of data used by the consultant, we identified rooms with scheduled classes not being included in the report. For example, we identified a room with no coding assigned to it was not properly identified as being used by the campus for three classes. Also, we identified certain rooms coded as special class labs were not included in the report. For the 42 special class labs in the data having 3 or more classes scheduled, only one was included in the report (four classes scheduled in the room).
- We identified inconsistencies in how campuses reported information. This resulted in certain courses being included in the study when similar courses were excluded.

The consultant's report specifically addresses the fact insufficient or incomplete data contributed to low utilization. The report stated the lack of classroom and teaching laboratory seat count information provided an incomplete utilization picture. The consultant recommended significant additional work take place during 2015 to obtain and record additional important data to better reflect the utilization of instructional facilities. We conclude a completed space utilization study has not been conducted by an independent, third party.

Contractor's Compliance

The motion requested a review of the contractor's compliance with terms of the contract. Our review was limited to the contractor's compliance with terms related to the space utilization study. The potential noncompliance with contract terms was directly related to the NDUS's inability to provide the required data. For example, the NDUS was unable to provide seat count information necessary for the consultant to be able to determine the density component of a space utilization study.

SBHE Actions Taken

The motion requested a review of the SBHE actions taken as a result of the study. We did not identify the March 2015 report being presented to the SBHE. We performed a limited review of information from June 2014 thru September 2016. Our review identified limited actions taken by the SBHE.

During the SBHE's June 26, 2014 meeting, the Board directed the NDUS to develop an implementation plan to be presented to the Board at the September 2014 meeting. The *NDUS System-wide Master Plan Implementation of the Recommendations and Findings* was presented and approved by the SBHE on October 2, 2014. The implementation plan is separated into three sections. Each section includes goals, actions to complete the goals, time period for completion, and the parties responsible for completing the actions. Certain goals in the first and second sections of the implementation plan appear to relate to space utilization. Examples

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of actions included facilitating development of an accurate space and classroom inventory and a comprehensive classroom utilization study, including space utilization information within the campus master plans as a requirement for demonstrating space needs, implementing a software system at each campus for maintenance and space inventory information, and ensuring consistent classroom data is being entered.

During the April 28, 2016 SBHE meeting, the Board approved three recommendations to implement standards relating to master planning and space utilization. These recommendations were as follows:

- Require central scheduling of a minimum of 95% of classrooms and class labs at each campus to improve classroom and class lab utilization.
- Prioritize deferred maintenance projects which improve classrooms and class labs currently underutilized due to existing conditions.
- Remove facilities in lieu of repair where the estimated deferred maintenance cost is greater than 65% of the replacement value unless there is significant historical or other value present in the building.

Deferred Maintenance Funding Pool Allocation

The NDUS was appropriated \$10 million for a deferred maintenance funding pool for the 2013-15 biennium. See Appendix C for additional information related to the deferred maintenance funding pool. Chapter 34, Section 21 of the 2013 Session Laws states, in part:

“The deferred maintenance funding pool line item includes funding that must be used to address deferred maintenance and other infrastructure needs at institutions based on the university system master plan and space utilization study. However, the state board of higher education may distribute up to one-half of the funds in the pool to institutions prior to the completion of the master plan and space utilization study.”

According to the Session Law, the SBHE was given authority to distribute up to half of the funds, or \$5 million, “prior to the completion of the master plan and space utilization study.” We conclude \$10 million was distributed prior to the completion of a space utilization study resulting in apparent noncompliance with legislative intent. Information on the distribution of the \$10 million follows:

- \$5 million approved for distribution by the SBHE in September 2013.
- \$5 million approved for distribution by the SBHE in June 2014. The documentation requesting \$5 million be distributed includes information related to a master plan being completed. However, the documentation fails to identify to the SBHE the Session Law requirements for the completion of a space utilization study.

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While we identified an apparent noncompliance issue, we do not make a recommendation as no specific corrective action was readily identifiable. The master plan and space utilization study requirement linked to the deferred maintenance pool appears to have been a one-time occurrence. The issue of distributing the deferred maintenance pool appropriation prior to completion of a space utilization study was discussed with NDUS Office representatives who appeared to agree with our conclusion. See Appendix D for management's response to the report.

Concerns with Deferred Maintenance Estimates

While the scope of the performance audit related to a space utilization study, we did identify concerns related to the accuracy of the deferred maintenance estimates reported in the *North Dakota University System Systemwide Master Plan*, dated June 2014. For example, the consultant used a sample of buildings at each of the campuses to assess deferred maintenance and used the assessments to project an estimated amount. Rather than the consultant making a sample selection, each campus was allowed to select the buildings to be assessed. In addition, while the contract required 8 buildings at the University of North Dakota (UND) be assessed, only 5 building were assessed. Information provided to the SBHE in April 2016 stated the estimates from the consultant were proving to be inaccurate as actual deferred maintenance costs were "significantly in excess" of the estimated amounts.

In discussing the consultant's review of deferred maintenance with UND representatives, we identified additional concerns. The representatives indicated UND hired a different consultant about a year ago (2015) at a cost of approximately \$375,000 to conduct a full condition assessment on all buildings. Rather than the 4-5 days of on-site work performed by the NDUS consultant, UND's hired consultant was on-site approximately 4-5 months. According to a UND representative, the deferred maintenance amount calculated by the UND-hired consultant was at least double the amount reported in the June 2014 report for comparable building types.

Audit and Background Information

Purpose and Authority of the Audit

North Dakota Century Code Chapter 54-10 provides the State Auditor the authority to conduct performance audits of state entities. The performance audit of the NDUS Space Utilization Study was conducted by the Office of the State Auditor pursuant to a motion passed by the Legislative Audit and Fiscal Review Committee. The purpose of this report is to provide our analysis and conclusions based on a review of information related to efforts to conduct a space utilization study in the 2013-15 biennium.

Performance audits are defined as engagements that provide assurance or conclusions based on an evaluation of sufficient, appropriate evidence against stated criteria, such as specific requirements, measures, or defined business practices. Performance audits provide objective analysis so management and those charged with governance and oversight can use the information to improve performance and operations, reduce costs, facilitate decision making by parties with responsibility to oversee or initiate corrective action, and contribute to public accountability.

Background Information

The NDUS is comprised of 11 campuses governed by the eight-member SBHE. The board includes seven citizen members appointed by the Governor who serve four-year terms and one student member appointed by the Governor for a one-year term. A non-voting faculty advisor is selected by the Council of College Faculties and a non-voting staff advisor is selected by the NDUS Staff Senate.

NDUS requested, and was appropriated, \$1 million for a master plan and space utilization study to be completed during the 2013-2015 biennium. A timeline of events can be viewed in Appendix A. The timeline includes reports and memorandum information, contract and amendment dates, and other pertinent information.

Objective of the Audit

The first phase of a performance audit conducted by our office is to obtain background information, obtain an understanding of the program under audit, and to identify information to develop an audit objective(s) for field work. Following the completion of the first phase of the performance audit of the NDUS Space Utilization Study, we concluded a space utilization study was not completed during the 2013-15 biennium. While a consultant attempted to complete a classroom and teaching laboratory utilization study, the report issued in March 2015 was not complete, lacked necessary information, and included inconsistent information. We were able to conduct the necessary work to provide the information included in the April 2015 motion passed by the Legislative Audit and Fiscal Review Committee. We also concluded additional work related to the NDUS Space Utilization Study would not be performed at this time. Therefore, an audit objective for field work was not considered necessary.

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Scope and Methodology

We conducted this performance audit in accordance with generally accepted government auditing standards. The standards require we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions. We believe the evidence obtained provides a reasonable basis for our finding and conclusions.

The audit time period reviewed was July 1, 2013 to June 30, 2015. In certain instances, additional information was reviewed. This was done, in part, to identify information related to the \$1 million appropriated amount and the actions taken related to space utilization information after June 30, 2015.

As part of this performance audit, SBHE policies and NDUS procedures relating to master plans, space utilization, and similar areas were reviewed. In addition, budget documents, Session Law chapters, and legislative committee and SBHE minutes were reviewed for information pertaining to the master plan and space utilization study.

We conducted interviews with applicable personnel to obtain an understanding of the processes. A review of space utilization studies completed on other colleges and universities was conducted. We also reviewed information used for coding rooms within college and university buildings published by the U.S. Department of Education.

A review of the master plan and space utilization study processes was conducted. Our review included identifying and reviewing the processes used for selecting a consultant; the contracts entered into and payments made under the contracts; directives, guidance, instructions, etc. provided by SBHE and/or the NDUS Office to campuses; the information and processes used; and actions taken as a result of the master plan and space utilization studies. We performed a limited review of information reported by the consultant.

Space Utilization Study Timeline of Events

Date	Event
July 12, 2012	2013-2015 budget request is amended by the SBHE at the newly hired Chancellor's request to include \$1 million to develop a system-wide campus master plan, including space utilization study.
June 20, 2013	The Chancellor is put on administrative leave.
July 1, 2013	The \$1 million appropriation to the NDUS for the Master Plan and Space Utilization Study becomes effective.
August 6, 2013	Interim Chancellor informs the interim Higher Education Committee discussions are being held to determine how to conduct the study.
November 26, 2013	Request for Proposal is issued to four firms selected by the NDUS.
December 20, 2013	NDUS personnel conduct interviews with four firms.
January 8, 2014	Original contract agreement in the amount of \$975,000 is effective.
May 29, 2014	The SBHE is presented with a draft NDUS system-wide master plan.
June 2014	<i>NDUS Systemwide Master Plan</i> report is issued. This report includes master planning information. However, the report identifies space utilization and space needs should be added into the process.
June 3-4, 2014	Consultant informs the interim Higher Education Committee a space utilization study still needs to be conducted.
June 26, 2014	The SBHE accepts the consultant's master plan findings and recommendations.
July 22, 2014	An interim Higher Education Committee member states the entire master plan and space utilization study should be completed prior to the 2015 Legislative Session.
October 2, 2014	The SBHE approves the <i>System-Wide Facility Master Plan Study Implementation Plan</i> . Actions to be taken to revise institutional master planning procedures include developing an accurate space and classroom inventory and including space utilization information within the institutional master plans.
December 22, 2014	A memo is issued providing assignable square footage information based on Fall 2013 enrollment data for unduplicated, face-to-face, on-campus headcount.
January 8, 2015	A memo is issued providing assignable square footage information based on Fall 2014 enrollment data for total headcount.
February 20, 2015	An amendment to the original contract, in the amount of \$143,000, is effective. The additional services requested include analyzing classroom and teaching laboratory utilization, determining utilization targets, and reviewing capital project proposals.
March 2015	<i>Analysis of Fall 2014 Utilization of Classrooms and Teaching Laboratories</i> report is issued. The report lacks the occupancy utilization aspect (density component) of space utilization. We conclude a space utilization study was not completed during the 2013-2015 biennium.
April 21, 2015	The Legislative Audit and Fiscal Review Committee passes a motion for a performance audit of the space utilization study completed for the SBHE during the 2013-15 biennium.

Selection Process and Contract Information

In Chapter 1, information related to the results of a review performed by a consultant was addressed. In this appendix, additional information is provided related to the selection of the consultant, original contract, and contract amendment.

Selection Process

The start of the selection process appeared to begin when the Interim Chancellor established a selection committee. The selection committee developed goals and aspirations as to what they wanted the study to accomplish, including information on space, demographics, deferred maintenance, etc. The selection committee consisted of the following NDUS Office staff and campus personnel:

- NDUS Vice Chancellor of Administrative Affairs
- Valley City State University Vice President of Business Affairs
- Minot State University Vice President of Academic Affairs
- Bismarck State College Executive Vice President/Interim President
- North Dakota State University Facilities Management Director
- NDUS Director of Facilities Planning

The NDUS Director of Facilities Planning was selected as the non-voting chair to oversee selection compliance. According to the Director of Facilities Planning, the selection process followed the requirements in North Dakota Century Code Chapter 54-44.7 related to procuring architect services.

Request for Proposals

The Director of Facilities Planning indicated a request for qualifications was posted and sent directly to seven or eight firms. This process resulted in four firms being sent a Request for Proposal on November 26, 2013. The general scope of services outlined in the Request for Proposal stated:

- Develop a comprehensive System-Wide Master Plan for 2025, with a specific facilities and infrastructure plan for the period 2015-2020, based on the following:
 - Programmatic and research needs
 - Changing state demographics and economics
 - New learning environments
 - Changing technology and related infrastructure requirements
 - Institutional mission and strategic directions
 - NDUS strategic plan goals
 - State priorities
 - Provide an overview of current space utilization related to benchmarks.
 - Identify opportunities for new shared-learning delivery models.
 - Generate templates and guidelines for development of campus master plans.
 - Review and recommend solutions for aging heating plant operations.
 - Identify significant major areas of deferred maintenance, including utility infrastructure.
-

Appendix B Selection Process and Contract Information

- Recommend system-wide approach to maintain future tracking/implementation process.

The selection committee scored each of the four proposals submitted and conducted interviews. The highest scoring firm was selected to conduct the master plan and space utilization study.

Original Contract

The following table highlights the work plan components and budget allocation included in the January 2014 contract between the NDUS and the consultant selected to conduct the master plan and space utilization study:

#	Component Description	Amount
1	Demographic Analysis and Workforce/Program Alignment	\$95,000
2	Facilities Data and Analysis	\$125,000
3	Deferred Maintenance/Life Cycle Assessment	\$250,000
4	Review of Individual Master Plans	\$55,000
5	Research & Development Issues	\$25,000
6	IT Infrastructure	\$25,000
7	Campus Meetings at all 11 Campuses and Statewide Coordination	\$240,000
8	Project Report Development	\$60,000
	Project Management (prime consultant, includes \$10,000 authorized at outset)	\$50,000
	Project Contingency	\$50,000
Total Budget Allocation		\$975,000

Of the eight components, only the Facilities Data and Analysis component included information related to a space utilization study. The component included the following sections:

- Data Collection
- Assignable Square Feet per Full-Time Equivalent (FTE) by Campus and Benchmark Comparisons
- New Learning Environments
- New Shared-Learning Delivery Models
- Classroom Utilization Analysis

In the Data Collection section of the work plan, the consultant identified the information provided by the NDUS as of the contract date showed room-by-room facilities data was not available for the campuses. The NDUS was able to provide gross square feet by building information. The consultant intended to look carefully at the building data collected by each campus and make recommendations regarding the types of analysis that could be performed based on the level of detail.

In the Assignable Square Footage per FTE by Campus and Benchmark Comparisons section of the work plan, the consultant believed it was

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highly desirable to understand differences in square feet per student for educational and general space. Total square footage for each building for each of the campuses had been provided. The buildings were divided into three categories:

- Tier 1 (educational and general)
- Tier 2 (some state support)
- Tier 3 (total auxiliary)

The consultant's focus was going to be on Tier 1 and Tier 2 buildings. The consultant intended to provide square feet per FTE student information at the campus-wide space level and, if more detailed inventory could be achieved, at the major room type level (classrooms, laboratories, etc.). The results of this type of analysis could potentially indicate whether there was additional capacity or surplus at some campuses and how campuses by sector compared with other systems from which the consultant had done analysis.

In the Classroom Utilization Analysis section of the work plan, the consultant understood each campus maintained course offering information in an Ad Astra course scheduling system and there had been no system-wide utilization studies or guideline parameters in place. The consultant requested course data from the Fall 2013 semester to be entered into the consultant's proprietary software to provide utilization findings for classrooms. The goal was to calculate weekly room hours and weekly student contact hours for classrooms and laboratories for each campus. Summary findings would be produced for each campus and aggregated at the NDUS level by type of campus. This information was to be compared to other studies completed by the consultant.

Contract Amendment

In mid-February 2015, a contract amendment in the amount of \$143,000 was entered into between the consultant and NDUS. Approximately \$135,000 of the extra cost to conduct the study was allocated among the campuses. The work was to be completed by March 31, 2015 with initial drafts provided no later than March 15, 2015. Information on the four tasks included in the contract amendment follows.

1. Classroom Utilization: The consultant was to analyze spaces where scheduled lecture/discussion courses occurred. The consultant was to use Fall 2014 Ad Astra course file information and each campuses' facilities inventory data to determine hours per week of scheduled use, percentage of seats filled when the room was in use, and the space per student. The classroom utilization analysis was to provide graphs showing the utilization by time of day and day of the week so patterns across the week could be determined.
2. Teaching Laboratory Utilization: The consultant was to analyze the scheduled laboratory courses occurring within spaces designated as

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teaching laboratories. The consultant indicated teaching laboratory utilization was most informative when summarized by discipline; however, it could be summarized by building. As with the classroom analysis, the hours per week and percent of station occupancy were to be calculated.

3. Set NDUS Utilization Targets: the consultant was to look for patterns within types of campuses to set utilization targets related to weekly room hours and target percent of seats filled when rooms have scheduled use.
4. Capital Project Proposal Review: The consultant was to provide an independent, third party review of capital project proposals to assess their relationship to, and impact upon, deferred maintenance backlog. The consultant was also to compare project proposals using space utilization information to assess if projects resulting in additional space were reasonable and appropriate.

Deferred Maintenance Pool Timeline and Allocation

Date	Event
July 1, 2013	A \$10 million appropriation for a deferred maintenance funding pool is effective with half available for disbursement immediately and the other half available when the master plan and space utilization study is completed (2013 Session Law, Chapter 34).
September 25, 2013	The SBHE approves the allocation of the first \$5 million from the deferred maintenance funding pool. The distribution was based on a statewide Office of Management and Budget extraordinary repairs formula, a minimum amount of funding, and other adjustments.
September 26, 2013	At the interim Higher Education Committee, the Interim Chancellor states the first \$5 million of allocations from the deferred maintenance funding pool has been approved with the remaining \$5 million to be distributed after the completion of the master plan and space utilization study.
June 6, 2014	Options to distribute the remaining \$5 million were reviewed by the NDUS Administrative Affairs Council.
June 26, 2014	The SBHE approved the allocation of the remaining \$5 million from the deferred maintenance funding pool. The plan required \$275,000 be allocated to Valley City State University for a recently identified safety issue. The remaining amount was allocated to the 11 campuses based on deferred maintenance information included in a consultant's June 2014 report. The total amount distributed to campuses follows:

June 26, 2014 Deferred Maintenance Pool Allocation	
Campuses	Amount
North Dakota State University	\$1,192,620
University of North Dakota	948,434
Valley City State University	725,337
Minot State University	574,389
Dickinson State University	291,924
Bismarck State College	271,791
Mayville State University	233,223
North Dakota State College of Science	220,089
Dakota College at Bottineau	206,933
Lake Region State College	181,259
Williston State College	154,001
Total	\$5,000,000

Management's Response

A draft copy of the performance audit report was provided to the Audit Committee of the SBHE and representatives of the NDUS Office. The following response was provided:

The NDUS agrees that a space utilization study was not completed during the 2013-15 biennium. The proposals received from various consultants indicated that the available funding (\$1.0 million) would not allow for a system-wide master plan and space utilization study. Due to budget limitations, the project scope was limited to a master plan, including deferred maintenance, and classroom/laboratory utilization analysis. During the review, the consultant noted that the space utilization data provided by NDUS was of questionable quality, appeared inconsistent between institutions, or did not exist at the time of the review. The NDUS considers the consultant's preparation of the master plan and analysis of space utilization data to be accurate within the limitations of data quality available at the time.

NDUS acknowledges that \$5.0 million of the deferred maintenance funding pool was distributed upon completion of the master plan and deferred maintenance project, which did not include a completed space utilization study due to lack of funding and lack of necessary data. Funds were utilized for valid, necessary deferred maintenance projects at all campuses.

During the 2015-17 biennium, the NDUS Director of Facilities Planning continued the master planning and space utilization review process. The State Board of Higher Education, at the April 28, 2016 meeting, approved institutional master plans, with the exception of the Program and Enrollment Driven Needs section, which was postponed. The SBHE also approved three recommendations intended to improve classroom and laboratory utilization and reduce deferred maintenance. The recommendations are:

1. Require central scheduling of a minimum of 95% of classrooms and class labs at each institution to improve classroom and class lab utilization.
2. Prioritize deferred maintenance projects that improve classrooms and class labs which are currently underutilized due to existing conditions.
3. Remove facilities in lieu of repair where the estimated deferred maintenance cost is greater than 65% of the replacement value unless there is significant historical or other value present in the building.

The NDUS will continue to strengthen existing policies and procedures related to space utilization at all NDUS institutions.