

**MINNESOTA STATE COLLEGES AND UNIVERSITIES
BOARD OF TRUSTEES**

Agenda Item Summary Sheet

Committee: Finance and Facilities

Date of Meeting: April 19, 2011

Agenda Item: Board Goal: Physical Plant and Budget Request Sizing

- Proposed Policy Change Approvals Required by Policy Other Approvals Monitoring
- Information

Cite policy requirement, or explain why item is on the Board agenda: This report responds to the Board of Trustees request for an analysis of the physical plant size of the Minnesota State Colleges and Universities system of college and university campuses and the capital budget associated with the facilities, infrastructure, and real estate assets.

Scheduled Presenter(s): Laura M. King, Vice Chancellor – Chief Financial Officer
Brian Yolitz, Associate Vice Chancellor for Facilities

Outline of Key Points/Policy Issues: The report is organized with an assessment of the System physical plant in relation to neighboring states in terms of size and population, trends in Minnesota Higher Education, and a review of the impact of on-line programs. Capital budget trends and comparisons are provided along with modeling for cost of physical plant ownership and debt forecasts. The report provides recommendations for development of the FY2012 capital budget request and further planning.

Background Information: Limited capital funding in FY2010 coupled with new and emerging capital requirements to address deferred maintenance backlog, renewal needs, and student growth has created large demand for capital investment. The state of a capital bonding bill in FY2011 is in question. Economic conditions in the design and construction sectors and in the financial markets make now one of the best times to pursue construction work.

The Board of Trustees is scheduled for a first reading of the FY2012-FY2016 Capital Budget Request in June, 2011. The second reading is also expected to be in June 2011. The Board's recommendation to the Governor is due to Minnesota Management and Budget by the end of June, 2011.

**BOARD OF TRUSTEES
MINNESOTA STATE COLLEGES AND UNIVERSITIES**

INFORMATION ITEM

Board Goal: Physical Plant and Capital Budget Size of System Report

BACKGROUND

This report responds to the Board of Trustees request for an analysis of the physical plant size of the Minnesota State Colleges and Universities system of college and university campuses and the capital budget associated with the facilities, infrastructure, and real estate assets. After a brief history, the report is organized with an assessment of the System physical plant in relation to neighboring states in terms of size and population, trends in Minnesota Higher Education, and a review of the impact of on-line programs. Capital budget trends and comparisons are provided along with modeling for cost of physical plant ownership and debt forecasts. Finally, recommendations for development of the FY2012 capital budget request and further planning are provided.

PHYSICAL PLANT SIZE

Current Physical Plant: In 2011, the System provides public higher education for Minnesota by operating 26.8 million square feet of owned facility space primarily located at 54 campus locations across the state. These facility assets can be broken down into two broad categories, academic space supporting programs totaling 21.7 million square feet and revenue fund sponsored facilities such as residential halls, student unions, parking, wellness centers, comprising 5.1 million square feet.

Total System facility square footage: 26.8 million
Owned academic facility square footage: 21.7 million
Owned revenue fund facility square footage: 5.1 million
Total owned acreage: 6,792
Supported student population:
FYE (FY 2010): 155,427
Head count (credit course): 276,977
Head count (total unduplicated): 433,622

Physically largest campus: St Cloud State University:
Owned academic facility square footage: 2,001,654 sq ft
Owned revenue fund facility square footage: 911,890 sq ft
Owned parking ramp: 207,000 sq ft
Owned acreage: 928 total acres (293.6 maintained and 634.4 acres in non-maintained acreage such as forest, open fields, farmland, etc)

Supported student population (FY 2010):
FYE: 15,096
Headcount (credit course): 21,939
Headcount (total unduplicated): 52,784

Physically smallest campus: Riverland Community College, Owatonna Campus
Owned academic facility square footage: 24,271 sq ft
Owned revenue fund facility square footage: 0
Owned acreage: 27.4
Supported student population (FY2010):
FYE: 278
Headcount (credit course): 438
Headcount (total unduplicated): 631

Leasing: Institutions periodically lease space on and off campus to address short-term programmatic or specialized space needs that do not require a long-term capital investment, to bridge until new owned space can be secured, to generate on campus auxiliary income or where space use is better achieved through leasing.

Some noteworthy examples of off-campus leases include:

- Minnesota State University Mankato leases office space in Edina offering classrooms and support space for their Masters of Business Administration, public affairs and related programs, supporting 258 FYE or an unduplicated headcount of 687;
- St. Cloud State University has a master lease of an apartment building and welcome center in St. Cloud to augment campus housing options, and;
- Bemidji State University's hockey program serves as the primary tenant in the Bemidji Regional Events Center.

By contrast, examples of on campus leases include:

- Workforce development centers at numerous locations, such as St. Cloud Technical College, Northland Community and Technical College, Rainy River Community College, Riverland College, and Minnesota State College Southeast Technical in Winona;
- Agricultural land to local farmers to cultivate lands (and reduce their operating costs related to maintaining such acreage);
- Leases to telecommunication providers for cellular antennas and towers;
- City of St. Paul Public library lease for public access at Metropolitan State University, and;
- An assortment of retail-style tenants at the state universities, such as Barnes & Noble bookstores, Affinity Plus Federal Credit Unions, and Subway sandwich shops.

Campuses are asked to report on leases that are valued greater than \$10,000 and last longer than one year in the accounting system's lease module. This has been the first full year of the lease module operations. Based on the FY2011 campus lease reporting in the

Integrated Statewide Record System (ISRS), there are approximately 309 active leases in the system, including 172 off-campus leases and 137 on-campus leases.

Figure 1. Current Lease Statistics

	Building Sq. Ft.	Land Sq. Ft.	# of leases
As Landlord	260,448	1,609,308	137
As Tenant	1,463,665	70,725	172

Source: Integrated Statewide Record System (ISRS) Lease Module, March 23, 2011

History: The current System physical plant size and locations reflect the merger in 1995 of three separate and distinct higher educational systems; the Minnesota State University System, the Community College System and the Vocational-Technical System.

The State University System has roots in the 1800’s with campuses at Winona, Mankato, St Cloud, and Moorhead established between 1860 and 1885. Bemidji State University was established in 1919 and Southwest Minnesota State University was opened in Marshall in 1967. Finally, Metropolitan State University was established in 1971 in St Paul.

During the period of 1911-1927, the Community College System started with 2 year campuses in Minneapolis, Hibbing, Faribault, Virginia, Ely, and Duluth. The system did not receive legislative sponsored appropriations until 1957. In 1963, the Junior College Board formed and eventually grew the network of community colleges to 21 campuses.

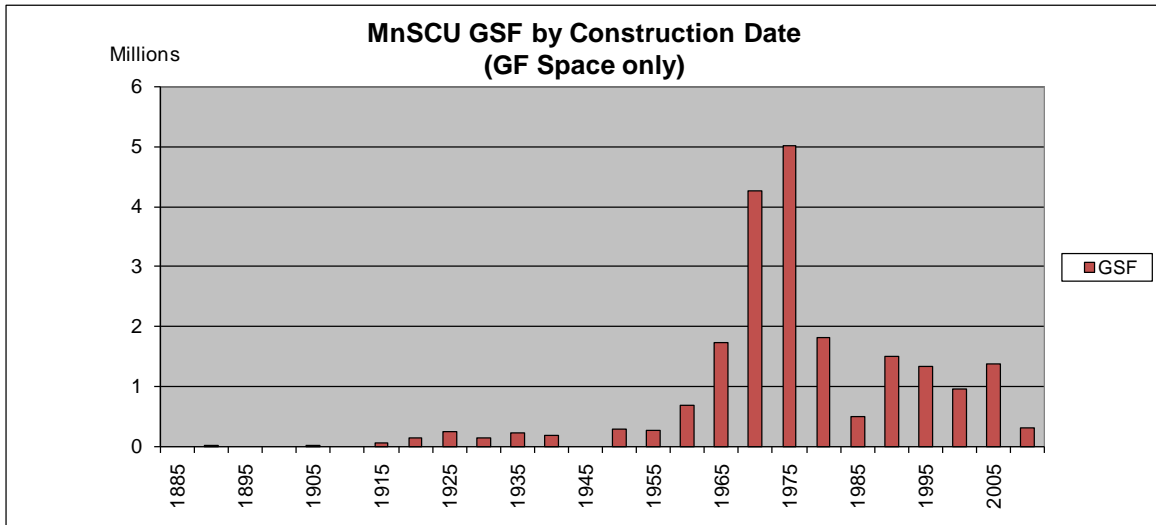
Weaving together individual institutions with early roots in Minnesota, the Vocational-Technical system took shape with campuses in St Cloud, Thief River Falls, Winona, Austin, St Paul, and Minneapolis between 1947 and 1955. The system continued to expand over time, emerging from the K-12 districts. In 1984, the Board of Vocational Education formed with oversight of 37 technical colleges.

At the time of the creation of the Minnesota State Colleges and Universities system in 1995, 58 separate institutions came under the governance of the Board of Trustees. Over time, organizational realignments led to the system having 32 institutions at 53 campuses. Legislative action in 2008 added the Owatonna Higher Education Center to Riverland Community College bringing the total number of campuses to 54.

During the last 10 years, campus master planning has focused on sustaining needed facility infrastructure, improving space flexibility and usage, and reducing, reusing and recycling space where appropriate and responsive to demonstrated growth needs. As a result, the net gain in the total System physical plant square footage was 2.3 million square feet or roughly 12%, which includes facility additions, new construction, acquisitions as well as 950,000 square feet being removed via demolition, transfer, sale or mothballing. During this same time, FYE for the system as a whole increased 36% (114,199 to 155,427).

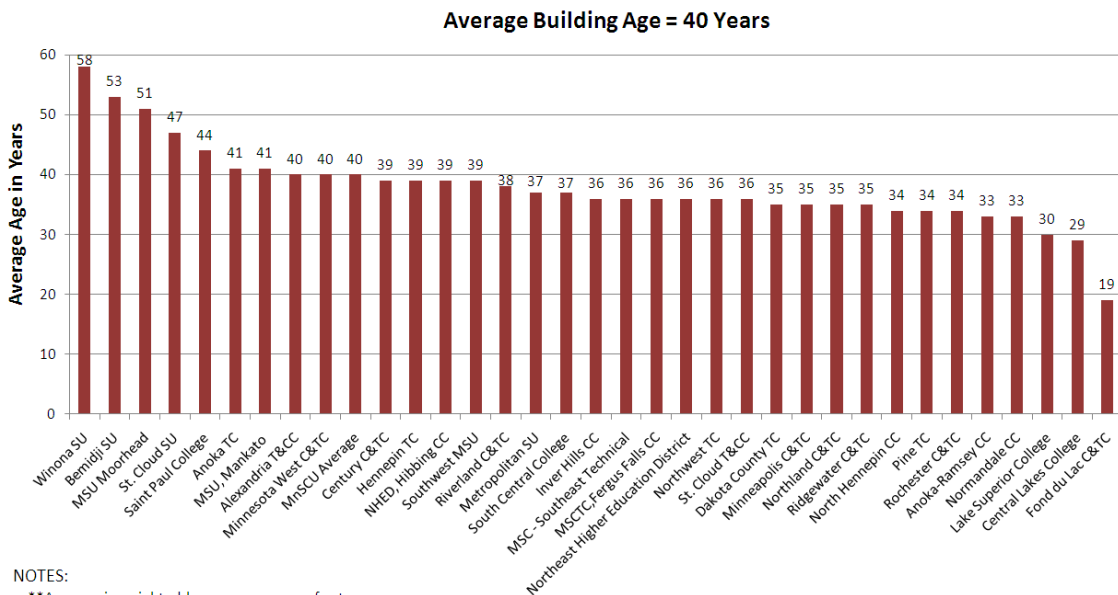
Physical Plant Age: The majority of the Minnesota State Colleges and University System facility square footage was built in response to the community college boom in the 1960's and 70's. On a square footage basis, the average age for System facility space is 40 years. Figure 2 shows the years in which new space (in million square feet) was built in the System. Figure 3 provides the average age of facility space by institution.

Figure 2. Gross Square Footage (GSF) Construction by Year



Source: January 2009 Board Presentation from Facilities Renewal Reinvestment Model (FRRM) Data

Figure 3. Average Facility Age By Institution



NOTES:

**Average is weighted by campus square footage.

Source: 2010 Facilities Renewal Reinvestment Model (FRRM) Data

Physical Plant Condition: The two most significant elements affecting the condition of a facility or building components over time are quality of initial construction and level of maintenance and repair expended to maintain components . For example, a boiler with a 30-year life expectancy may have its life extended by 10 years with excellent maintenance and timely component replacement. The same is true relative to the on-going care, maintenance, and replacement of equipment and systems throughout an entire building structure.

In 2004, the Facilities Renewal Reinvestment Model (FRRM) was adopted as the System's benchmark in assessing facility condition and quantifying costs associated with facility ownership. FRRM was endorsed by professional organizations including APPA (formerly known as Association of Physical Plant Administrators of Universities and Colleges), National Association of College and University Building Officers (NACUBO), and Society of College and University Planning (SCUP). It is based on a simplified life cycle analysis that is informed by campus personnel reporting on their specific facility conditions. Key elements describing plant condition within FRRM include:

Current Replacement Value (CRV): Total amount in current dollars required to replace the institution's educational and general facilities to its optimal condition. It includes facilities supported by both the capital and revenue fund programs. CRV is calculated through an algorithm within FRRM based on campus level inputs detailing individual facility type, size, complexity, major systems, and repair history.

Deferred Maintenance Backlog: Defined as work that has been deferred on a planned or unplanned basis to a future budget cycle or postponed until funds become available. Typically includes expenditures for the total estimation of existing major maintenance repairs and replacements identified by a comprehensive facilities condition audit of buildings, grounds, fixed equipment, and infrastructure needs.

Facilities Condition Index (FCI): The relationship of Deferred Maintenance Backlog divided by the Current Replacement Value.

5 Year Renewal: Known future cyclical repair and replacement requirements that need to occur in the next 5 years to extend the life and retain the usable condition of facilities and systems. These costs are cyclical, based on the life expectancy of individual system component life cycles, i.e., plumbing fixtures – 25 years; HVAC equipment and controls – 30 years; fire protection systems – 40 years; interior finishes – 15 years. Those renewal requirements not addressed in the year of need, become part of the deferred backlog.

System size, CRV, Deferred Maintenance Backlog, FCI, and 5-Year Renewal history for the last 5 years are at Figure 4.

Figure 4. System Facility Size and Condition

Year	Sq ft	Current Replacement Value (CRV)	Deferred Maintenance Backlog	Facilities Condition Index (FCI)	5-year renewal
2006	25,691,484	\$5.8B	\$748M	0.13	\$411M
2007	25,939,805	\$6.3B	\$806M	0.13	\$428M
2008	26,065,365	\$6.6B	\$778M	0.12	\$478M
2009	26,672,956	\$6.9B	\$755M	0.11	\$494M
2010	26,792,758	\$6.9B	\$750M	0.11	\$461M

Source: 2010 Facilities Renewal Reinvestment Module Data

Over the last five years, System CRV has increased due to a combination of inflation, investment in repair and upgrade of existing space, and the addition of new square footage on campuses. Given a current CRV of \$6.9B and the System FYE of 155,427, each full time equivalent student is provided access to roughly \$45,000 in physical plant assets.

While the System’s capital investment focus has been on maintenance and repair of existing space, investment levels have not been sufficient to draw down deferred maintenance levels. The backlog of differed maintenance has remained relatively steady over the 5 year period. The System overall FCI has improved slightly over the same period, while the 5-year renewal needs have trended up by just over 10%, reflecting the growing number of system components and facility spaces reaching the end of their useful life.

System Comparison - Area: States have differing public higher education governance structures, program alignments, degrees, and certificates making direct one-for-one comparison difficult. The tables below provide gross comparisons between Minnesota’s public higher educational systems and that of neighboring states. Tennessee is included as they have a public higher education structure with both colleges and universities, similar to the Minnesota State Colleges and Universities system.

Figure 5. State Size and Public Higher Education Campus Comparison

State	Area (sq miles)	Public Higher Education Campuses			Square Miles per Public Campuses		
		4 year	2 year	Total	4 year	2 year	All Public Higher Ed
Minnesota	79,610	13	47	60	6,124	1,694	1,327
Wisconsin	54,610	14	72	86	3,901	758	635
Iowa	55,869	3	73	76	18,623	765	735
North Dakota	68,976	4	7	11	17,244	9,854	6,271
South Dakota	75,886	7	5	12	10,841	15,177	6,324
Tennessee	41,217	10	60	70	4,122	687	589
Average	62,695	9	44	53	10,142	4,823	2,647

Source: State Higher Education Executive Officers (SHEEO) and review of state public higher education websites

Data indicate that when compared to the group average, Minnesota's public universities and colleges (including both the MnSCU system and the University of Minnesota campuses) cover less area, or have less 'reach'; however, they theoretically cover more area than the public higher education system campuses of Wisconsin, Iowa, or Tennessee, meaning fewer campuses per square mile. They cover a smaller portion of state geographic area when compared to North and South Dakota to the west.

If these campuses and their area of coverage were arranged in a perfect distribution of squares, with the campus located at the center of the square, the distance to any corner of that square would represent the furthest distance any state resident would have to travel in a perfect distribution of public higher education campuses.

For the public universities in Minnesota, this distance would be approximately 58 miles; for a 2-year program at a community or technical college it would be 29 miles; and for a public higher education campus, the hypothetical distance would be 26 miles. Figure 6 shows the hypothetical distances for Minnesota's neighboring states and Tennessee.

Figure 6. Hypothetical Distance to Public Higher Education Campuses

State	Square Corner Distance (Miles)		
	4 year	2 year	All Public Higher Ed
Minnesota	55	29	26
Wisconsin	44	19	18
Iowa	96	20	19
North Dakota	93	70	56
South Dakota	74	87	56
Tennessee	45	19	17
Average	68	41	32

In this rough analysis, Minnesotans have a shorter than average travel distance to gain access to the physical space of a public higher education institutions as compared to the overall average of the group. The commutes are shorter than that for the population of the Dakotas, but longer than those of Wisconsin, Iowa, and Tennessee. Geographic coverage however, is only a part of the comparison.

System Comparison - Population: Public higher education is intended to serve the citizens the state. Figure 7 provides an assessment of the number of residents serviced by public higher education campuses.

Figure 7. State Population and Public Higher Education Campuses

State	Population (2009)	Public Higher Education Campuses*			Residents supported per Public Higher Education Campus					
		4 year	2 year	Total	4 year		2 year		All Public Higher Ed	
Minnesota	5,220,000	13	47	60	401,538	8%	111,064	2%	87,000	2%
Wisconsin	5,628,000	14	72	86	402,000	7%	78,167	1%	65,442	1%
Iowa	3,003,000	3	73	76	1,001,000	33%	41,137	1%	39,513	1%
North Dakota	641,000	4	7	11	160,250	25%	91,571	14%	58,273	9%
South Dakota	804,000	7	5	12	114,857	14%	160,800	20%	67,000	8%
Tennessee	6,215,000	10	60	70	621,500	10%	103,583	2%	88,786	1%
Average	3,585,167	9	44	53	450,191	13%	97,720	3%	67,669	2%

Source: State Higher Education Executive Officers (SHEEO) and review of state public higher education websites

As a percentage, Minnesota public higher education campuses support the state's population on par with Wisconsin, Iowa and Tennessee. Having substantially smaller population numbers, the public higher education campuses of North and South Dakota service a larger percent of their state's residents.

Minnesota Higher Education Enrollment Trends: The Minnesota Office of Higher Education (MOHE) tracks higher education enrollment within the state using credit only headcount from fall terms. In their *Basic Data Series 2009*, published in July 2010, they report total enrollment at public and private institutions in post secondary education rose by 23% from 2005 to 2009. Of that total growth of nearly 85,000 students, private institutions made up 66% of the total growth. Private Career Schools Online (Capella University, Walden University) growth, which includes a substantial amount on non-Minnesotan students (70,460 of their 72,712 enrollees, or 97%, are non-Minnesotan), accounted for two-thirds of the private sector enrollment growth and 43% of the total state enrollment growth.

Figure 8. Minnesota Postsecondary Education Enrollment Data

	Enrollment 2005	Enrollment 2009	Change Total Percent	
University of Minnesota	65,489	67,364	1,875	2.9%
MnSCU State Universities	63,654	68,582	4,928	7.7%
MnSCU Community and Technical Colleges	112,111	134,224	22,113	19.7%
Total Public Institutions	241,254	270,170	28,916	12.0%
Private Colleges & Universities	63,015	66,530	3,515	5.6%
Private Graduate & Professional	4,129	3,092	-1,037	-25.1%
Private Career Schools	20,380	37,033	16,653	81.7%
Private Career Schools Online	36,062	72,712	36,650	101.6%
Total Private Institutions	123,586	179,367	55,781	45.1%
Total Minnesota Institutions	364,840	449,537	84,697	23.2%

Source: *Basic Data Series 2009*, Minnesota Office of Higher Education, July 2010
<http://www.ohe.state.mn.us/pdf/enrollment/basicdata/basicData2009.pdf>

The University of Minnesota experienced 2.9% growth over the 5 year period with an enrollment increase of 1,875, which was 6% of the public growth and only 2% of the total state post secondary education growth.

In terms of the total higher education market, Minnesota State Colleges and Universities share shrunk between 2005 and 2009, from 48.2% to 45.1%. However, when the Private Career Schools Online are removed from the assessment due to the vast majority of their students being non-Minnesotan, the System's share of the total higher education market actually grew slightly from 53.5% to 53.8%.

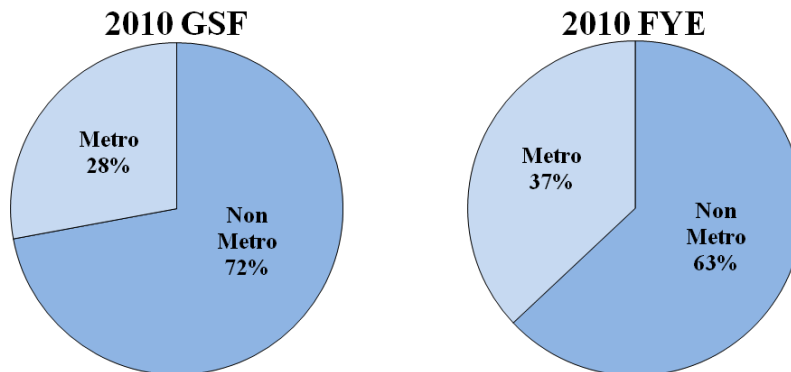
Looking towards the future, *Help Wanted: Projections for Jobs and Education Requirement through 2018*, published in June 2010 by Georgetown University’s Center on Education and the Workforce, states that “70% of all jobs in Minnesota (2.1 million) will require some postsecondary training beyond high school in 2018.” This reflects the addition of 152,000 jobs or 7%, from the study’s 2008 baseline, in jobs requiring some postsecondary training beyond high school. The forecast places Minnesota 7% above the national average for percentage of jobs requiring postsecondary training and third overall in terms of postsecondary education intensity behind North Dakota and the District of Columbia. While not all training for these jobs should be expected to come direct from Minnesota State Colleges and Universities institutions or programs, it does reflect an expected growing demand for postsecondary education within Minnesota.

Minnesota State Colleges and Universities System Enrollment Trends: In the MOHE report, Minnesota State Colleges and Universities system institution enrollment grew by 15.4%, just over 27,000 between 2005 and 2009, accounting for 94% of the public sector growth and 32% of the state’s total post secondary education growth.

More broadly, Minnesota State Colleges and Universities system institutions are servicing a larger portion of the state population. Between 2000 and 2010, U.S. Census Bureau data show the state’s population grew by 384,000 people or roughly 7.8% with nearly 75% of the growth occurring in the Twin Cities metro area.

During the same period, System FYE grew 36%, or by 41,228 to a total FYE of 155,427. System FYE as a percentage of total state population grew from 2.3% to 2.9%. FYE grew more than 60% at the 11 metro area System institutions, accounting for just over 50% of the System’s total FYE growth. Metro area institutions now represent 37% of total System FYE while accounting for 28% of the physical space.

Figure 9. Minnesota State Colleges and Universities Gross Square Footage (GSF) and Full-Time Equivalent (FYE) Metro and Non-Metro Comparison



Source: Office of the Chancellor Facilities Planning Division

For-Credit Academic Space Utilization: Nationally recognized standards for higher education academic space utilization consider use of 30 to 33 hours a week as “100% utilization” for academic spaces which includes class rooms and laboratory spaces. This

reflects that 1 to 4 hours are spent on academic work outside of the classroom in independent and group study, research, lab time, and seminars.

There are recognized shortfalls with the system's data management systems associated with tracking facility utilization. Currently data is gleaned from for-credit registration to track room use. It does not account for on-line/on-campus use, customized training, other institution use of academic space (i.e., 4 year classes delivered on a 2 year campus), K-12, or other uses. Office of the Chancellor and campus representatives are working to solve this and have initiated a request for proposals to update or replace the scheduling software with a goal of fielding the system in 2012.

The current data does provide general insight into for-credit utilization of academic space throughout the System.

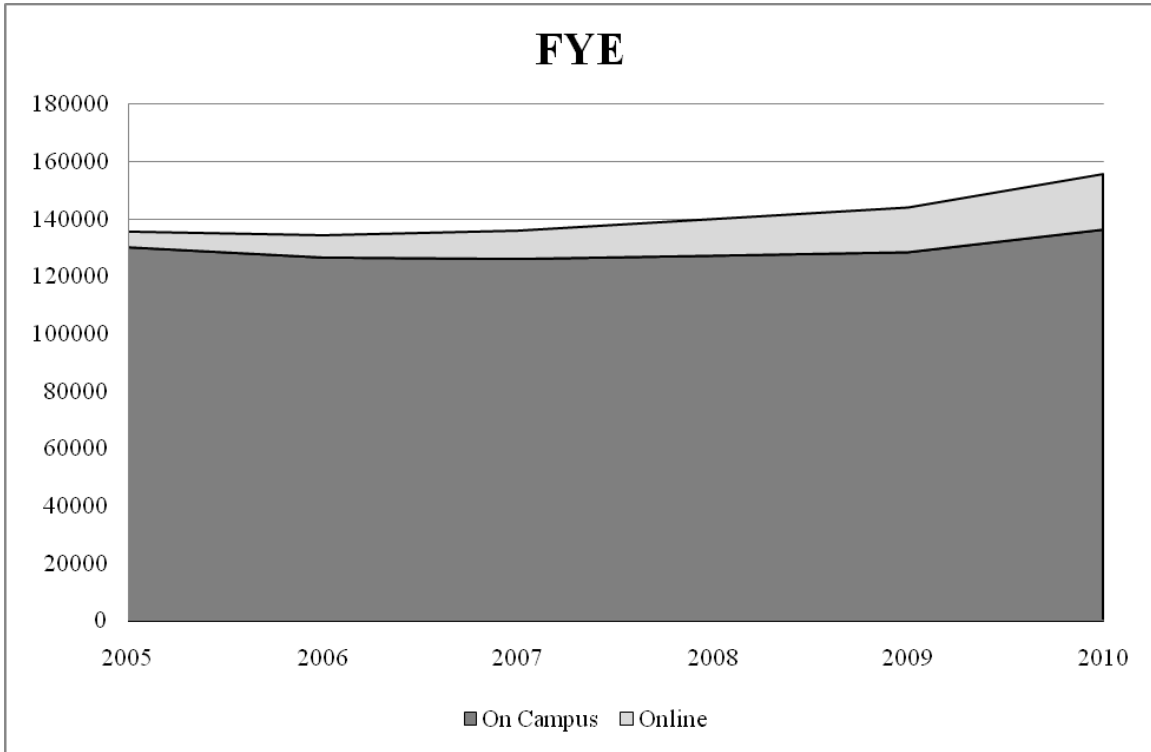
- Overall System for-credit space utilization for Fall 2010 averaged 73%
 - University for-credit space utilization was 82% on average
 - College for-credit space utilization was 72% on average
- Metro area campus for-credit space utilization for Fall 2010 was approximately 90%, while average non-metro space utilizations was 74%
- Campuses with the highest reported for-credit space utilization are North Hennepin Community College, Normandale Community College, Minnesota State Community and Technical College – Moorhead, Century College, and Minnesota State University, Mankato with utilization over 100% on the 32 hour standard.
- Campuses with the lowest reported for-credit space utilization are Minnesota West Community and Technical College at Canby, Granite Falls, and Worthington and Central Lakes College at Staples with utilization around 50% on the 32 hour standard.

Many factors influence the for-credit class offerings and ultimately space utilization. They include student demographics, full time students versus working/night-time students, faculty, facility configuration, regional weather and transportation networks impact some non-metro campuses.

While not fully encompassing measures, the data coupled with known shortfalls, provide insights into relative space utilization and are used as input to master plans, pre-designs, capital budgeting and review, prioritization, and real estate lease planning.

On-Line Learning And Physical Plant: On-line courses have increased substantially over the past several years. Figure 10, Full-Time Equivalent - FYE – On Campus and On-Line, shows that while on-line FYE has grown rapidly, particularly in the last 2 years, there has not been a trade-off or reduction in on-campus FYE. In fact, on-campus FYE has grown over time.

Figure 10. Full-Time Equivalent - FYE – On Campus and On-Line



Source: <http://www.its.mnscu.edu/reportanddataservices/managementreports/distancereports.php>

There are many factors influencing the impact on-line course work has on campus physical plant needs. Students use online courses to augment their on-campus curriculum, very few use it as a means to reduce or eliminate going to campus. Most students take online classes for the convenience and flexibility in scheduling. In fact, 76% of all students taking online courses are also on-campus students.

An on-line course doesn't mean "not on campus," 24% of all on-line courses are hybrid, but many of those not officially noted as hybrid classes still have a need for students and faculty need to meet personally, in face-to-face sessions during certain times of the semester as part of the course work. These courses push up the number of on-line courses, while also placing a demand on campus physical plant, although not for large portions of the semester's schedule. The current space utilization data does not completely capture this classroom use. The goal is to capture this data in the future scheduling and data management tools.

Finally, many students, including those taking strictly on-line courses, are physically on campus doing their on-line class work. These students take advantage of the robust technology infrastructure on campus which is faster, more reliable, and more affordable internet access than they may have at home. These students are in campus student unions, open labs, and library spaces. This phenomenon exerts pressure for more on-campus space, such as learning resource centers, technology services, computer labs, and group study areas.

System Physical Plant and Facilities Observations:

- Minnesota's public higher education system is not over built in terms of the number of campuses when compared to states with similar geographic and population density numbers.
- Campus numbers are a key element in access to higher education. In terms of geography and population, Minnesota's higher education system covers a greater area and each campus services a larger portion of the state's population in comparison to Wisconsin, Iowa and Tennessee.
- Minnesota State Colleges and University facilities and systems are growing older, requiring additional renewal and upgrade.
- The demand for higher education in Minnesota is forecast to grow in the future.
- Minnesota State Colleges and Universities is critical to meeting that growth, capturing the vast majority of the historical enrollment growth. The majority of the expected future growth is also in the metropolitan area.
- While FYE serviced by on-line education is growing, it is not reducing the demand for physical on-campus space.

CAPITAL BUDGET

Background: The Board of Trustees, as stewards of the System's real estate and physical plant assets, is charged with the responsibility to operate, maintain and update existing campus space to meet the effective and efficient delivery of higher education; construct new space where program needs warrant; and reduce where space is no longer effective or needed.

In meeting these responsibilities, the Board has put in place procedures to generate, review, assess, and prioritize capital requirements for recommended funding as part of the state's capital budget program. The capital requests are made up of two elements, higher education asset preservation and replacement (HEAPR) and line-item capital projects. Figure 11 provides a history of the Systems request and actual funding for capital projects.

Figure 11. Minnesota State Colleges and Universities Capital Budget Program History

\$ in millions	1998	2000	2002/03	2004/5	2006	2007	2008	2009	2010
Total Capital Requested	\$214.4	\$230.0	\$268.4	\$292.6	\$280.4	\$33.8	\$350.2	\$117.1	\$396.8
HEAPR	\$91.0	\$100.0	\$100.0	\$100.0	\$110.0	\$30.0	\$110.0	\$50.0	\$110.0
Capital Projects	\$123.4	\$130.0	\$168.4	\$192.6	\$170.4	\$3.8	\$240.2	\$67.1	\$286.8
Total Enacted	\$143.1	\$131.1	\$218.6	\$213.6	\$191.4	\$0.0	\$234.2	\$40.0	\$106.2
HEAPR Enacted	\$43.0	\$30.0	\$60.0	\$41.5	\$40.0	\$0.0	\$55.0	\$40.0	\$52.0
Capital Projects	\$100.1	\$101.1	\$158.6	\$172.1	\$151.4	\$0.0	\$179.2	\$0.0	\$54.2

Source: Office of the Chancellor Facilities Planning

Over the last 7 biennia, the Board has recommended a capital budget request averaging \$312 million/per biennium made up of \$114 million in HEAPR and \$198 million in capital projects.

Combined action by the legislative and executive branches has provided approximately \$182 million per biennium, or 59% of the System request. On average, HEAPR has been funded at \$52 million per biennium or 45% and capital projects have been funded at roughly two-thirds of the request or \$131 million per biennium.

During this period, capital projects have impacted nearly 5 million square feet of facility space. Slightly more than 3 million square feet, or just over 60% of the facility space impacted has been renovation work. (This does not include renovation work done with HEAPR funds.) Finally, just under 2 million square feet, or slightly less than 40% of the impacted facility space has been new construction.

Capital Investment Comparisons: Data for direct comparison of capital investments is scarce. The College Plan and Management publication, Volume 14, Issue 2, February 2011, pulls data from all states and all public and private higher education systems. They report figures regionally, with Minnesota, Wisconsin and Illinois making up Region 7. In 2005, Region 7 was ranked 4th of the 12 regions in overall expenditures, with Minnesota State Colleges and Universities capital investments accounting for 19% of the region's total. In 2010, the region was ranked 7th in overall expenditures, with System capital investments shrinking to 14% of the total.

Nationally, trends have been towards new construction. In 2004, 80% of the reported \$13.7 billion investment in capital investment programs nationally was directed towards construction of new foot print. In 2010, 76% of capital investment programs nationally was directed towards construction of new foot print. Compared to national averages, the System is much more focused on renovating existing facility spaces with renovation being approximately 60% of the work and new construction being 40%.

Capital Budget Planning – FRRM and Sources: Budget planning begins with output from FRRM. Figure 4 indicates a 5-year renewal requirement of \$461 million which means that the System needs to invest \$92.2 million annually or \$184.4 million in a biennium to “keep up.” Investments are also needed to “catch up” by addressing the \$750 million deferred maintenance needs. It is unrealistic to expect to address the entire backlog in requirements all at once; however it is prudent to set a goal to reduce this backlog by 50% over the next 10 years. The Board has endorsed this strategy in past capital budget cycles. To reduce the backlog to roughly \$375 million by 2022, the System needs to commit \$37.5 million annually or \$75 million in a biennium towards deferred maintenance. Therefore, to ‘keep up’ and ‘catch up,’ meaning to reduce the maintenance backlog by 50%, the System needs approximately \$259 million per biennium to address current physical plant needs. Capital investment to address program growth would be additive to this planning figure.

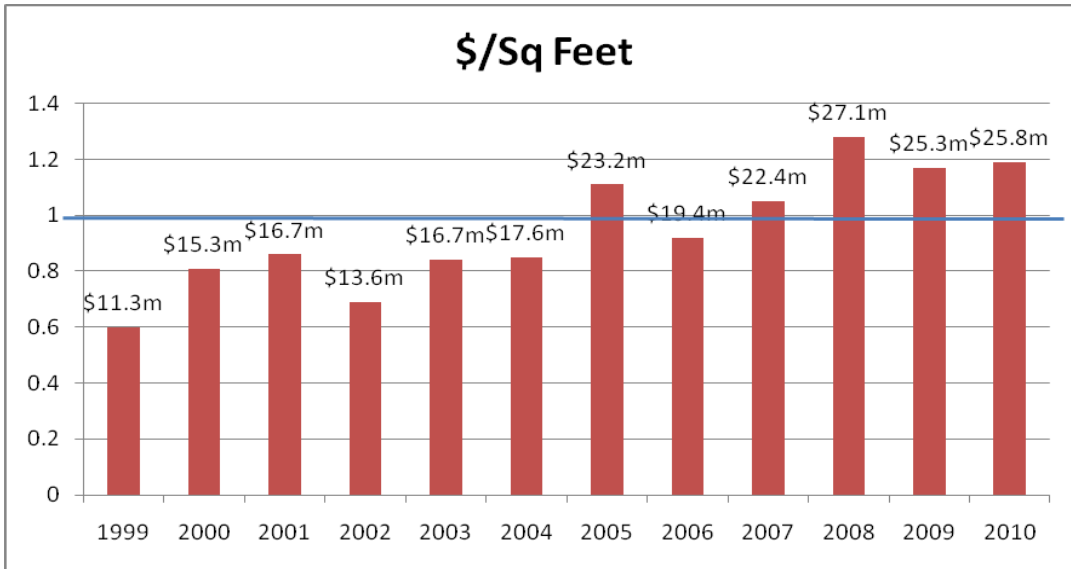
Applying a fixed percentage of the current replacement value is another model for scoping facility investment needs. The fixed percentage varies by facility type and use. At one time, the Society for College and University Planning (SCUP) recommended 1.5% to 2.5% of CRV. With the System CRV of \$6.9 billion, it would require between \$103.5 million and \$172.5 million annually or between \$207 million and \$345.0 million in a biennium for facility needs.

Others apply straight-line depreciation over the useful life of the plant to generate a very rough planning figure for facilities needs. Assuming the useful live for facilities and internal systems range between 40 and 60 years yields annual facility needs of \$115 million and \$172.5 million or \$230 million and \$345 million over a biennium.

Each of the above approaches yields a similar conclusion. The system should be investing at the rate of \$250 million to \$350 million each biennium in order to preserve and maintain the physical assets.

Capital Investment Funding From Campuses: There are three principal funding sources for facilities work, HEAPR and line-item capital projects in the capital bonding request and operational funds in general appropriations. Campuses must invest local funds for smaller repair and replacement needs to maintain their physical plant. In 2004, the goal of locally investing \$1 per square foot of academic space was adopted. Since then there has been consistent improvement in the amount of operational dollars spent by campuses. In 2010, \$25.8 million was spent by campuses for repair and replacement, averaging \$1.19 per square foot for academic spaces.

Figure 12. Campus Facility Investments Trends



Source: Office of the Chancellor Facilities Planning

Capital Budget Planning Factor - Debt Capacity: Beginning in 1991, the Minnesota State Colleges and Universities was required by session law to pay one-third of the debt service for capital projects funded by state general obligation bonds. Only the University of Minnesota and the Minnesota State Colleges and Universities have this requirement within the state bonding process. The State of Minnesota pays the balance.

In 1996, the Board determined that one-half of this debt service (one-sixth the project cost) would be passed on to the individual institutions receiving the benefit of the capital appropriation with the remaining one-half of the debt service (one-sixth the project cost) being absorbed by the System. Thus, the one-third debt service is internally funded using primarily general fund appropriations and tuition revenues. HEAPR projects do not incur debt for the system or campuses.

After consultation with state debt guidelines, the System adopted the conservative standard of 3% of operating revenue as the ceiling for debt service at both the institution and System levels. This standard was chosen as a modest and limiting impact on operating budgets, and parallels the state's historic guideline.

In December of 2009, Minnesota Department of Management and Budget changed their approach to debt with the publication of "*Capital Investment Guidelines*." Their intent was to align the guidelines with the measures used by credit rating agencies and to allow for better comparison with other states. The new State of Minnesota capital investment guidelines are:

1. Total tax-supported principal outstanding shall be 3.25 percent or less of total state personal income.
2. Total amount of principal (both issued and authorized but unissued) for state general obligations, state moral obligations, equipment capital leases, and real estate capital leases are not to exceed 6 percent of state personal income.
3. Forty percent of general obligation debt shall be due within five years and 70 percent within 10 years, if consistent with the useful life of the financed assets and/or market conditions.

These guidelines are applied at the state level by MMB and the legislature. Guidelines 2 and 3 are outside the System's control since MMB structures and manages all general obligation debt, including that for System projects. Guideline number 1 above is not easily translated into the System's environment since state personal income doesn't directly relate to our revenue basis.

In our debt modeling, the current System standard of 3% is tested over the 20-year life of the bonds. The model is conservative. On the debt side, it incorporates current debt and assumed new debt service on \$250 million in capital projects in year 2012 with capital projects increasing by \$10 million in each biennium thereafter. As a note, in the last ten years, the most the System has received in capital projects is \$179 million, this occurred 2008. On the revenue side, the model has in the past, assumed a 1% growth in revenue in 2012 and 2013 and a conservative 3% growth for FY2014 and beyond.

For this report, more conservative revenue growth options were examined; specifically a flat-line assumption with zero-growth in revenue over the period and an alternative modeling 1% growth in FY2012 and 2013 and thereafter. With all other variables remaining the same, annual debt service to the System peaked at \$81.1 million with debt-to-revenue ratios of 5.34% for the zero-growth model and 4.12% in the 1% model.

Testing the 1% model with varied initial FY2012 capital project programs ranging from \$150 million to \$200 million and increasing them by \$10 million in each biennium drove System annual debt service peaks to \$55.8 million and \$68.7 million respectively. Similarly, the maximum debt-to-revenue ratios shrank to 2.84% and 3.49%

Finally, in an attempt to replicate conditions faced today 1) large volume of candidate capital projects from legislative and executive actions in FY2010 (\$287.6 million) and 2) the favorably construction and bonding environment. A model with a one-time \$250 million capital project load was introduced in FY2012, then capital project totals were returned to \$150 million in FY2014, with \$10 million increases per biennium after that. In this scenario, System annual debt service peaked at \$53.3 million with a debt-to-revenue ratio of 2.71.

Figure 13. Annual Debt Service and Debt-to-Revenue Results

Modeled Annual Revenue Growth	FY2012 Capital Project Budget	FY 2014 Capital Project Budget, growing \$10M per Biennium	System Peak Annual Debt Service	Peak Debt-to-Revenue Ratio
0%	\$250M	\$260M	\$81.1M	5.34% (2037)
1%	\$250M	\$260M	\$81.1M	4.12% (2037)
1%	\$150M	\$160M	\$55.8M	2.84% (2037)
1%	\$200M	\$210M	\$68.7M	3.49% (2037)
0%	\$250M	\$150M	\$53.3M	3.51% (2037)
1%	\$250M	\$150M	\$53.3M	2.71% (2037)

Source: Office of the Chancellor Finance and Facilities Modeling Tool

Currently, individual college and universities' average debt-to-revenue ratios range from 0.06% to 1.32%. Only six colleges are above 1.0%; all universities are below 1.0%. For FY2012-2017 capital budget planning, each campus must confirm their ability to pay the debt obligation.

Capital Budget Observations:

- The System has historically received substantially less than it requested for capital requirements, 40% less overall, more than 50% in HEAPR and 33% less in capital projects
- The System requires on the order of \$250-\$350 million in a biennium to address current physical plant needs to 'keep up' and 'catch up' and preserve the value of the physical assets.
- Addressing System growth is additive to the \$250 million figure.

- The System has put greater priority on renovation over new construction when compared the national averages.
- Emphasis of campus investment and setting a goal of \$1.00 per square foot has had a positive impact and should be continued.
- Based on very conservative modeling, the System has the debt capacity to handle a capital project request of between \$150 million and \$250 million in 2012 and \$150/biennium thereafter. This would be in addition to a HEAPR requirement of \$110 million, producing a total capital budget request of \$260 million to \$360 million.
- There is flexibility to meet current capital needs with smaller future capital requests.

RECOMMENDATIONS FOR FY2012 CAPITAL PLANNING

Limited capital funding in FY2010 coupled with new and emerging capital requirements to address deferred maintenance backlog, renewal needs, and student growth has created large demand for capital investment. The likelihood of a capital bonding bill in FY2011 is in question. Economic conditions in the design and construction sectors and in the financial markets make now one of the best times to pursue construction work. The following proposal is under consideration in the event there is not a FY2011 bonding bill. The Chancellor's proposal would change if pending MnSCU projects are authorized yet this legislative session.

The Chancellor is considering the proposal of a FY2012-2016 capital budget request that:

- Totals on the order of \$350 million in capital requirements
 - \$110 million for HEAPR
 - \$240 million for capital projects
- Following FY2012 Guidelines, priority would be given to work that best addresses:
 - Deferred maintenance and renewal of existing spaces;
 - Better utilization of existing facilities to meet academic and workforce needs through space realignment, reconfiguration, and demolition
 - Supports new footprint meeting demonstrated need for:
 - Science space, and
 - Student population growth, particularly in the metro area.

Staff is interested in feedback from the committee concerning the above planning parameters. There are strong analytical, capacity and demand arguments for the strategy suggested above. Based upon the committee's direction, staff will return to the Board in June with a final FY2012-FY2016 program recommendation. The Board's recommendation to the Governor is due to MMB by the end of June, 2011.

Date Presented to the Board of Trustees: April 20, 2011

Public Institutional Names and Campuses

Minnesota: 13 state universities and 25 two-year community and technical colleges resulting in 60 campuses

Minnesota State Colleges and Universities -

Alexandria Technical College, Alexandria

Anoka Technical College, Anoka

Anoka-Ramsey Community College, Coon Rapids, Cambridge

Bemidji State University, Northwest Technical College Bemidji

Central Lakes College, Brainerd, Staples

Century College, White Bear Lake

Dakota County Technical College, Rosemount

Fond du Lac Tribal and Community College, Cloquet

Hennepin Technical College, Eden Prairie, Brooklyn Park

Inver Hills Community College, Inver Grove Heights

Lake Superior College, Duluth

Metropolitan State University, St. Paul

Minneapolis Community and Technical College, Minneapolis

Minnesota State College - Southeast Technical, Red Wing, Winona

Minnesota State Community and Technical College, Detroit Lakes, Fergus Falls, Moorhead, Wadena

Minnesota State University Moorhead, Moorhead

Minnesota State University, Mankato

Minnesota West Community and Technical College, Canby, Granite Falls, Jackson, Pipestone, Worthington

Normandale Community College, Bloomington

North Hennepin Community College, Brooklyn Park

Northeast Higher Education District, Vermilion Community College, Ely

Northeast Higher Education District, Mesabi Range Community and Technical College, Eveleth and Virginia

Northeast Higher Education District, Itasca Community College, Grand Rapids

Northeast Higher Education District, Hibbing Community College, Hibbing

Northeast Higher Education District, Rainy River Community College, International Falls

Northland Community and Technical College, East Grand Forks and Thief River Falls

Pine Technical College, Pine City

Ridgewater College, Hutchinson, Willmar

Riverland Community College, Albert Lea, Austin, Owatonna

Rochester Community and Technical College, Rochester

Saint Paul College, St. Paul

South Central College, Faribault, North Mankato

Southwest Minnesota State University, Marshall

St. Cloud State University, St. Cloud

St. Cloud Technical College, St. Cloud

Winona State University, Winona

University of Minnesota (extension sites not included in overall count)

Minneapolis Campus

St Paul Campus

Duluth Campus

Morris Campus

Crookston Campus

Rochester Campus

Wisconsin: 14 state universities, 13 community colleges and 16 district technical colleges resulting in 86 campuses

UW Madison (extension sites not included in overall count)

UW Superior

UW Parkside

UW Plateville

UW Oshkosh

UW River Falls

UW Green Bay

UW La Crosse

UW Stevens Point

UW Stout

UW Milwaukee

UW Whitewater

UW Eau Claire

UW Extension site

UW Central

Barron County Community College

Marathon County Community College

Mariette Community College

Marshfield/Wood County Community College

Richland Community College

Baraboo/Sauk County Community College

Fond du Lac Community College

Fox Valley Community College

Manitowoc Community College

Sheboygan Community College

Washington County Community College

Waukesha Community College

Rock County Community College

Chippewa Valley , Eau Claire, West Gateway ,Chippewa Falls , Menomonie, River Falls

Western , La Crosse, Masuton, Independence, Viroqua, Tomah, Sparta, Black Forest Falls

Southwest WI, Fennimore

Madison Area, Truax, Downtown, Tech Center, Watertown, Fort Atkinson, Reedsburg, Portage

Blackhawk, Janesville, Transportation Center, Monroe, BTC- Airport

Gateway, Kenosha, Transportation Center, Racine, Elkhorn, Sturtevant

Waukesha Co, Pewaukee, Waukesha

Milwaukee Area, Downtown, West Allis, Mequon, Oak Creek, Aviation Center

Moraine Park, Fond du La, Beaver Dam, West Bend

Lakeshore, Cleveland

Fox Valley, Appleton, Oshkosh, Aviation Center

Northeast WI, Green Bay, Marinette, Sturgeon Bay

Mid-State, WI Rapids, Stevens Point, Marshfield

North Central, Wausau, Antigo

Nicolet Area, Rhinelander, Minocqua

WI Indianhead, Ashland, New Richmond, Rice Lake, Shell Lake, Superior

Iowa: 3 state universities and 15 two-year institutions resulting in 76 campuses

University of Iowa

University of Northern Iowa

Iowa State University

Northeast Iowa Community Colleges Calmar Campus, Peosta Campus, Chickasaw County Center

Cresco Center

Dubuque Center for Education, Town Clock Center for Professional Development

Regional Academy of Math and Science (RAMS) Oelwein Center, Waukon Center

North Iowa Area Community College, Main Campus

Iowa Lakes Community College, Algona Campus, Emmetsburg Campus. Estherville Campus, Spencer Campus, Spirit Lake Campus

Northwest Iowa Community College, Main Campus

Iowa Central Community College, Main Campus

Iowa Valley Community College District Ellsworth Community College, Marshalltown Community College, Iowa Valley Grinnell

Hawkeye Community College, Cedar Falls Center, Hawkeye Technology Access Center, Independence Center, Main Campus, Martin Luther King Jr. Center, Metro Center, Waverly Outreach Center, Western Outreach Center

Eastern Iowa Community College District, Clinton Community College, Muscatine Community College, Scott Community College

Kirkwood Community College Main Campus, Iowa City Campus, Marion Center, Benton County Center, Cedar County Center, Iowa County Center, Lincoln Center, Jones Regional Education Center, Resource Center, Tippie-Mansfield Center, Washington County Center

Des Moines Area Community College, Ankeny Campus, Boone Campus, Carroll Campus, Newton Campus, Urban/Des Moines Campus, West Des Moines Campus, DMACC Career Academy, Hunziker Center, Harding Hills, Iowa Building, Success Center, Transportation Institute

Western Iowa Tech Community College, Main Campus, Cherokee Campus, Denison Campus, Le Mars Learning Center, Mapleton Learning Center, Sioux City Learning Center

Iowa Western Community College, Council Bluffs Campus, Clarinda Campus, Cass County Campus, Page/Fremont County Campus, Shelby County Center

Southwestern Community College, Main Campus, Red Oak Center, Osceola Center

Indian Hills Community College, Ottumwa Campus, Centerville Campus, North Campus, County Service Centers, Community Education Center

Southeastern Community College, Keokuk Campus, West Burlington Campus

Tennessee: 10 state universities and 13 two-year colleges resulting in 70 campuses

Austin Peay State University

East Tennessee State University

Middle Tennessee State University

Tennessee State University

Tennessee Technological University

University of Memphis

University of Tennessee, Chattanooga

University of Tennessee, Health Science Center

University of Tennessee, Knoxville

University of Tennessee, Martin

Chattanooga State Community College, Main Campus, Dayton Site, Eastgate Town Center, Kimball Site, Sequatchie/Bledsoe Site, East Campus

Cleveland State Community College, Main Campus, Athens Site, Vonore Site

Colombia State Community College, Main Campus, Williamson County Campus, Lawrence County Campus, Lewisberg Campus, Clifton Campus

Dyersburg State Community College, Main Campus, Gibson County Center, Jimmy Naifeh Center

Jackson State Community College, Main Campus, Savannah-Hardin County Center, Lexington-Henderson County Center, Humboldt Higher Education Center

Motlow State Community College, Main Campus, Fayetteville Center, McMinnville Center, Smyrna Teaching Site

Nashville State Community College, Main Campus, Cookeville, Humphreys County, Southeast Center, Dickson

Northeast State Community College, Main Campus, Elizabethton, Gray, Kingsport

Pellissippi State Community College, Main Campus, Blount County Campus, Division Street Campus, Magnolia Avenue Campus

Roane State Community College, Main Campus, Oak Ridge, Campbell County, Cumberland County, Fentress County, Knox County, Loudon County, Morgan County, Scott County

Southwest Tennessee Community College, Fayette Site, Gill Center, Macon Cove Campus, Maxine A. Smith Center, Millington Center, Union Avenue Campus, Whitehaven Center

Volunteer State Community College, Gallatin Campus, Livingston Campus

Walters State Community College, Morristown Campus, Greeneville Campus, Sevierville Campus, Tazewell Campus