

Nevada System of Higher Education Education Space Study



Background

- Original space standards and procedures approved by Board of Regents in 1967, revised in 1984, 1999, 2002, and 2005.
- Previous space study reports developed in 1990's in partnership with MGT Consulting Group.
- Suspension of space reporting process at September 2009 Board meeting.
- Working group established to modify Space Inventory and Utilization Reports.
- Final working group deliverables approved by the Board of Regents at the September 2010 meeting.
- Technology and Implementation subcommittee tasked with automating the production of the new reports in accordance with the approved deliverables.

Board of Regents Space Study Deliverables

1. Both the Inventory Report and the Utilization Report must be revised using internal resources, without external consulting fees.
2. Both the Inventory Report and the Utilization Report must be credible, understandable, and provide meaningful information for the Chancellor, the Board, and the Presidents to make decisions about space planning.
3. Both the Inventory Report and Utilization Report must be auditable.
4. Both the Inventory and Utilization Report must consider innovative space reporting and scheduling practices used by NSHE and other entities.

Board of Regents Space Study Deliverables Continued

5. The utilization Report must eliminate dependence on the artificial standards that reduce the expectation for full occupancy.
6. Utilization Report must redefine full capacity and recognize the full spectrum of time in which space is available for use, and include capacity triggers based on demand analysis methods applied to predict the need for new space.
7. Utilization Report must recognize and account for the “in-classroom” component of on-line enrollments.
8. Data collection for both the Inventory Report and the Utilization Report must, to the extent possible, be automated and use consistent, shared data bases.

Board of Regents Space Study Deliverables Continued

9. Data collection for both the Inventory Report and the Utilization Report must be expanded to include medical and dental facilities, and other appropriate spaces currently excluded from the existing methodology.
10. The Utilization Report must include mechanisms to quantify inefficient space configuration, with the ability to identify surplus space for purposeful reconfiguration as part of future deferred maintenance, capital renewal, and plant adaption projects.
11. The Utilization Report must be expanded to include instructional space associated with short-term, non-credit courses, including Business and Industry workshops, public service courses, and school district partnerships.
12. Both the Inventory Report and the Utilization Report must recognize instructional spaces used for multiple purposes.

Major Components of the new Space Utilization Report

- Room Use and Capacity
- Absolute Numbers
- Full Spectrum of Time Available
- Non-traditional Courses, Medical Facilities, and Hybrid Classes
- Qualitative “Exception Report”

Space Reports
 Facilities Inventory and Classification Manual (FICM)
 Summary Group Codes

Description:	NSHE Space Types/FICM Inventory Space Codes:
Classrooms	110, 115
Class Labs	210, 215, 220, 225
Research Labs (1)	250, 255
Offices	310, 315
Conference Rooms	350, 355
Study Facilities (2)	410, 455
Library (3)	410, 420, 430, 530, 535
Athletics/Physical Education	520, 523, 525
General Use Facilities	600, 615, 620, 625, 630, 635, 650, 655, 660, 665, 670, 675, 680, 685
Support Facilities	710, 715, 720, 725, 730, 735, 740, 745, 750, 755, 760, 770, 775, 780
Health Care Facilities	810, 815, 820, 830, 835, 840, 845, 850, 855, 860, 865, 870, 880, 890, 895
Residential Facilities	910, 919, 920, 935, 950, 955, 970
All Other (4)	510, 515, 540, 545, 550, 555, 560, 570, 575, 580, 585, 640, 645

TARGET UTILIZATION RATES BY STATE as/of 8-3-10

INSTITUTION/STATE (1)	Classrooms		Class Labs		NOTES/COMMENTS
	RM HRS/WK	PCT FILL	RM HRS/WK	PCT FILL	
Alaska: CC's and University	30.0	60.0	20.0	80.0	
Arizona: University	35.0	65.0	25.0	85.0	
California: CC's CSU and UC	42.0	71.4	27.0	80.0	
Colorado	30.0	67.0	20.0	80.0	
Florida: University	40.0	60.0	20.0	80.0	
CC Under 2,500 Enrolled	58.5	55.0	21.0	80.0	
CC Over 2,500 Enrolled	58.5	60.0	24.0	80.0	
Kansas	30.0	60.0	20.0	80.0	
Kentucky	38.0	67.0	23.0	80.0	
Louisiana	30.0	60.0	20.0	80.0	
Maryland: CC's Under 1,000 FTE Enrolled	30.0	60.0	20.0	75.0	
CC's 1,000-2,499 FTE Enrolled	31.0	62.5	21.0	80.0	
CC's 1,500-4,999 FTE Enrolled	32.0	62.5	22.0	80.0	
CC's Over 5,000 FTE Enrolled	33.0	65.0	23.0	80.0	
Univ Under 3,000 FTE Enrolled	30.0	60.0	21.0	79.0	
Univ 3,000-6,000 FTE Enrolled	30.0	65.0	21.0	79.0	
Univ Over 6,000 FTE Enrolled	30.0	70.0	21.0	79.0	
Nebraska	30.0	65.0	20.0	65.0	
Nevada (2)	30.0	60.0	20.0	80.0	
New Hampshire	30.0	60.0	18.0	70.0	
New York	30.0	80.0	22.0	75.0	
North Carolina	35.0	65.0	20.0	75.0	
Ohio: Technical	31.5	67.0	n/a	n/a	
Community Colleges	31.5	67.0	n/a	n/a	
University	31.5	67.0	22.5	80.0	
Oklahoma: Less Than 1,000 Enrollment	27.0	40.0	24.0	80.0	
1,000-2,999 Enrollment	28.5	40.0	24.0	80.0	
3,000 or More Enrollment	30.0	40.0	24.0	80.0	
Oregon	33.0	60.0	16.0	75.0	
Penh: CC's - Number of Rooms					
10-25	32.0	75.0	26.0	80.0	
26-45	36.0	67.0	26.0	80.0	
46-70	36.0	67.0	26.0	80.0	
71-125	30.0	75.0	26.0	80.0	
126-Over	23.0	80.0	26.0	80.0	
South Carolina	35.0	60.0	16.0	75.0	
South Dakota: Univ AA's	32.0	65.0	18.0	80.0	
Univ BA & Masters	30.0	60.0	20.0	85.0	
Doctoral	28.0	55.0	16.0	75.0	
Tennessee	30.0	67.0	18.0	80.0	
Texas	38.0	67.0	25.0	80.0	
Utah	34.0	67.0	22.5	80.0	
Virginia	n/a	n/a	n/a	n/a	
Washington	20.0	60.0	20.0	80.0	
Wisconsin	30.0	67.0	24.0	80.0	
Wyoming	33.0	60.0	20.0	76.0	
Footnotes:					
(1) All states except Nevada currently consider utilization targets on the basis of their "Best 45" hours of the week.					
(2) Nevada currently considers utilization targets on the basis of a 96 hour week, (M-S 8a-10p) which translates to a total weekly hour usage expectation of 65.3 hours/week for Classrooms and 32.7 hours/week for Class Laboratories.					
(30 hours/week M-F, 8a-5p + 35.3 hours/week M-F, 5p-10pm, Saturday and Sunday for Classrooms, and 20 hours/week M-F, 8a-5p + 12.7 hours/week M-F, 5p-10p, Saturday and Sunday for Class Laboratories)					
Sources: MGT of America report "Space Standards for Selected States Higher Education Systems", 1999					
California Postsecondary Education Commission Report 90-3, "A Capacity for Learning", 2004					

Current Space Need Predictors

Nevada System of Higher Education Space Inventory Predictors - Current Need Calculations

Facility Type	Driver	Process	Rate	Current Calculated Need for Space
CLASS ROOMS	Total student FTE	multiply by	9.24	Result
CLASS LABS	Total student FTE	multiply by	17	Result
RESEARCH LABS	3 Yr Avg Reseach divided by \$1 million	multiply by	6,244	Result
<u>STUDY FACILITIES</u>				
Part 1 - Stack space	Total bound volumes	multiply by	0.08	Result
Part 2 - Study space	Total student FTE multiplied by 0.30	multiply by	30	Result
Part 3 - Tech space	Part 1 Result plus Part 2 Result	multiply by	0.20	Result
Part 4 - Media services	Total student FTE minus 10,000 multiplied by 0.20	plus	10,000	Result
		Total		Result

10 Year Need Predictors

- Calculated using same drivers as current need calculation
- FTE projected for 10 years based on the state demographer's population projections that have been applied to each institution based on geographic service area.

Office Space

- Office space need calculation omitted from assignable space summary report.
- Original office space need calculated using 150*faculty FTE and 130*graduate student FTE.
- Oversimplification of calculation created results that didn't appear to be reliable.
- Working group examined office space need calculations of peer institutions – found a wide variety of calculation methods.

Key Inventory and Utilization Reports

- **System Wide Reports**
 - Assignable Spaces Summary
 - Utilization Report
 - Low Room Use Exception Reports (Classrooms & Class Labs)
- **Institutional Level Reports**
 - Assignable Spaces Summary – by Institution
 - Utilization Report, Institutional Level
 - Low Room Use Exception Summary Reports (Classrooms & Class Labs)
 - Percent of Classrooms and Class Labs in use

Modifying the Space Study Process

Summary of Board of Regent Deliverables and
Recommendations by the Space Study Working Groups

9/6/2012

NSHE

Board of Regents, Investment and Facilities Committee

Space Study Working Group
Summary of Board of Regent Deliverables and Recommendations by Working Groups

1. *Both the Inventory Report and the Utilization Report must be revised using internal resources, without external consulting fees.*

Additional comments related to Internal Audit Findings: None.

Additional recommendations provided by the Technical Review Committee: None.

Space Study Working Group Recommendation:

The working group recommends revising the space reports without the use of external resources that would result in additional expenses being incurred by the NSHE's institutions.

Background: During its September 2009 meeting, the Board of Regents approved the suspension of the existing space reporting process that would have been produced in the fall of 2009 to support the 2011 capital budget cycle, and directed the System Administration Office to establish a working group tasked with modifying the Space Inventory and Utilization Reports for use during the 2013 capital budget cycle. The approach gave voice to the space reporting concerns voiced by the Board and NSHE's institutional presidents, and supported the findings of the Internal Audit Division identified during a recent analysis of space utilization practices.

On September 11, 2009, the Space Study Technical Review Committee, composed of Mike Reed, Jane Nichols, and Sandi Cardinal, announced the creation of the Space Study Working Group. The working group was tasked with bringing together innovative space reporting practices used by NSHE and institutions across the nation with the goal of recommending to the Board credible, auditable, and meaningful space reports that will be used to support the capital budgeting and planning cycles in the future.

The composition of the Space Study Working Group follows:

- Anthony Vaughn, UNLV
- Steve Mischissin, UNR – through June 2010
- Gary Bishop, UNR – joined November 2009
- Peter Ross, DRI
- Annie Macias, NSC
- Sherri Payne, CSN
- Delores Sanford, TMCC
- Connie Capurro, WNC – through June 2010, replaced by Daniel Neverett
- Sonja Sibert, GBC
- Ginny Wiswell, System Administration, Finance

The group met monthly through June 2010 to establish the policy framework and conceptual designs for the new space reports. To bring the policy framework and conceptual designs for the new reports into reality, in June 2010 the working group established a Technology and Implementation Subcommittee. The subcommittee will report its activities to the working group and commence work in August 2010, subject to the approval of the working group's final recommendations by the Board of Regents at its September 2010 meeting.

Space Study Working Group
Summary of Board of Regent Deliverables and Recommendations by Working Groups

The composition of the Technology and Implementation Subcommittee follows:

- Jennifer McCarthy & Raelynn Lee, UNLV
- Jed Hammer & Gary Bishop, UNR
- Brian Chongtai, NSC
- Brian Bourgon, CSN
- Stephen Zideck, TMCC
- Jose Martinez & Susan Riggs, WNC
- Mark Fraga & Sonja Sibert, GBC
- Peter Ross, DRI
- Victoria Kazez & Ginger Holladay-Houston, System Computing Services
- Renee Davis & Sharon Wurm, System Administration Office, Academic Affairs
- Scott Anderson, System Administration Office, Internal Audit
- Vic Redding & Ginny Wiswell, System Administration Office, Finance

Implementation Action Plan: The Subcommittee met from August 2010 through December 2011 to finalize the data elements consistent with PeopleSoft requirements, develop data templates for transmitting information to the data warehouse, establish the data warehouse and data table, develop standardized queries, standardize report calculations, determine data testing methodologies, and validate report output. The Subcommittee worked closely with representatives from the Space Study Working Group, PeopleSoft, and System Computing Services to ensure the new space reports were consistent with the direction provided by the Board of Regents. Implementation action plans were published following each meeting, and distributed to both the Working Group and Subcommittee members. A copy of the summary comments prepared by the subcommittee follows this section of this document. The implementation action plans communicated the following major elements:

- Implementation deliverables
- Areas of responsibility
- Timetables
- Report testing methodology
- User documentation
- Recommendations to the *Procedures and Guidelines Manual*

To encourage additional institutional review of the new space reports, preliminary fall 2011 space reports were issued to the Business Officers Council during the spring of 2012. The final fall 2011 space reports are expected to be presented to the Investment and Facilities Committee of the Board of Regents in September of 2012.

Space Study Working Group
Summary of Board of Regent Deliverables and Recommendations by Working Groups

2. *Both the Inventory Report and the Utilization Report must be credible, understandable, and provide meaningful information for the Chancellor, the Board, and the Presidents to make decisions about space planning.*

Additional comments related to Internal Audit Findings: Utilization Report, General Observations – Based on conversation with Internal Audit Staff, it was noted that the institutions for whom an audit was conducted, used a variety of methods to obtain the data required to be collected, which resulted in inconsistencies in the information reported. The number and complexity of the variables tracked may not lead to securing the most meaningful results. Although only two institutions (WNC and NSC) were evaluated during the audit of space utilization, consideration should be given to streamlining the number of variables and automating data collection processes.

Additional recommendations provided by the Technical Review Committee: None.

Space Study Working Group Recommendation:

Based on the direction of the Investment and Facilities Committee at its March 2010 meeting, the working group recommends simplifying the new reports by standardizing and automating the data collection and report production processes.

Background: The new reports will be produced using fall 2011 data. As proposed by the working group, major components of the new standardized and automated reports are described below. Samples of the Fall 2011 report designs are provided for further reference.

Major Components of the new Space Inventory Report –

- Current Inventory – The new report will retain reporting the current inventory of all spaces owned and leased by NSHE institutions, and will include the addition of medical and dental facilities which were excluded from the previous reporting methodology. The report will continue to use the room inventory classification standards contained in the *Post Secondary Education Facilities Inventory and Classification Manual (FICM)*.
- Space Predictors – The new report will reduce the number of predictors to the top five classifications of space associated with supporting the academic and research missions of NSHE institutions; space needs will be predicted for classroom, class labs, faculty offices, research facilities, space, and study spaces for the current reporting period and 10 years forward (see Deliverable 10).
- Qualitative “Exception Report” – As a component of the new Inventory Report, “net surplus” space (i.e. total space less the calculated need for space) will be quantified to allow institutions to clarify the extent to which surplus spaces may be targeted for renovation or reconfiguration.

Space Study Working Group
Summary of Board of Regent Deliverables and Recommendations by Working Groups

Major Components of the new Space Utilization Report –

- Room Use and Capacity – The new report will retain the core space-use elements associated with classrooms and class labs scheduled for instructional use, which include (1) the average number of hours rooms are in use with instructional activity, (2) the percent of student stations filled when each room is in use for instruction, (3) the days of the week the space is used, and (4) the time of day the space is used.
- Absolute Numbers – The new report will provide utilization results in absolute numbers, and will abandon the current methodology that reports utilization results as a percentage of compliance with an established, arbitrary standard.
- Full Spectrum of Time – The new report will provide a snapshot of the classrooms and class labs used for instructional purposes during a 98-hour week (i.e. 8am until 10pm, seven days of the week).
- Non-traditional Courses, Medical Facilities, and Hybrid Classes – The new report will include the room use and capacity associated with the non-traditional, short-term, modular, continuing education, and industry-sponsored courses offered by NSHE institutions, which were previously excluded from the current reporting methodology. Instructional use of medical and dental facilities, which were also excluded from the current reporting methodology, will be included in the new report. Independent study, web-based, or correspondence courses that require an in-classroom component, such as proctored testing, will also be included in the new report.
- Qualitative “Exception Report” – The new report will quantify low-use classrooms and class labs and clarify the issues associated with the low-use (see Deliverable 6 for report samples).

Space Study Working Group
Summary of Board of Regent Deliverables and Recommendations by Working Groups

3. *Both the Inventory Report and the Utilization Report must be auditable.*

Additional comments related to Internal Audit Findings:

- a. Reporting Guidelines, Standardize “Snapshot Dates” - revisit the “snapshot dates” for all institutions; standardize, and ensure that NSC is included in the parameters.
- b. Reporting Guidelines, FTE Associated with Dropped Enrollments - clarify whether students who drop classes but are still included in class enrollments should be reported for space utilization purposes.

Additional recommendations provided by the Technical Review Committee: None.

Space Study Working Group Recommendation:

The working group recommends producing the new Inventory and Utilization Reports through the shared data bases contained in the NSHE data warehouse.

The working group recommends the reporting and auditing guidelines developed for the new reports contain clear documentation of the methods by which data are collected, measured, and reported to ensure that the reports are auditable. With respect the ability to audit the data contained in the output for the new space studies, it should be noted that representatives from NSHE’s Internal Audit Division served on the Technical & Implementation Subcommittee of the space study. The representative served, not in the capacity of setting policy or procedure against which they would be responsible for auditing, but instead to perform process audits – validating the extent to which the data are correctly collected, the calculations are consistently applied, and the results are auditable to the prepared source documents. The process audit revealed only minor inconsistencies in matters associated with the comparisons of the source data, all of which have been corrected.

The working group recommends that all NSHE institutions transmit the space inventory reflective of spaces owned and leased for exclusive use as of November 1st in odd numbered years. Previous inventory files provided by the institutions will be retained in the data warehouse for comparison purposes and archived indefinitely. Drivers used to predict the need for new academic spaces will be generated by System Administration using published, auditable sources. The Inventory Report and Space Prediction Report will be provided to the Board of Regents during the spring meeting of even-numbered years to coincide with the initial review of the biennial capital improvement program request.

The working group recommends census date published by each university in odd-numbered years as the standard “snapshot” date for the institutions to generate their utilization query. The census date for the shared-instance institutions (meaning all colleges) is set at October 15th as the standard “snapshot” date for System Administration to generate the utilization queries on behalf of each of the college institutions. The

Space Study Working Group
Summary of Board of Regent Deliverables and Recommendations by Working Groups

space use captured by the utilization queries is transmitted to the data warehouse for processing according to the standardized report calculations. The working group recommends the Board of Regents receive the results of this effort during the spring meeting of even-numbered years to coincide with the initial review of the biennial capital improvement program request. Prior reports will be retained in the data warehouse and archived indefinitely for comparison purposes.

Background: With the implementation of the new PeopleSoft system, the working group concluded that establishing the “snapshot” date for generating the new space reports to coincide with the “census date” established for each institution will reduce inconsistencies in the output between the two new space reports. The groups recognize that the “census dates” for the two universities are not identical to each other, although the “census dates” for the five “shared instance” institutions (meaning, all of the colleges) are consistently set for October 15th.

Enrollment, occupancy, room use, inventory data will be captured, reported, and audited in accordance with the established “census dates.” The groups recognize that enrollments and room use data often change as an outcome of students adding or dropping courses after the established “census dates” and any changes to the data subsequent to the “snapshot” should not be considered for reporting or auditing purposes.

Space Study Working Group
Summary of Board of Regent Deliverables and Recommendations by Working Groups

4. *Both the Inventory Report and the Utilization Report must consider innovative space reporting and scheduling practices used by NSHE and other entities.*

Additional comments related to Internal Audit Findings: None.

Additional recommendations provided by the Technical Review Committee: None.

Space Study Working Group Recommendation:

The working group recommends incorporating innovative space management and scheduling practices used by NSHE and peer institutions of higher education into the new Inventory and Utilization Reports.

Background: The working group evaluated whether the academic space models used by institutions of higher education should be abandoned in favor of the commercial-style benchmarking methods, such as those used by the Building Owners and Managers Association (BOMA). The working group concluded that the academic benchmarks should be retained, since these benchmarks are representative of the unique operations of higher education, and will continue to allow consistency in comparing results with other peer institutions.

The working group evaluated “best practices” in academic space management and reporting models for institutions of higher education in the following states: Arizona, California, Colorado, Florida, Illinois, Indiana, Kentucky, Minnesota, Pennsylvania, North Carolina, Texas, Utah, and Washington. In addition, the working group reviewed publications issued by the National Center for Education Statistics in order to confirm standardized facilities descriptions, coding methods, and to obtain guidance concerning national trends associated with the progression of academic libraries toward increased automation. The working group concluded that the guiding principles used to construct the new reporting models are, in the main, consistent with national peers in terms of baseline data reported.

A summary of key findings is included on the following table.

**NSHE Space Study Working Group
Best Practices Summary**

Utilization Reporting		NSHE Existing	NSHE New	AZ	CA	CO	FL	IL	IN	KY	MN	PA	NC	TX	UT	WA
1	Day use expectation standard established and reported for classrooms = 30 hours with 60 percent occupancy	x			x	x					x		x	x	x	
2	Day use expectation standard established for class labs = 20 hours with 80 percent occupancy	x			x	x					x		x	x	x	
3	Data reported reflects full spectrum of time where space is available for scheduling purposes (98 hour week)		x													
4	Data reported in absolute terms - not a percent of standard		x		x									x	x	
5	Short-term, modular courses included in utilization report		x												x	
6	Assumes reduced core work space needs for alternative instruction delivery methods (on-line)		x												x	
7	Includes use of classrooms and class labs scheduled by medical and/or dental schools		x	x	x									x		
8	National standard (<i>FICM</i>) used as basis to categorize room type by use	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
9	Baseline reporting includes hours number of hours academic spaces are used and the percent filled when in use	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
10	Report output uses PeopleSoft templates		x	x	x											
11	Identification of national benchmarks from peer institutions		x								x				x	

**NSHE Space Study Working Group
Best Practices Summary**

Inventory Reporting		NSHE Existing	NSHE New	AZ	CA	CO	FL	IL	IN	KY	MN	PA	NC	TX	UT	WA
1	Model accounts for anticipated migration to automated library services (less stack space, more study & tech spaces)		x												x	
2	Space predictor model focuses on academic predictors for classrooms, labs, research, faculty office, and library		x		x									x		
3	Inventory model subtracts surpluses from predicted need; estimates capital renovation costs to convert space		x												x	
4	Inventory model includes medical and dental facilities		x	x	x						x			x	x	
5	National standard (<i>FICM</i>) used to categorize and report inventory of space	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
6	Automated exceptions report created for space utilization not meeting identified standard		x								x					
7	Identification of a specific annual date for obtaining inventory data		x											x	x	
8	Model includes use of a single database from which to develop the report data		x								x				x	
9	Identification and application of specific data elements for reporting		x		x						x				x	

Space Study Working Group

Summary of Board of Regent Deliverables and Recommendations by Working Groups

5. *The Utilization Report must eliminate dependence on the artificial standards that reduce the expectation for full occupancy.*

Additional comments related to Internal Audit Findings: Space Utilization Reporting Guidelines, Utilization Standards - Revisit target utilization formulas that reduce the expectation for full occupancy in scheduling classrooms and lab spaces; determine applicability for reporting space utilization in absolute terms.

Additional recommendations provided by the Technical Review Committee: None.

Space Study Working Group Recommendation:

The working group recommends abandoning the reporting of space use and occupancy as a percentage of compliance with the current NSHE standard (defined as, classroom scheduled for 67 percent of available time, with 60 percent occupancy of the available student stations; laboratories scheduled for 44 percent of the available time, with 80 percent occupancy of the student stations).

Instead, the working group recommends reporting in absolute numbers the hours of use and occupancy for academic spaces included in the new Utilization Report. The new report will identify the number of rooms available for scheduling, the maximum number of student stations available in each room, the actual number of rooms used during the reporting period, and the percent of stations occupied during the reporting period.

The working group recommends generating a supplement to the Utilization Report to display in graphical terms the representative usage by time of day for each day of the week.

In abandoning the reporting of percentage compliance to the use and occupancy standards in favor of reporting in absolute numbers, the working group recommends the System-level report of space use and occupancy include, for comparison purposes, up to three of the most current national benchmarks from peer higher education Systems to provide an assessment of the extent to which NSHE, as a System, is meeting reasonable expectations for use and occupancy.

Background: The working group concurs with the Board's direction to report in absolute numbers the use and occupancy of academic spaces. Abandoning the practice is intended to simplify report output and eliminate any unintended confusion about the extent to which academic spaces are used. The working group acknowledges that 100 percent room use and station occupancy of academic classrooms and class labs represents an unachievable goal for the institutions of higher education. In evaluating "best practices" in space use and occupancy for peer institutions of higher education, the working group identified the standard academic space use in the range of 60 percent for classroom and 40 percent for class labs, and the standard academic space occupancy in the range of 60 percent for classrooms and 80 percent for class labs. In all cases, the space use results were represented as a percentage of compliance to the standard, and not reported in absolute terms. As a result of this condition, the working group's recommendation to include peer institution benchmarks for comparison to NSHE's results is appropriate. National target utilization rates follows.

TARGET UTILIZATION RATES BY STATE as/of 8-3-10

INSTITUTION/STATE (1)	Classrooms		Class Labs		NOTES/COMMENTS
	RM HRS/WK	PCT FILL	RM HRS/WK	PCT FILL	
Alaska: CC's and University	30.0	60.0	20.0	80.0	
Arizona: University	35.0	65.0	25.0	85.0	
California: CC's CSU and UC	42.0	71.4	27.0	80.0	
Colorado	30.0	67.0	20.0	80.0	
Florida: University	40.0	60.0	20.0	80.0	
CC Under 2,500 Enrolled	58.5	55.0	21.0	80.0	
CC Over 2,500 Enrolled	58.5	60.0	24.0	80.0	
Kansas	30.0	60.0	20.0	80.0	
Kentucky	38.0	67.0	23.0	80.0	
Louisiana	30.0	60.0	20.0	80.0	
Maryland: CC's Under 1,000 FTE Enrolled	30.0	60.0	20.0	75.0	
CC's 1,000-2,499 FTE Enrolled	31.0	62.5	21.0	80.0	
CC's 1,500-4,999 FTE Enrolled	32.0	62.5	22.0	80.0	
CC's Over 5,000 FTE Enrolled	33.0	65.0	23.0	80.0	
Univ Under 3,000 FTE Enrolled	30.0	60.0	21.0	79.0	
Univ 3,000-6,000 FTE Enrolled	30.0	65.0	21.0	79.0	
Univ Over 6,000 FTE Enrolled	30.0	70.0	21.0	79.0	
Nebraska	30.0	65.0	20.0	65.0	
Nevada (2)	30.0	60.0	20.0	80.0	
New Hampshire	30.0	60.0	18.0	70.0	
New York	30.0	80.0	22.0	75.0	
North Carolina	35.0	65.0	20.0	75.0	
Ohio: Technical	31.5	67.0	n/a	n/a	
Community Colleges	31.5	67.0	n/a	n/a	
University	31.5	67.0	22.5	80.0	
Oklahoma: Less Than 1,000 Enrollment	27.0	40.0	24.0	80.0	
1,000-2,999 Enrollment	28.5	40.0	24.0	80.0	
3,000 or More Enrollment	30.0	40.0	24.0	80.0	
Oregon	33.0	60.0	16.0	75.0	
Penn: CC's - Number of Rooms					
10-25	32.0	75.0	26.0	80.0	
26-45	36.0	67.0	26.0	80.0	
46-70	36.0	67.0	26.0	80.0	
71-125	30.0	75.0	26.0	80.0	
126-Over	23.0	80.0	26.0	80.0	
South Carolina	35.0	60.0	16.0	75.0	
South Dakota: Univ AA's	32.0	65.0	18.0	80.0	
Univ BA & Masters	30.0	60.0	20.0	85.0	
Doctoral	28.0	55.0	16.0	75.0	
Tennessee	30.0	67.0	18.0	80.0	
Texas	38.0	67.0	25.0	80.0	
Utah	34.0	67.0	22.5	80.0	
Virginia	n/a	n/a	n/a	n/a	
Washington	20.0	60.0	20.0	80.0	
Wisconsin	30.0	67.0	24.0	80.0	
Wyoming	33.0	60.0	20.0	76.0	
Footnotes:					
(1) All states except Nevada currently consider utilization targets on the basis of their "Best 45" hours of the week.					
(2) Nevada currently considers utilization targets on the basis of a 98 hour week, (M-S 8a-10p) which translates to a total weekly hour usage expectation of 65.3 hours/week for Classrooms and 32.7 hours/week for Class Laboratories.					
(30 hours/week M-F, 8a-5p + 35.3 hours/week M-F, 5p-10pm, Saturday and Sunday for Classrooms, and 20 hours/week M-F, 8a-5p + 12.7 hours/week M-F, 5p-10p, Saturday and Sunday for Class Laboratories)					
Sources: MGT of America report "Space Standards for Selected States Higher Education Systems", 1999					
California Postsecondary Education Commission Report 90-3, "A Capacity for Learning", 2004					

Space Study Working Group
Summary of Board of Regent Deliverables and Recommendations by Working Groups

6. *Utilization Report must redefine full capacity (see Deliverable 5) and recognize the full spectrum of time in which space is available for use, and include capacity triggers based on demand analysis methods applied to predict the need for new space.*

Additional comments related to Internal Audit Findings:

- a. Reporting Guidelines, Course Time Basis - clarify basis for calculating course minutes in excess of the standard 50 minute course, including instances where rounding might be appropriate.*
- b. Report Reconciliation - The daily student contact hour report data is not consistent with the data reported on the instructional space report. Suggest verification of data.*
- c. Daily Student Contact Hour Report – Internal Audit calculations differed from the institutional calculations. Suggest verification of contact hours to eliminate discrepancies.*

Additional recommendations provided by the Technical Review Committee: None.

Space Study Working Group Recommendation:

The working group recommends a 98 hour week (defined as, 8:00am through 10:00pm, for all seven days of the week) as the standard for the Utilization Report.

The working group recommends retaining the standard 50 minutes of instruction when calculating a “contact hour.” The Daily Student Contact Hour (or, DSCH) report is to be calculated in the following manner: determine the number of minutes the class meets each day, and divide by 50, the number of minutes in a class hour. To ensure consistency in reporting contact hours, fractions of minutes greater than ½ hour are rounded upward, and fractions of minutes less than ½ hour are rounded downward. The total Student Contact Hours (SCH) are determined by multiplying the DSCH by the number of day per week that the class meets and the number of students enrolled in the class.

The working group recommends generating a standardized qualitative “exception report” to provide additional context about low- use classrooms and class labs.

Background: Space utilization “best practices” in Texas and North Carolina reveal that, while academic classroom and class labs are available for scheduling seven days a week for up to 14 hours per day, the utilization reporting model is based on the expectation of the institution’s usage during its “best 45 hour week.” The working group did not support the methodology for selecting peak usage for institutions, and instead recommended the new Utilization Report recognize the full spectrum of time available for institutions to schedule academic spaces for instructional purposes. As a result, the revised Utilization Report will include room use and occupancy Monday through Sunday, from 8am through 10pm, seven days a week, for a total of 98 hours of weekly availability.

Space Study Working Group
Summary of Board of Regent Deliverables and Recommendations by Working Groups

In clarifying the course time basis, the working group advises the Board of hearings that commenced mid-June 2010 in the U. S. House Committee on Education and Labor concerning a U. S. Department of Education proposal to set “more explicit standards for a credit hour.” The standard of a credit hour, which is not actually a full 60 minutes in duration, is deeply embedded in higher education as a benchmark for earning a degree, and the definition has become muddled in recent years with the increase of on-line instruction methods. The U. S. Education Department is currently seeking to bring clarity to this issue with its proposal to define the credit hour as one hour of classroom instruction and two hours of student work outside the classroom over 15 weeks for a semester and 10 weeks for a quarter system. It is expected that institutions and accreditation entities would have some flexibility under the proposal to develop alternative measures. The working group will monitor these developments and advise the Board of changes to the standard that may affect the space reporting drivers.

The working group acknowledges the subjective nature of reporting the conditions of buildings that affect the use of space, and expressed concern about the inherent difficulty in auditing subjective room use data. Further, the working group also acknowledges that low demand room use may not exclusively be the consequence of room conditions. As a result, in order to account for the factors that influence low usage of rooms, and to support the requirement that the result of the analysis must be auditable, the working group’s recommendation for establishing an automated component to the qualitative “exception report” is necessary to provide additional context to the matter of low usage in classroom and class labs.

These “exception reports” will be generated on the established “snapshot” date as a subset of the Utilization Report. The report will include a list by institution of every classroom for which the space is used less than 12 hours per week, and class labs for which the space is used less than 6 hours per week.

In addition, the automated “exception report” will generate a single-page input form for each room identified on the aggregate list, allowing NSHE institutions to provide the rationale for the low usage. The automated input must be completed by the institutions by November 15th of odd numbered years, and the summarized rationale will be produced in an automated report on December 1st of odd numbered years.

The “exception report” institutional data input response template and the Fall 2011 standardized sample reports follow.

Low Room Use - Exception Response Form

Reporting Period: _____

Classrooms = Utilization less than 12 hours/week

Class Labs = Utilization less than 6 hours/week

Institution: _____

Campus/Location: _____

Building Name: _____

Room number: _____

Low Utilization Rational (check one, PRIMARY reason for low room use):

- Remote physical location – physical location equal to or greater than one mile from center of institution
- Specialized nature of room restricts use for other purposes
- Poor room quality
- No/low technology available
- Other, describe:

(Optional) Institutional Comments Concerning this Room :

Prepared by: _____

Title: _____

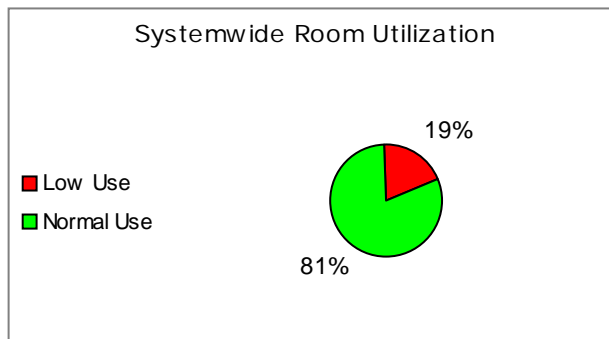
Date Prepared: _____

**Nevada System of Higher Education
Instructional Space Utilization Report
LOW ROOM USE^[1] EXCEPTION SUMMARY REPORT
Fall 2011 / FY 2012
NSHE Systemwide**

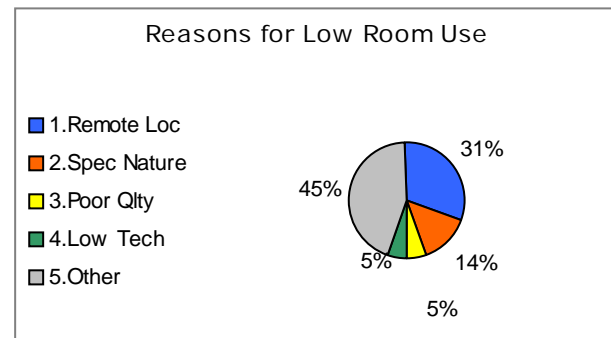
REASONS FOR LOW ROOM USE

SPACE USE CODE / INSTITUTION	TOTAL NUMBER OF ROOMS	NUMBER OF LOW USE ROOMS	PERCENT OF TOTAL ROOMS		REMOTE LOCATION	SPECIAL NATURE OF ROOM	POOR ROOM QUALITY	LOW/NO TECHNOLOGY	OTHER
CSN01 - College of Southern Nevada	284	78	27%		20	6	4	0	48
GBC01 - Great Basin College	74	20	27%		11	5	0	1	3
NSC01 - Nevada State College	22	4	18%		3	1	0	0	0
TMCC1 - Truckee Meadows Community College	78	16	21%		2	3	1	0	10
UNLV1 - University of Nevada Las Vegas	196	6	3%		0	4	0	2	0
UNR01 - University of Nevada Reno	143	20	14%		13	0	0	6	1
WNC01 - Western Nevada College	61	23	38%		2	4	3	0	14
TOTAL:	858	167	19%		51	23	8	9	76

110 - CLASSROOMS



CLASSROOMS



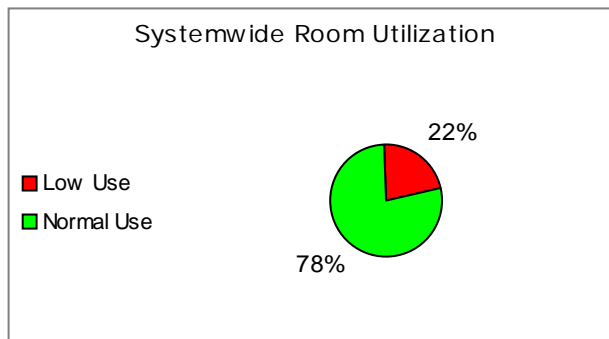
[1] 110-Class Rooms low room use = utilization less than 12 hours / week. 210-Class Labs low room use = utilization less than 6 hours / week.

**Nevada System of Higher Education
Instructional Space Utilization Report
LOW ROOM USE^[1] EXCEPTION SUMMARY REPORT
Fall 2011 / FY 2012
NSHE Systemwide**

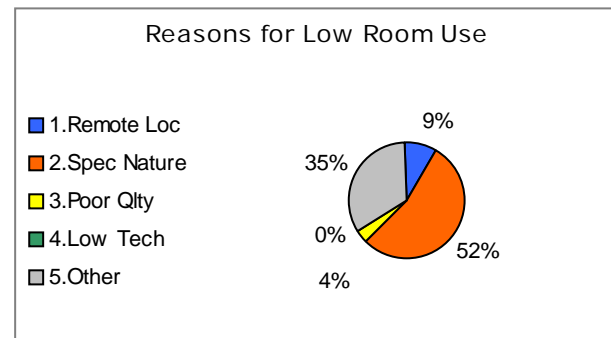
REASONS FOR LOW ROOM USE

SPACE USE CODE / INSTITUTION	TOTAL NUMBER OF ROOMS	NUMBER OF LOW USE ROOMS	PERCENT OF TOTAL ROOMS		REMOTE LOCATION	SPECIAL NATURE OF ROOM	POOR ROOM QUALITY	LOW/NO TECHNOLOGY	OTHER
CSN01 - College of Southern Nevada	206	52	25%		10	15	1	0	26
GBC01 - Great Basin College	41	12	29%		2	4	2	0	4
NSC01 - Nevada State College	6	0	n/a		0	0	0	0	0
TMCC1 - Truckee Meadows Community College	79	33	42%		0	24	0	0	9
UNLV1 - University of Nevada Las Vegas	118	11	9%		0	6	1	0	4
UNR01 - University of Nevada Reno	90	13	14%		0	13	0	0	0
WNC01 - Western Nevada College	42	9	21%		0	6	1	0	2
TOTAL:	582	130	22%		12	68	5	0	45

210 - CLASSLABS



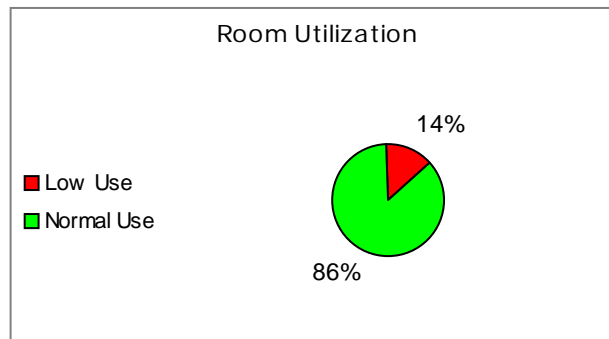
CLASSLABS



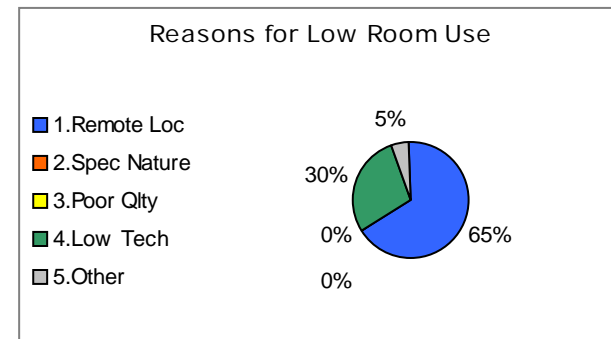
[1] 110-Class Rooms low room use = utilization less than 12 hours / week. 210-Class Labs low room use = utilization less than 6 hours / week.

Nevada System of Higher Education
 Instructional Space Utilization Report
 LOW ROOM USE^[1] EXCEPTION SUMMARY REPORT
 Fall 2011 / FY 2012
 University of Nevada Reno

SPACE USE CODE / CAMPUS	TOTAL NUMBER OF ROOMS	NUMBER OF LOW USE ROOMS	PERCENT OF TOTAL ROOMS	REASONS FOR LOW ROOM USE				
				REMOTE LOCATION	SPECIAL NATURE OF ROOM	POOR ROOM QUALITY	LOW/NO TECHNOLOGY	OTHER
110 - CLASSROOMS								
010 - Main Campus	118	5	4%	0	0	0	5	0
021 - Redfield Campus - UNR	11	11	100%	11	0	0	0	0
080 - School of Medicine - Main Campus Reno	8	2	25%	0	0	0	1	1
090 - FSA - Carlin	6	2	33%	2	0	0	0	0
TOTAL:	143	20	14%	13	0	0	6	1



CLASSROOMS

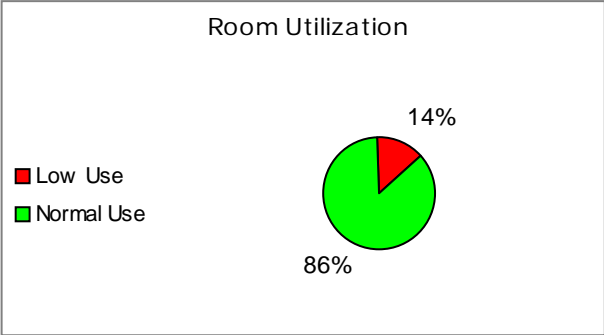


[1] 110-Class Rooms low room use = utilization less than 12 hours / week. 210-Class Labs low room use = utilization less than 6 hours / week.

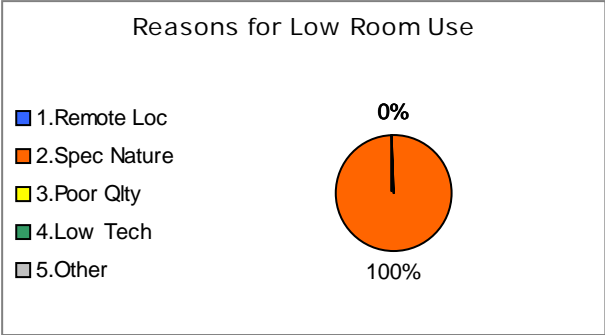
Nevada System of Higher Education
 Instructional Space Utilization Report
 LOW ROOM USE^[1] EXCEPTION SUMMARY REPORT

Fall 2011 / FY 2012
 University of Nevada Reno

SPACE USE CODE / CAMPUS	TOTAL NUMBER OF ROOMS	NUMBER OF LOW USE ROOMS	PERCENT OF TOTAL ROOMS	REASONS FOR LOW ROOM USE				
				REMOTE LOCATION	SPECIAL NATURE OF ROOM	POOR ROOM QUALITY	LOW/NO TECHNOLOGY	OTHER
210 - CLASSLABS								
010 - Main Campus	90	13	14%	0	13	0	0	0
TOTAL:	90	13	14%	0	13	0	0	0



CLASSLABS



[1] 110-Class Rooms low room use = utilization less than 12 hours / week. 210-Class Labs low room use = utilization less than 6 hours / week.

**Nevada System of Higher Education
Instructional Utilization Report
LOW ROOM USE^[1] EXCEPTION REPORT (CLASSLABS)**

**Fall 2011 / FY 2012
University of Nevada Reno**

CAMPUS	BUILDING CODE	BUILDING NAME	ROOM	AREA	STNS	CLASS	ENRL	AVCL	WKRH	AVRH	OCC%
Main Campus	AB	ANSARI BUSINESS BUILDING	0508	387.00	18	1	8	8.00	3.3	3.30	44%
Main Campus	CFA	CHURCH FINE ARTS	0016	513.00	18	1	5	5.00	3.0	3.00	28%
Main Campus	CFA	CHURCH FINE ARTS	0020	912.00	20	1	15	15.00	3.0	3.00	75%
Main Campus	DMS	DAVIDSON MATH AND SCIENCE	0201	862.00	24	1	16	16.00	3.6	3.60	67%
Main Campus	EJCH	EDMUND J CAIN HALL	0200I	375.00	18	1	1	1.00	2.2	2.20	6%
Main Campus	FA	FLEISCHMANN AGRICULTURE	0136	765.00	20	1	16	16.00	3.0	3.00	80%
Main Campus	LME	LAXALT MINERAL ENGINEERING	0218	1,633.00	25	1	16	16.00	3.3	3.30	64%
Main Campus	LMR	LAXALT MINERAL RESEARCH	0351	856.00	24	1	6	6.00	3.6	3.60	25%
Main Campus	LRC	LOMBARDI RECREATION CENTER	0105C	1,151.00	35	2	44	22.00	4.8	4.80	63%
Main Campus	MS	MACKAY SCIENCE	0221	688.00	20	1	15	15.00	1.5	1.50	75%
Main Campus	SEM	SCRUGHAM ENGINEERING AND M	0117	1,170.00	18	1	15	15.00	3.6	3.60	83%
Main Campus	SEM	SCRUGHAM ENGINEERING AND M	0231B	1,361.00	24	3	31	10.33	5.4	5.40	43%
Main Campus	WRB	WILLIAM J RAGGIO BLDG (COE)	4118	896.00	47	1	17	17.00	3.6	3.60	36%
TOTAL:	13										
GRAND TOTAL:	13										

[1] Class Labs low room use = utilization less than 6 hours / week.

Nevada System of Higher Education
Instructional Utilization Report
LOW ROOM USE^[1] EXCEPTION REASONS
Fall 2011 / FY 2012
University of Nevada Reno

CAMPUS CODE	BUILDING CODE	ROOM NUMBER	DEPTMNT CODE	WEEKLY ROOM HRS	REMOTE LOCATION	SPECIAL NATURE	POOR QUALITY	LOW/NO TECH	OTHER	EXPLANATION
CLASSROOMS - Room Use Code 110										
010	KRC	0105	NA	9.6	N	N	N	Y	N	
010	LME	0315	NA	11.0	N	N	N	Y	N	
010	MSS	0241	NA	6.7	N	N	N	Y	N	
010	SEM	0344	NA	10.0	N	N	N	Y	N	
010	WRB	4051	NA	7.3	N	N	N	Y	N	
021	RC-A	0202	NA	0.0	Y	N	N	N	N	

[1] 110-Class Rooms low room use = utilization less than 12 hours / week. 210-Class Labs low room use = utilization less than 6 hours / week.

Nevada System of Higher Education
Instructional Utilization Report
LOW ROOM USE^[1] EXCEPTION REASONS
Fall 2011 / FY 2012
University of Nevada Reno

CAMPUS CODE	BUILDING CODE	ROOM NUMBER	DEPTMNT CODE	WEEKLY ROOM HRS	REMOTE LOCATION	SPECIAL NATURE	POOR QUALITY	LOW/NO TECH	OTHER	EXPLANATION
090	FACRB	0317	NA	9.5	Y	N	N	N	N	
090	FACRB	0335	NA	3.0	Y	N	N	N	N	
TOTAL CLASSROOMS:			20							
CLASSLABS - Room Use Code 210										
010	AB	0508	NA	3.3	N	Y	N	N	N	
010	CFA	0016	NA	3.0	N	Y	N	N	N	
010	CFA	0020	NA	3.0	N	Y	N	N	N	

[1] 110-Class Rooms low room use = utilization less than 12 hours / week. 210-Class Labs low room use = utilization less than 6 hours / week.

**Nevada System of Higher Education
Utilization Exception Report**

Fall 2011 / FY 2012

UNR01

REASON	BLDG	ROOM	ROOM USE	SUBJECT	CATLG #	COURSE	SECTION	CLASS TITLE	TIME OF CLASS	ENRL	SAT
BLDG INV	BTBA	RTBA		GEOL	100	107053	1201	Earthquakes, Volc, Nat	02:00pm - 05:00pm	16	
BLDG INV	BTBA	RTBA		NURS	434	110816	1001	Care in the Comm: Practic	08:30am - 04:00pm	7	
BLDG INV	BTBA	RTBA		NURS	318	110773	1006	Nsg Care Of Ind I: Practi	06:45am - 02:15pm	8	
BLDG INV	BTBA	RTBA		NURS	318	110773	1005	Nsg Care Of Ind I: Practi	06:45am - 02:15pm	8	
BLDG INV	BTBA	RTBA		NURS	318	110773	1004	Nsg Care Of Ind I: Practi	06:45am - 02:15pm	8	
BLDG INV	BTBA	RTBA		NURS	318	110773	1003	Nsg Care Of Ind I: Practi	06:45am - 02:15pm	8	
BLDG INV	BTBA	RTBA		NURS	318	110773	1002	Nsg Care Of Ind I: Practi	06:45am - 02:15pm	8	
BLDG INV	BTBA	RTBA		NURS	318	110773	1001	Nsg Care Of Ind I: Practi	06:45am - 02:15pm	8	
BLDG INV	BTBA	RTBA		HON	410	108169	1001	Area Study	12:00pm - 12:50pm	8	
BLDG INV	BTBA	RTBA		GEOL	723	107238	1101	Volcanic Geology	01:00pm - 03:50pm	9	
BLDG INV	BTBA	RTBA		NURS	434	110816	1002	Care in the Comm: Practic	08:30am - 04:00pm	8	
BLDG INV	BTBA	RTBA		GEOL	100	107053	1202	Earthquakes, Volc, Nat	02:00pm - 05:00pm	24	
BLDG INV	BTBA	RTBA		BIOL	450J	101547	1001	Sp Top: Microbiology	11:00am - 11:50am	11	
BLDG INV	BTBA	RTBA		GEOG	470	106925	5701	Geog Explorations	07:00am - 08:00pm	13	
BLDG INV	BTBA	RTBA		GE	483	106827	1101	Geol Engr Slope Sta	01:00pm - 03:45pm	16	
BLDG INV	BTBA	RTBA		EDSP	467	104681	1001	Teaching Mod-Severe Ret	05:00pm - 07:00pm	2	
BLDG INV	BTBA	RTBA		EDSP	667	104681	1001	Teaching Mod-Severe Ret	05:00pm - 07:00pm	6	
BLDG INV	BTBA	RTBA		EDES	313	104406	1001	Develop Pract/Seminar	09:00am - 03:00pm	20	
BLDG INV	BTBA	RTBA		EDES	313	104406	1001	Develop Pract/Seminar	09:00am - 03:00pm	20	
BLDG INV	BTBA	RTBA		EDES	313	104406	1001	Develop Pract/Seminar	09:00am - 03:00pm	20	
BLDG INV	BTBA	RTBA		EDES	313	104406	1001	Develop Pract/Seminar	09:00am - 03:00pm	20	
BLDG INV	BTBA	RTBA		AST	310	101117	1001	Astro Measures	02:30pm - 03:45pm	17	
BLDG INV	BTBA	RTBA		ENGR	100	114200	1001	Intro to Engineering Design	05:00pm - 05:50pm	434	

Space Study Working Group
Summary of Board of Regent Deliverables and Recommendations by Working Groups

7. *Utilization Report must recognize and account for the “in-classroom” component of on-line enrollments.*

Additional comments related to Internal Audit Findings: None.

Additional recommendations provided by the Technical Review Committee: Since on-line students mitigate the need for traditional academic space, the FTE enrollments associated with on-line instruction should be excluded from the calculations used to predict the need for new space in the Inventory Report.

Space Study Working Group Recommendation:

For the new Utilization Report, the working group recommends reporting student contact hours, room use, and occupancy associated with hybrid instruction (defined as, course work using an on-line delivery method, with an infrequently scheduled “in classroom” component often associated with proctored testing).

In scheduling rooms for instructional use, the working group recommends NSHE institutions include the technical level data elements associated with instructional modes in order to identify classrooms and class labs having electronic-assisted instruction and those that do not.

For the new Inventory Report, the working group recommends excluding student FTE enrollments associated with on-line, web-based instruction from the drivers used to predict the need for new academic space.

Background: The working group recognizes “in classroom” group-process and academic coaching represent an integral part of a student’s higher education experience. However, the flexibility afforded to a student via on-line instruction or through teleconferenced distance education is changing how space is planned, constructed, and used. The working group acknowledged room use would not be triggered for “non-classroom,” on-line instruction except for instances where proctored testing is required as a component of the course offering. As a result, the working group’s recommendation to include in the new Utilization Report only the “in classroom” component of instructional space use is appropriate. And, the group’s recommendation to exclude from the drivers for predicting space the FTE enrollments associated with instructional activities that do not generate the need for new space is also appropriate.

The working group recognized that “smart” classrooms used for interactive-video and distance education purposes require an initial, and subsequent significant capital investment. The working group’s recommendation to identify room use associated with electronic-assisted instruction delivery methods was consistent with a “best practice” standard implemented in Utah that acknowledged electronic-assisted instruction resulted in space need at 40 percent of that needed for full-service students. As a result, the working group’s recommendation to identify the academic room use and occupancy associated with mode of instruction is appropriate to assist the Board with understanding the extent to which academic rooms require “smart” technology.

Space Study Working Group
Summary of Board of Regent Deliverables and Recommendations by Working Groups

8. *Data collection for both the Inventory Report and the Utilization Report must, to the extent possible, be automated and use consistent, shared data bases.*

Additional comments related to Internal Audit Findings: Room Review – Rooms were not properly classified according to the use of the space in the Student Information System, resulting in discrepancies in the types of instructional spaces and the number of student stations that are reported.

Additional recommendations provided by the Technical Review Committee: None.

Space Study Working Group Recommendation:

The working group recommends generating the new Inventory and Utilization Reports from the shared data bases of the NSHE data warehouse according to the established standards and timelines.

The working group recommends retaining the standardized room codes and facilities definitions presented in the published *Post Secondary Education Facilities Inventory and Classification Manual (FICM)*, and as a result, the shared data bases will conform to the standards contained in the *Manual*.

The working group recommends the following common data elements for individual rooms be maintained by the NSHE institutions for the purpose of Inventory Reporting:

1. Institution Code	8. Floor
2. Institution Name	9. Assignable Square Feet
3. Campus Location Code	10. Room Use Code
4. Campus Name	11. Room Use Description
5. Building Code	12. Department Code
6. Building Name	13. Department Name
7. Room Number	14. Station Capacity

The working group recommends the following building data elements be maintained by the NSHE institutions for the purpose of Inventory Reporting:

1. Institution Code	9. Total Assignable Square Feet
2. Institution Name	10. Year Constructed
3. Campus Location Code	11. Original Construction Cost
4. Campus Name	12. Year of Renovation
5. Building Code	13. Replacement Cost
6. Building Name	14. Ownership Code
7. Total Gross Square Feet	15. Ownership Description
8. Total Useable Square Feet	

Space Study Working Group

Summary of Board of Regent Deliverables and Recommendations by Working Groups

Background: With respect to the automation of the new Inventory Report, the working group acknowledges that the existing inventory of owned and leased space resides on data bases created and maintained independently by each NSHE institutions. To accommodate the required automation of the Inventory Report, these independent data bases must be converted to a standardized format and with common data element categories, and transferred to the NSHE data warehouse for reporting purposes. The standardized data templates used for room and building data are attached for referenced, and are intended to be used by each institution as the standardized method for transmitting the space inventory information to the Data Warehouse for further processing.

The working group recognizes that the *Post Secondary Education Facilities Inventory and Classification Manual (FICM)* published by the U. S. Department of Education's National Center for Education Statistics represents the national standard reference for reporting facilities inventory and classifying space use. The working group's recommendation for shared data bases will be facilitated through the use of the standardized facilities inventory and classification codes contained in the *Manual*. The standardized facilities inventory and classification codes are included in the following tables.

Roll-up Report:	Facility Locations/Summary Line Items to be Reported:
Systemwide	UNR, UNLV, DRI, NSC, CSN, TMCC, WNC, GBC, System Administration
UNR	Main Campus, Stead Campus, School of Medicine LV, School of Medicine Reno, Redfield Campus, Great Basin Science Samples, Ag Experiment Stations (Statewide), Cooperative Extension Facilities (Statewide), System Residential Properties, Fire Science Academy
UNLV	Main Campus, Shadow Lane & School of Dental Medicine
DRI	Northern Campus, southern Campus, Colorado Site
NSC	Main Campus, Dawson Building, Downtown (Water Street)
CSN	West Charleston Campus, Desert Garden Center, Henderson Campus, Cheyenne Campus, Mesquite Campus, West Sahara Campus, PaloVerde/Summerlin High Tech Center, Boulder City Campus, Green Valley High Tech Center/ Caliente, Nellis, Overton/Logandale
TMCC	Dandini Campus, Meadowood Center, IGT Applied Technology Center (Edison Way) Redfield Performing Arts Center, Redfield High Tech Center
WNC	Carson City Main Campus, Douglas Campus, Fallon Campus
GBC	Elko Main Campus, Winnemucca Campus, Ely Campus, Pahrump High Tech Center
HSS	Currently - no active locations (SOM & Dental reported through UNR & UNLV, respectively)
System Administration	System Computing Services Data Center - North, System Computing Services Data Center - South, System Computing Services - Elko, System Administration Office - North, System Administration Office - South, University Press - Morrill Hall, University Press - Stead Facility

NSHE FACILITIES INVENTORY BUILDING TABLE

Institution Code	Campus Location Code	Campus Name	Building Code	Building Name	Total GSF	Total USF	Total ASF	Construction or Acquisition Year	Replacement Cost	Renovation Year	Ownership Code	Comments
Common to All Institutions (5 Characters)	Specific to Institution (10 Characters)	Common to All Institutions (50 Characters)	Specific to Institution (10 Characters)	(50 Characters)	Total GSF (99,999.99)	Total USF (99,999.99)	Total ASF (99,999.99)	(4 Characters)	Based on most recent construction or renovation (99,999,999)	Based on a renovation where 50% or more of the facility is affected (4 Characters)	O or L (1 Character)	Note - Provide relevant clarification, as necessary. Institutions are REQUIRED to include comments describing the rationale for reporting less than 100% of the Assignable Square Footage in an owned building (250 Characters)

NSHE FACILITIES INVENTORY ROOM TABLE

Institution Code	Campus Location Code	Campus Name	Building Code	Building Name	Room Number	Floor Number	Area SF	Room Use Code	Room Use Description	Department Code	Department Name	Station Capacity	Comments
Common to All Institutions (5 Characters)	Specific to Institution (10 Characters)	Common to All Institutions (50 Characters)	Specific to Institution (10 Characters)	Building Name (50 Characters)	Specific to Institution (10 Characters)	Floor Number (10 Characters)	Area SF (99,999.99)	FICM - predominate use of space (4 Characters)	FICM - predominate use of space (20 Characters)	Assign room to Department or Administration/ Academic VP - unless room code begins with alpha (8 Characters)	Department Name (50 Characters)	Applies only to spaces that can be scheduled for instructional use; Maximum capacity quantified by actual number of fixed or moveable seats or student stations (999,999)	Provide relevant clarification (250 Characters)

Valid Institution Code - Common to all Institutions	Institution Description
CSN01	College of Southern Nevada
GBC01	Great Basin College
NSC01	Nevada State College
TMCC1	Truckee Meadows Community College
WNC01	Western Nevada College
UNLV1	University of Nevada Las Vegas
UNR01	University of Nevada Reno
NSHE	NSHE Systemwide
HSS	Health Science System
DRI	Desert Research Institute
SA	System Administration

Valid Code	Ownership Type	Definition
O	Owned	Space is owned, and fully under the control/management of the institution; space may be leased to another entity, such as a food vendor.
L	Leased	Space is rented to (or made available to) the institution from another entity, and the institution retains exclusive use of the space during the contractual period.

FICM			
Code	FICM Description	NSHE Rollup Category	Comments
110	Classroom	Classrooms	
115	Classroom Service	Classrooms	
210	Class Laboratory	Class Labs	
215	Class Laboratoy Service	Class Labs	
220	Open Laboratory	Class Labs	
225	Open Laboratory Service	Class Labs	
250	Research/Nonclass Laboratory	Research Labs	
255	Research/Nonclass Laboratory Service	Research Labs	
310	Office	Offices	
315	Office Service	Offices	
350	Conference Room	Conference Rooms	
355	Conference Room Service	Conference Rooms	
410	Study Room	Study Facilities	Includes open, non-discipline-specific computer labs that are <u>not</u> part of a library
411	Study Room	Study Facilities	Includes open, non-discipline-specific computer labs that <u>are</u> part of a library
455	Study Service	Study Facilities	
420	Stack Space	Study Facilities	
430	Open Stack Study Room	Study Facilities	
530	Media Production	Study Facilities	
535	Media Production Service	Study Facilities	
520	Athletic or Physical Education	Athletics	
523	Athletic Facilities Spectator Seating	Athletics	
525	Athletic or Physical Education Service	Athletics	
610	Assembly	General Use	
615	Assembly Service	General Use	
620	Exhibition	General Use	
625	Exhibition Service	General Use	
630	Food Facility	General Use	
635	Food Facility Service	General Use	
650	Lounge	General Use	
655	Lounge Service	General Use	
660	Merchandising	General Use	
665	Merchandising	General Use	
670	Recreation	General Use	
675	Recreation Service	General Use	
680	Meeting Room	Conference Rooms	
685	Meeting Room Service	Conference Rooms	
710	Central Computer/Telecommunications	Support Facilities	

715	Central Computer/Telecomm. Services	Support Facilities	
720	Shop	Support Facilities	
725	Shop Service	Support Facilities	
730	Central Storage	Support Facilities	
735	Central Storage Service	Support Facilities	
740	Vehicle Storage	Support Facilities	
745	Vehicle Storage Service	Support Facilities	
750	Central Service	Support Facilities	
755	Central Service Support	Support Facilities	
760	Hazardous Materials Storage	Support Facilities	
770	Hazardous Waste Storage	Support Facilities	
775	Hazardous Waste Service	Support Facilities	
780	Unit Storage	Support Facilities	
810	Patient Bedroom	Health Care	
815	Patient Bedroom Service	Health Care	
820	Patient Bath	Health Care	
830	Nurse Station	Health Care	
835	Nurse Station Service	Health Care	
840	Surgery	Health Care	
845	Surgery Service	Health Care	
850	Treatment/Exam Clinic	Health Care	
855	Treatment/Exam Clinic Service	Health Care	
860	Diagnostic Service Laboratory	Health Care	
865	Diagnostic Service Laboratory Support	Health Care	
870	Central Supplies	Health Care	
880	Public Waiting	Health Care	
890	Staff On-Call Facility	Health Care	
895	Staff On-Call Facility Service	Health Care	
910	Sleep/Study without Toilet or Bath	Residential Facilities	
919	Toilet or Bath	Residential Facilities	
920	Sleep/Study with Toilet or Bath	Residential Facilities	
935	Sleep/Study Service	Residential Facilities	
950	Apartment	Residential Facilities	
955	Apartment Service	Residential Facilities	
970	House	Residential Facilities	
510	Armory	All Other Facilities	Special Use
515	Armory Service	All Other Facilities	Special Use
540	Clinic	All Other Facilities	Special Use
545	Clinic Service	All Other Facilities	Special Use
550	Demonstration	All Other Facilities	Special Use
555	Demonstration Service	All Other Facilities	Special Use

560	Field Building	All Other Facilities	Special Use
570	Animal Facility	All Other Facilities	Special Use
575	Animal Facility Service	All Other Facilities	Special Use
580	Greenhouse	All Other Facilities	Special Use
585	Greenhouse Service	All Other Facilities	Special Use
640	Day Care	All Other Facilities	Special Use
645	Day Care Service	All Other Facilities	Special Use
W01	Bridge/Tunnel	Non-assignable area	Circulation
W02	Elevator	Non-assignable area	Circulation
W03	Escalator	Non-assignable area	Circulation
W04	Loading Dock	Non-assignable area	Circulation
W05	Lobby	Non-assignable area	Circulation
W06	Public Corridor	Non-assignable area	Circulation
W07	Stairway	Non-assignable area	Circulation
X01	Custodial Supply Closet	Non-assignable area	Building Service
X02	Janitor Room	Non-assignable area	Building Service
X03	Public Restroom	Non-assignable area	Building Service
X04	Trash Room	Non-assignable area	Building Service
Y01	Central Utility Plant	Non-assignable area	Mechanical Area
Y02	Fuel Room	Non-assignable area	Mechanical Area
Y03	Shaft	Non-assignable area	Mechanical Area
Y04	Utility/Mechanical Space	Non-assignable area	Mechanical Area
050	Inactive Area	Non-assignable area	Unclassified Facilities
060	Alteration or Conversation Area	Non-assignable area	Unclassified Facilities
070	Unfinished Area	Non-assignable area	Unclassified Facilities

Measurement	Abbreviation	Measurement Definition
Gross Square Feet	GSF	Equals the sum of all areas on all floors of a building within the outside faces of the exterior walls, including vertical shaft areas, mechanical and utility rooms, and all circulation areas that connect rooms or floors to one another. GSF is reported on the Building Table template, and is computed by physically measuring from the outside faces of the exterior walls, disregarding cornices, pilasters, buttresses or other structures that extend beyond the wall faces. GSF = USF, or Net Useable Area + Structural Space.
Usable Square Feet	USF	Also called Net Usable Area, equals the sum of all areas on the floors of a building. USF is reported on the Building Table template. USF = Assignable Areas + Non-assignable Areas (refer to figure 3.1, page 18 of the FICM.)
Assignable Square Feet	ASF	Equals the amount of space that can be used for people or programs. ASF is reported on the Building Table template, and equals the sum of the space allocated to the 10 major room use categories (000-999): classrooms, laboratories, offices, study areas, special use, general use, support, health care, residential, and unclassified spaces.
Non-Assignable Area	-	Refers to the amount of space within a building that is essential to the operation of the building, but is not assigned directly to people or programs. The area of non-assignable space is the area measured within its interior walls, and includes the three major space use categories of non-assignable space: building service area, circulation area, and mechanical area.
Area Square Feet	Area SF	Represents a measurement of the interior space reported on the Room Table template. Area Square Feet will equal Usable Square Feet (USF) in the Building Table template, since all interior room spaces are reported.

Space Study Working Group
Summary of Board of Regent Deliverables and Recommendations by Working Groups

9. *Data collection for both the Inventory Report and the Utilization Report must be expanded to include medical and dental facilities, and other appropriate spaces currently excluded from the existing methodology.*

Additional comments related to Internal Audit Findings: Room Report – The daily room report did not include all available rooms and corresponding number of student stations in each of the rooms. Suggest verification of room numbers.

Additional recommendations provided by the Technical Review Committee: None.

Space Study Working Group Recommendation:

The working group recommends the new Inventory and Utilization Reports include medical and dental facilities. The working group recommends the new Utilization Report include classrooms and class labs scheduled for use by the School of Medicine and the School of Dental Medicine as part of the Health Sciences System (HSS).

Background: The working group acknowledges that the current space reporting guidelines do not permit the inclusion of medical and dental facilities. The working group developed new reporting structures to accommodate the organizational changes.

The new location reporting structure is provided on the following table.

Space Reports
“Roll-up” Reports and Facility Locations

Inventory Report = Capture and report all categories of space owned, leased to other entities, and leased from other entities with 100% exclusive use by the institution.

Utilization Report = Capture and report classroom and class lab use by building for each facility location owned and leased from other entities with 100% exclusive use by the institution.

“Roll-up” Reports:	Facility Locations:
Systemwide	UNR, School of Medicine, UNLV, School of Dentistry, DRI, NSC, CSN, TMCC, WNC, GBC, System Administration
UNR	Main Campus, Stead Campus, School of Medicine LV, School of Medicine Reno, Reno & Las Vegas Clinical Sites, Redfield Campus, Great Basin Science Samples, Ag Experiment Station (Statewide), Cooperative Extension Facilities (Statewide), System Residential Properties, Fire Science Academy
UNLV	Main Campus, Shadow Lane, School of Dental Medicine
DRI	Northern Campus, Southern Campus, Colorado Site
NSC	Main Campus, Dawson, Downtown (Water Street)
CSN	West Charleston, Campus, Desert Garden Center, Henderson Campus, Cheyenne Campus, Mesquite Campus, West Sahara Campus, Palo Verde/Summerlin High Tech Center, Boulder City Campus, Green Valley Tech Center, Western High Tech Center, Caliente , Nellis, Overton/Logandale
TMCC	Dandini Campus, Meadowood Center, IGT Applied Technology Center (Edison), Redfield Performing Arts Center, High Tech Center at Redfield
WNC	Carson City (Main) Campus, Douglas Campus, Fallon Campus
GBC	Elko (Main) Campus, Winnemucca Campus, Ely Campus, Pahrump High Tech Center
System Administration	System Computing Center North, System Computing Center South, System Administration Office North, System Administration Office South, University Press, Sponsored Projects Office, Nevada Industry Excellence (NVIE, formerly MAP), WICHE Office

Space Study Working Group

Summary of Board of Regent Deliverables and Recommendations by Working Groups

10. *The Utilization Report must include mechanisms to quantify inefficient space configuration, with the ability to identify surplus space for purposeful reconfiguration as part of future deferred maintenance, capital renewal, and plant adaption projects.*

Additional comments related to Internal Audit Findings: None.

Additional recommendations provided by the Technical Review Committee: None.

Space Study Working Group Recommendation:

For the new Inventory Report, the working group recommends abandoning the practice of predicting space needs for all classifications of space owned and leased by NSHE institutions. Instead, the working group recommends predicting future space requirements for the classifications of spaces that are central to the institution's instructional and research missions. These academic-based classifications are: Classrooms, Class Labs, Faculty Offices, Research Space, and Libraries. With minor modifications, the working group recommends retaining the calculations and methodology currently in place to predict the need for new academic and research spaces.

As a supplement to the new Inventory Report, the working group recommends quantifying "net surplus" space. Where the total "net surplus" exceeds the calculated need by 10 percent, an automated exception report will be generated, which will require NSHE institutions to clarify the nature of the underlying surplus and the extent to which surplus spaces may be converted to another configuration or purpose. The consolidated narrative provided by the institutions will be provided to the Board as part of the biennial reporting requirement.

Background: The working group's evaluation of "best practices" related to space inventory predictors revealed that the California and the Texas models specifically focus on the classifications of spaces that are central to the institution's academic and research missions. As a result, the recommendation to abandon the use of space predictors for all other classifications of space owned and leased is appropriate. The working group acknowledges that the underlying calculations and drivers currently in place to predict the need for new academic and research spaces have served NSHE institutions well, and as a result, are appropriate to continue in the future with some modification in order to ensure consistency under the new automated reporting format. The modifications contemplated by the working group are intended to simplify the process by eliminating discipline-specific drivers or modifying current drivers to be more reflective of evolving needs.

With respect to the modifications intended to simplify library space needs, the working group evaluated the evolving metrics for library spaces, and concluded that the new library space predictor should reduce the driver for bound volumes (i. e. traditional "stack space") in favor of increasing the drivers associated with study spaces and media spaces that are used in network-assisted research libraries. The working group acknowledges that the space predictor metrics for library spaces in particular are intimately linked to accreditation standards, and as a result will likely require additional adjustment in the future.

Space Study Working Group
Summary of Board of Regent Deliverables and Recommendations by Working Groups

For reference spreadsheets follows to clarify the both the drivers and calculations used to determine current and future space needs for the five key academic and research-based predictors as developed for the Fall 2010 test period for the development of the new space inventory reporting.

The working group acknowledged that surplus spaces are not easily converted to other purposes without renovation, and often with significant cost. To better manage evolving space needs, the working group identified an inventory-related “best practice” model implemented by Utah that quantifies the net amount of surplus square footage. The working group’s recommendation for producing an automated exception report used specifically to provide the Board with information about potential renovations is intended to support a coordinated, long-range capital improvement program planning effort for the System (see sample report following Deliverable #1).

Space Study Working Group
Summary of Board of Regent Deliverables and Recommendations by Working Groups

11. *The Utilization Report must be expanded to include instructional space associated with short-term, non-credit courses, including Business and Industry workshops, public service courses, and school district partnerships.*

Additional comments related to Internal Audit Findings: Room Use – An analysis of the effective use of space revealed that space is both under-utilized and under-reported by institutions. Suggest identifying ways of utilizing space more efficiently. Suggest expanding student contact hours generated from modular/irregularly scheduled and non-credit producing classes and laboratories.

Additional recommendations provided by the Technical Review Committee: None.

Space Study Working Group Recommendation:

The working group recommends including short-term courses, industry workshops, public service classes, continuing education workshops, school district partnership offerings, and other modular courses in the new Utilization Report, without regard for funding source, or whether credit is earned.

The working group recommends that the new Utilization Report normalize for an entire semester the time-day sequence obtained via the Student Information System for the contact hours and occupancy generated from modular and non-credit-producing courses.

Background: The working group reaffirms the intended purpose of the new Utilization Report as capturing instructional space use and occupancy. As a result, the working group concurs with the direction provided by the Board to require the inclusion of room use and occupancy associated with modular, non-traditional instructional courses scheduled by the NSHE institutions. The working group acknowledges that courses of this nature are scheduled by the NSHE institutions to make the most effective utilization of classroom spaces not otherwise scheduled with traditional, semester-based courses. For the colleges, these non-traditional courses represent a significant component of the overall use of academic space. However, in evaluating the PeopleSoft scheduling criteria, the working group concludes that excluding one-time events and other non-mainstream use from the new Utilization Report since neither the occupancy associated with the event or the extent to which an instructional purpose exists can be verified.

The PeopleSoft scheduling system contains the source data used for the new space utilization reports. To obtain the required data, System Administration will execute a standardized space utilization query on behalf of the institutions during the established census dates. The resulting data extract files are transmitted to the data warehouse for processing. For departments using satellite reporting systems to schedule courses, such as Continuing Education and the Dental School, institutions are required to use a standardized space utilization query to obtain the necessary information in a format that parallels the PeopleSoft format. The working group's recommendation to normalize the time-day sequence for an entire semester represents a standardized methodology to accurately account for modular and other short-term courses.

Space Study Working Group
Summary of Board of Regent Deliverables and Recommendations by Working Groups

12. *Both the Inventory Report and the Utilization Report must recognize instructional spaces used for multiple purposes.*

Additional Comments related to Internal Audit Findings: Utilization Reporting Guidelines - Clarify how dual-use rooms should be classified and treated for instructional space utilization purposes.

Additional recommendations provided by the Technical Review Committee: None.

Space Study Working Group Recommendation:

The working group recommends classifying all spaces according to the predominate use of the space, which is defined as 51 percent or more of the use of the space.

For the new Inventory and Utilization Reports, the working group recommends classifying conference rooms as classrooms only if the use of the space exceeds 51 percent as a classroom function.

For the new Utilization Report, the working group recommends separately accounting for the occupancy of stage and seating areas within auditoriums and theaters through a process of sub-classification.

Background: The working group recognizes conference rooms, auditoriums, and theaters may be used by the NSHE institutions for multiple purposes. For example, an institution may schedule a modular or other non-traditional course in a conference room. Assuming a 45-hour week for conference space, unless the conference space were used at least 22.95 hours, or 51 percent of the time available for class use, the conference room would not be reclassified to classroom space.

The classification of auditoriums and theaters represents a unique challenge since, by the nature of their design and function, seating areas may be used independently from the stage areas, each component with a discreet station capacity.

The working group acknowledges that the burden of accurately classifying rooms and other spaces resides with the NSHE institutions, and conformance to the classification standards established by the *Facilities Inventory and Classification Manual* is critical to ensure accurate reporting of space use and inventory.