

Docket Item:

10-Year Strategic Capital Plan Report Presentation

Summary:

Consultants from the HECC's contractors (SmithGroup and NCHEMS) will present their final Strategic Capital Development Plan Report. A summary of the report is included below.

Docket Item Material:

What were the Consultants asked for?

The HECC contract required the consultants to develop a strategic capital plan for the State of Oregon, leveraging proven comprehensive capital needs analysis and projected demographic trends. The plan should reflect a collaborative process for contemplating the holistic capital needs of the State and identify the best approach to achieving state goals. The plan should provide the HECC with both a forward-looking basis for capital prioritization.

This plan was not intended to supersede institutional planning efforts, nor was it a strategic effort to evaluate the relative strength of an institution and their specific project-based solutions for addressing statewide needs. The assessment of additional space needs was related to the alignment of potential new programs with issues of institutional role and mission and their relationship to state priorities.

What's in the Report?

Roughly 280 pages across four sections.

A – Executive summary – 22 pages outlining seven key findings and four specific recommendations. These are listed separately in the appendix.

B – Process overview and statewide summary of data – 51 pages. It includes information on:

- Population trends and characteristics
- Enrollment projections (using the student flow model – see the appendix for more information)
- The connection between educational supply and employment demand
- Facilities information (buildings, space, age of facilities, etc.)
- Facilities utilization and space analysis
- Space needs, a reconciliation between institutional estimates and consultants' estimates
- Research expenditures

C – Institutional Data – 197 pages. Includes many of the data elements presented in the statewide summary but for each institution.

D – Survey of national best practices – 14 pages. Includes information on surveys completed by twenty states on best practices related to statewide and institutional planning practices.

A review of each of the four recommendations.

1) Invest in capital improvement and replacement.

Key findings include that the achievement of 40-40-20 is not dependent on significant investments in new capital facilities. The first priority of Oregon’s statewide capital plan should be to focus on the improvement and renewal of existing capital assets.

Data analysis and student flow models show that sustained resident enrollment growth is not likely due to statewide demographic projections over the next ten years. Oregon is unlikely to see long-term substantial growth in demand for postsecondary enrollment that by itself will justify new capital investments to serve more students. Regional variation is likely, especially in central Oregon which has been the fastest growing region of the state. The enrollment demand will likely reflect a reshuffling of students among institutions rather than substantial growth in total enrollments.

Regarding on-campus enrollment projections, there is a broad disconnect between institutional optimism and demographic realities. The collection of institutional projections do not sum to a realistic statewide total, and there is no consistency in the way in which projections are developed.

The comparison of institutional estimates and those informed by the student flow model are included in figure 1 using fall, full-time equivalent enrollment. This includes on-campus students only. Online students are excluded. Institutions are projecting enrollment growth of 19% through 2029 while the student flow model predicts 2% growth.

Figure 1: On-Campus Enrollment Projections through 2029*

	Current	Institution	Variance	Model	Variance
EOU	1,086	2,541	134%	1,131	4%
OIT	1,840	2,940	60%	1,954	6%
OSU - Bend	789	1,951	147%	811	3%
OSU - Main	23,267	28,414	22%	23,943	3%
PSU	17,599	19,173	9%	18,013	2%
SOU	3,180	3,520	11%	3,167	0%
UO	22,143	24,216	9%	22,359	1%
WOU	4,368	5,828	33%	4,571	5%
TOTAL	74,272	88,583	19%	75,949	2%

*As measured by full-time student equivalents in the fall term. The Institution column is the institution’s projection of its projected on-campus enrollment through 2029. The Model column is the projection of on-campus enrollment through 2029 as calculated by the Student Flow Model.

Modeling of student flows for improved college-going and retention rates does not significantly change the projection of space needs. No estimates currently exist for the impact the Student Success Act might have on these

rates. Modeling that includes a 5% increase in college-going and retention rates is included in the report for both the statewide and institutional perspectives. That modeling shows a much greater stability in year-to-year increases in enrollment for most institutions.

Analysis shows that although localized needs do exist, significant capacity issues do not. Figure 2 looks at a comparison of projected space needs for instruction based on institutional enrollment projections and those based on the student flow model. Overall, a space surplus of 8% is projected under the student flow model, although deficits are projected for OSU Cascades and PSU.

Figure 2: Space Projections through 2029 (Instructional Space)*

	Current	Institution	Variance	Model	Variance
EOU	197,710	264,802	-34%	169,791	14%
OIT	330,662	314,503	5%	223,145	33%
OSU - Bend	57,555	149,762	-160%	83,870	-46%
OSU - Main	3,281,064	3,058,321	7%	2,676,156	18%
PSU	1,494,414	1,877,527	-26%	1,798,097	-20%
SOU	416,751	365,525	12%	345,213	17%
UO	2,402,981	2,424,141	-1%	2,207,377	8%
WOU	431,490	518,965	-20%	422,816	2%
TOTAL	8,612,627	8,973,546	-4%	7,926,465	8%

* The instructional space needed at each institution based on the enrollment projections included in Figure 1. The Institution column is the calculation made by the consultants of space needed to support the enrollment defined by the institution’s projections. The Model column is the calculation of space needed to support the enrollment defined by the model’s projections.

Another key finding is that existing facilities have serious age, quality and suitability issues that compromise efficiency and effectiveness. Space assets at the universities are valued at roughly \$10.1 billion as defined by the current replacement value. Of the 861 university buildings, the age of about a quarter of them is unknown. For those that the age is known, about 32% are older than 50 years with almost half over 30 years old. Most major building systems are designed for the 30-40 year range. About 30% of the buildings have been renovated.

While significant investments have been made by the state, there is a backlog of deferred maintenance estimated at \$480M. Given the age and number of renovated buildings in the portfolio, there is a clear need for renewal and replacement as reinforced by on-site observations during campus visits.

Space analysis supports the conclusion that the majority of classrooms are not well suited to accommodate new instructional modalities. Active learning classrooms require 25-35 assignable square feet per student while the existing statewide average is 19. The capital renewal of existing buildings offer not only enhanced effectiveness in program delivery but also greater efficiency in operational costs.

Overall, the recommendation is to focus on investments related to improving the quality and suitability of existing facilities. Qualitative issues exist for a variety of reasons, which include building and repair backlog, building code changes, accessibility issues, changing pedagogy and evolving program needs. As part of a stewardship model of managing assets, renewal can also improve student services and learning effectiveness.

2) Incentivize collaboration and shared or online programming in order to reduce the demand for new space.

A key finding is that there are statewide occupational needs in health and STEM-related fields. A common problem in linking employment demand with postsecondary credentials is that programmatic areas can be loosely coupled. For example, many liberal arts majors often settle in to careers outside their academic area. Therefore, it is most useful to look for broad patterns that do not promise false precision.

Given the analysis conducted, there appear to be broad demands for graduates in fields like computer and information technology, health care and education. Data also suggests the largest demand is in business fields although these jobs often wind up filled by graduates from other programs (like liberal arts). More specific detail by institution can be found in the institutional data section of the report.

Another key finding is that it is unclear the presence of any program gap identified should result in the development of new programs given the potential for alternative or collaborative program delivery. Furthermore, utilization analysis shows some room for growth though specific program areas may need localized attention.

Overall, the campuses had a collective surplus of 9% in academic and academic support space. It may need to be repurposed or reconfigured to more effectively achieve student success. Statewide, classrooms are scheduled for an average of 24 hours per week compared to a recommended 36 hours per week for research universities and 30 hours per week for regional universities.

3) Define institutional role and mission with more clarity.

A key finding is that the institutional roles and missions are not well defined. They lack clarity; and for some institutions, additional space needs depend on this. This is particularly true for OSU – Cascades where the ambiguity about mission makes the determination of space needs particularly difficult. As a regional teaching institution, it lacks instructional capacity at the baccalaureate level. But attendant needs for research space are dependent on mission.

The same questions might be raised about the extent to which PSU should be focused on research or whether WOU should have a health care focus. Therefore, an effort should be undertaken to more rigorously define missions of the institutions including the assignment of:

- Audiences to be served – geographic, selectivity, etc.
- Arrays of programs to be offered – levels and academic fields, particularly professional fields

- Unique roles – land grant, health sciences, minority serving, etc.

4) Improve and enhance statewide and institutional capital planning practices.

A key finding is that existing statewide and institutional capital planning practices are not aligned with best practices. An overwhelming majority of the 20 states surveyed responded that a facilities inventory was required followed by a facilities condition assessment and a classroom utilization study.

Other recommendations related to planning practices include:

- **Embrace a broader definition of capital investment.** A narrow focus on the creation of physical assets can overlook the need to demolish obsolete facilities. Demolition options should be considered.
- **Add professional facilities staff at the HECC.** Given the magnitude of state investment, this will enable the HECC to better support the mission and engage with professionally staffed research institutions.
- **Require facility space inventories and develop utilization standards.** The development and maintenance of a room-level inventory is a clear best practice and should be a prerequisite for capital funding.
- **Develop and maintain facility conditions assessments.** This is a clear best practice and should include an assessment of the suitability of the facility for academic program delivery.

Appendix – Findings, Recommendations and Analysis

Key Findings

- Achieving 40-40-20 is not dependent on significant capital investments (*in new facilities*).
- Enrollment history and future demographics do not forecast statewide capacity issues.
- There are statewide occupational needs in health and STEM-related fields.
- Analysis indicates room for growth with existing facilities although specific program areas may need localized attention.
- Existing facilities have serious age, quality and suitability issues that compromise efficiency and effectiveness.
- Institutional role and mission are not well defined. They lack clarity; and for some institutions, additional space needs depend on this.
- Statewide and institutional capital planning practices are not aligned with best practices.

Recommendations

- Invest in capital improvement and replacement.
- Incentivize collaboration and shared or online programming in order to reduce the demand for new space.
- Define institutional role and mission with more clarity.
- Improve and enhance statewide and institutional planning practices:
 1. Embrace a broader definition of capital investment.
 2. Add professional facilities staff at the HECC.
 3. Require facility space inventories and develop utilization standards.
 4. Develop and maintain facility conditions assessments.

Explanation of Analysis and the Student Flow Model

This plan uses the state's workforce investment areas to draw regions that define each institution's primary service area, and then uses those regions to assess the extent to which demand for enrollment will come from students in those areas as well as to assess the extent to which employment demand can be best met with what array of academic programs.

The project team analyzed a wide array of data addressing population trends and projections, expected enrollments from traditional student enrollment pipelines (including out-of-state and adult enrollments), and potential improvement in retention rates.

The project team modeled enrollment impacts of potential changes at the state level and for each campus using a heuristic tool called the NCHEMS Student Flow Model. The data for the model relied on each institution's enrollments traced to students' county of origin. Scenarios of likely future enrollment took three forms for each institution (including OSU – Cascades), all of which were based on projected population change by age for the primary service area defined for each institution.

The three forms of projections included models that:

- Assumed all most recently measured rates of recruitment and retention would remain constant.
- Assumed an across-the-board five percent increase in the most recently measured rates of recruitment and retention.
- Estimated the across-the-board percentage increase in recruitment and retention rates that would be needed for each institution to reach its own enrollment projection for 2030.

Space models were also created for each institution using room level facility data, linked to enrollment, staffing and course data. The models were constructed using nationally recognized space planning guidelines and informed by the consultants' extensive experience and benchmarking data.

Linking these datasets allowed for the creation of utilization statistics for classrooms and teaching laboratories.

Staff Recommendation

Discussion only.