PORTFOLIO WORKPLACE AND SPACE OPTIMIZATION STUDY FOR THE STATE OF OREGON
# Table of Contents

<table>
<thead>
<tr>
<th>Section</th>
<th>Pages</th>
</tr>
</thead>
<tbody>
<tr>
<td>EXECUTIVE SUMMARY</td>
<td>2</td>
</tr>
<tr>
<td>E.1 Executive Summary</td>
<td></td>
</tr>
<tr>
<td>E.2 Priority Recommendations</td>
<td></td>
</tr>
<tr>
<td>PROJECT GOALS &amp; BACKGROUND</td>
<td>3</td>
</tr>
<tr>
<td>1.1 Project Goals &amp; General Approach</td>
<td></td>
</tr>
<tr>
<td>1.2 Key Insights</td>
<td></td>
</tr>
<tr>
<td>BENCHMARK</td>
<td>4</td>
</tr>
<tr>
<td>2.1 Public Sector Best Practices</td>
<td></td>
</tr>
<tr>
<td>2.2 Private Sector Best Practices</td>
<td></td>
</tr>
<tr>
<td>FINDINGS AND WORKPLACE TRENDS</td>
<td>5</td>
</tr>
<tr>
<td>3.1 Observation Study</td>
<td></td>
</tr>
<tr>
<td>3.2 Findings</td>
<td></td>
</tr>
<tr>
<td>DESIGN GUIDING PRINCIPLES</td>
<td></td>
</tr>
<tr>
<td>4.1 Trends</td>
<td></td>
</tr>
<tr>
<td>4.2 Change Management</td>
<td></td>
</tr>
<tr>
<td>RECOMMENDATIONS</td>
<td></td>
</tr>
<tr>
<td>5.1 Recommendation</td>
<td></td>
</tr>
<tr>
<td>5.2 Guiding Principles</td>
<td></td>
</tr>
<tr>
<td>5.3 Application of Standards</td>
<td></td>
</tr>
<tr>
<td>5.3 Implementation of proposed standards</td>
<td></td>
</tr>
<tr>
<td>APPENDIX</td>
<td></td>
</tr>
<tr>
<td>A.1 Glossary of Measurements</td>
<td></td>
</tr>
<tr>
<td>A.2 GSA Case Study</td>
<td></td>
</tr>
<tr>
<td>A.3 State of Oregon Building Metrics</td>
<td></td>
</tr>
<tr>
<td>A.4 Other States Benchmark Data</td>
<td></td>
</tr>
</tbody>
</table>
Executive Summary

The State of Oregon is investigating ways to reduce real estate and facility occupancy costs and improve and enhance workplace performance and employee productivity. The State also would like to provide its employees with an appropriate mix of workspace alternatives that accommodate varying job functions and activities across and within agencies. To support this initiative, JLL developed recommendations associated with space utilization that will reduce costs, enhance the work environment, improve organizational and employee satisfaction, and promote the attraction and retention of talent. To facilitate the implementation of the recommendations, JLL worked with the State to identify new and/or improved policies and practices and developed a programming toolkit in support of implementation. JLL also outlined industry best practices to include new workplace standards and space options, automated analysis tools, and change management.

The study was initiated by the Office of the State Architect and was performed in close collaboration with leaders representing select agencies. Throughout the study, the analyses and recommendations were vetted through numerous workshops with the Facilities Committee Group and presentations to the Improving Government Steering Committee (IGST). The study has the following Major Objectives:

1. Develop strategies to reduce the State’s real estate footprint and occupancy costs
2. Improve user satisfaction and situate space as a tool to attract and retain talent
3. Identify the appropriate target utilization rate that reduces the State's overall footprint without compromising workplace effectiveness
4. Reduce unnecessary footprint and energy related to real estate use
Executive Summary

In support of the project’s Major Objectives, following is a summary of the Actions taken and the Results derived from analyses:

1. **Develop strategies to reduce the State’s real estate footprint and occupancy costs.**
   **Action:** Conduct a space utilization study (based on floor plans provided by the State)
   **Result:** Identified densification opportunities and recommended new policies governing space actions.

2. **Improve user satisfaction and situate space as a tool to attract and retain talent.**
   **Action:** Conduct a benchmarking study comparing the State’s space standards, policies and practices to public and private sectors peers.
   **Result:** Identified workplace improvement opportunities that will enhance productivity, improve employees’ satisfaction with space and the State’s ability to attract and retain talent. Recommended workplace standards that support new ways of working that will improve individual and team productivity.

3. **Identify the appropriate target utilization rate that reduces the State’s overall footprint without compromising workplace effectiveness.**
   **Action:** Analyze the State’s average space utilization and compare to industry standards, best practices and peer comparators.
   **Result:** Recommended adoption and policy enforcement of a new space utilization target range of 155 - 170 useable square feet (USF) per seat to include individual, collaboration and support spaces.

4. **Reduce unnecessary footprint and energy related to real estate use.**
   **Action:** Create a programmatic planning and scenario analysis tool that incorporates recommended collaboration and support space standards and facilitates agency’s ability to customize programs and spaces according to their specific need.
   **Result:** Recommended an implementation framework supporting business case development and justification of space requirements.
Priority Recommendations

JLL’s priority recommendations of actions for the state to take to meet its overall objectives is as follows:

a. **Adopt and enforce a new space utilization target**
   - Space utilization of 155-170 USF per seat
   - Establish policy for dealing with specialty spaces that fall outside of standard classifications (labs, exam rooms, locker, etc.)

b. **Require business case analysis for all new space acquisitions and for renewals/expansions greater than 10,000 RSF where current utilization is greater than 200 USF.**
   - Evaluate costs associated with making space compliant with the 155-170 USF target using standardized analysis tools and methodologies. In instances where the payback period is less than 10 years and/or where saving are over a certain dollar amount, require agency to comply with 155-170 USF target
   - Always evaluate feasibility of moving from leased to owned space
   - Provide agencies with incentives (i.e. purchase furniture, etc.) to achieve lowest possible utilization if payback period and savings targets can be achieved

c. **Find opportunities to BETA test new standards and target utilization and track and report financial impact and user satisfaction.**

d. **Establish standardized space categories and types to improve reporting and metrics**
   - Standards to address offices, workstations, conference rooms, storage and copy areas, etc.
   - For all newly renovated spaces, require agencies to use dimensions for each space category that are compliant with standards

JLL’s priority recommendations of actions for the state to take to meet its overall objectives is as follows:

e. **Analyze the most cost effective way to implement enterprise-wide space management technologies**
   - Can data be aggregated from existing systems, or are new investments required?
   - Integrate HR system so that FTEs can be tracked to office location
   - Beta test sample of portfolio before implementation

f. **Create a governance program for the management of occupancy data across the portfolio**
   - How and when data is captured
   - Who captures the data
   - Who has access to the data
PROJECT GOALS AND BACKGROUND
Project Goals and Outline
The State of Oregon Department of Administrative Services (DAS) conducted an analysis of their real estate portfolio in an effort to:

- Optimize its real estate footprint & space utilization
- Implement best-in-class space management practices and governing policies.

Primary goals identified at the outset of the project were to develop strategies that:

- Reduce DAS’s overall occupancy costs
- Propose utilization rates that reduce the State’s overall footprint without compromising workplace effectiveness
- Provide recommendations for workplace standards that support new ways of working, improves user satisfaction and situates space as a tool to attract and retain talent
- Improve individual and team productivity
- Decrease energy consumption related to real estate.

General Approach
Following are the major activities associated with this project, which helped guide and inform recommendations:

- Evaluated the State’s space policies, standards and average square feet (SF) utilization rates and benchmarked against industry standards and public and private peer comparators.
- Identified workplace and portfolio trends and best practices
- Developed recommendations to improve the State’s overall use of space, addressing utilization rates, space standards, policies, implementation framework, and sustainability

Analysis of the Department of Administrative Services owned portfolio determined the building subset that was deemed appropriate for this project.

Nine buildings were identified as they represent approximately 80% of Gross Square Feet (GSF) and headcount (HC) on a cumulative basis and are as follows:

- Agriculture Building (AGR)
- Human Services Building (HSB)
- Employment Building
- Executive Building
- General Service Building (GSB)
- Labor & Industries Building (L&I)
- Portland State Office Building (PSOB)
- Public Service Building (PSB)
- Revenue Building
Key Insights - General

A benchmark study was conducted comparing the State of Oregon against public and private sector peers including the GSA, Washington, California, Colorado, Tennessee, Utah, and 13 private organizations across the Financial, Technology and Consumer Sectors.

All enterprises surveyed are striving to make space optimization improvements within their portfolios, but findings show the GSA is the only public institution of those surveyed that has implemented aggressive USF/seat standards and high mobility strategies that are heavily enforced and backed by strict policies.

Findings indicate the State of Oregon currently has the highest average SF utilization target at 250 USF/seat, whereas peer comparator’s utilization targets range from 157 – 200 USF/seat. However, in assessing a sampling of nine buildings within the State of Oregon’s Department of Administrative Services owned portfolio, it appears some buildings, and floors within those buildings, are already achieving 200 USF/seat, and even much less. This inconsistency in space utilization is the result of a lack of discipline and policy around managing space standards.

Other key insights and observations include:

1) A multitude of different furniture standards;
2) Individual workspaces (i.e. offices and workstations) are not consistent in size or appearance
3) A general inconsistency in space utilization. Some buildings and/or floors, and areas within those buildings and/or floors, were observed to be much more efficient then elsewhere.

The State has the potential to realize significant benefits in overall efficiency and functionality by implementing a few best practices. For example, more rigor around upfront and detailed space planning, enabling mobility programs, providing different and more collaboration spaces, standardizing the number and kind of support spaces as well as individual workspace sizes, and improving natural lighting by eliminating offices along window lines and installing panels with lower heights.

Detailed improvement opportunities associated with overall and average utilization, policy change recommendations, implementation guidelines and a potential pilot program can be found in subsequent sections.
BENCHMARKING
BENCHMARK

Benchmarking Analysis

JLL conducted a benchmarking activity to compare workplace standards, practices and policies against public and private sector peers and discover lessons learned that can inform the state’s approach to workplace utilization, design and management.

Public sector peer comparators were provided an emailed questionnaire form which was followed up with phone interviews. Questions included: What is your portfolio square feet and how is it tracked (USF, RSF, GSF), utilization rates, percentage of portfolio that is centrally managed (versus by occupant agencies), and overall space standards and implementation strategies (if they existed).

Private sector participants are customers which JLL provides Occupancy Planning Services for and has access to relevant data, additionally a survey was sent out to our accounts polling them on current square foot metrics and space standards.

Who did we use to compare the State of Oregon

PUBLIC SECTOR PARTICIPANTS:
- States: California, Colorado, Tennessee, Washington & Utah
- US General Services Administration

PRIVATE SECTOR PARTICIPANTS:
- Financial Sector: 7 clients
- Technology Sector: 4 clients
- Consumer Sector: 2 clients
Oregon currently has the **highest SF utilization target** @ 250 USF/seat in comparison to any of the public enterprises or private sector organizations benchmarked.

All States benchmarked have either recently adopted or are considering new utilization targets and standards. All are at different points of implementation.

- **Tennessee** is the most aggressive at managing space and expects to derive the greatest cost savings
- **Washington** is in the process of implementing new standards and utilization targets
- **Utah** is still considering new standards

Only **Tennessee has centralized control of space**

- Other State’s DAS equivalent organizations manage transactions but do not control portfolio decisions and have different levels of authority to enforce standards.

US General Services Administration has the most aggressive utilization targets of any of the organizations benchmarked at 157 USF.

Despite having a wealth of knowledge about workplace issues, GSA had difficulty getting Agencies to adopt new practices until an Executive Order was issued to mandate the agencies reduce space.

- **At or below 170 USF/FTE in all new space allocations**
- **Will provide financial support for IT and furniture to agencies that agree to achieve a utilization of 155 USF /FTE or below**
Public Sector Study Findings

Policy and practices

Although all states aspire to follow their documented standards, and are sometimes required by law to do so, no state reported success in incorporating standards into legacy space. Similar to Oregon, many states were balancing whether their standards were enforceable or more of a guideline. Many states were also trying to reduce the number of offices, and create more open floor plan space. The private sector has been significantly more successful with this change in workspace type. By reducing office eligibility requirements, less offices would be needed, and more open office space could be created.

Tools and technology

Another challenge across the states was the lack of consistent data management. A few states did have a CAFM system or central database for housing updated floor plans, but maintaining accurate drawings and reporting on metrics was a general weakness. We have found that our clients in the private sector that do have a CAFM system, and utilize it consistently, are better able to make strategic decisions regarding their portfolio as they have a number of data points at their fingertips including vacancy, density, as well as numerous cross portfolio metrics. As a result many states were struggling to report on existing occupancy conditions and metrics in their building.

Revenue Building in Salem
### Comparison – State of Oregon vs. Peer States

<table>
<thead>
<tr>
<th>State</th>
<th>Centrally Managed Space</th>
<th>Current SF Utilization Target</th>
<th>Workplace Standards</th>
<th>Flexible Work Policy</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Oregon</strong></td>
<td>&gt;25%</td>
<td>250 USF/seat</td>
<td>Programing Standards Not enforced</td>
<td>Limited varies by agency.</td>
</tr>
<tr>
<td><strong>California</strong></td>
<td>N/A</td>
<td>Unknown</td>
<td>Managing standards for new implementation</td>
<td>Primarily for field workers</td>
</tr>
<tr>
<td><strong>Colorado</strong></td>
<td>60%</td>
<td>175 USF/seat 20% load</td>
<td>Managing standards for leased spaces</td>
<td>None</td>
</tr>
<tr>
<td><strong>Tennessee</strong></td>
<td>100%</td>
<td>175-200 USF/seat</td>
<td>Managing &amp; enforcing standards</td>
<td>None</td>
</tr>
<tr>
<td><strong>Washington</strong></td>
<td>20%</td>
<td>185 USF/seat 20% load</td>
<td>Require following Standards for project approval</td>
<td>Pilot only</td>
</tr>
<tr>
<td><strong>Utah</strong></td>
<td>40%</td>
<td>Unknown</td>
<td>Managing standards for new implementation</td>
<td>None</td>
</tr>
<tr>
<td><strong>Fed. Gov’t</strong></td>
<td>100%</td>
<td>157 USF/seat</td>
<td>Managing a USF target With freedom per location</td>
<td>Widely implemented varies by agency</td>
</tr>
</tbody>
</table>

*All information above is based on interviews with the respective organization*
Private Sector Study Findings

JLL sent out a survey to accounts that their Occupancy Planning team provides space data management for. Based on completed surveys received, JLL compiled the results to benchmark where a sample of Private Sector clients compared to the State of Oregon, here were the findings.

1. 60% of clients surveyed have **space standards** that they enforce on new build; *(75% for Technology sector, 100% for Consumer Products sector)*
   Outside of the surveyed companies we see the standards as a continued need.

2. All surveyed companies have **centrally managed data** through a CAFM system. Roughly 50% of them chargeback the space to individual business groups.

3. **USF per seat** for administrative office space ranges from 150 – 280. *The higher number comes from sites that have not been renovated to standards.*
   Outside of the surveyed companies we see the rentable square feet (RSF) per seat being targeted under 200 usf / per seat with further reduction coming from mobility*. 

4. 66% of surveyed companies have a **mobility program** that they’ve implemented in an effort to reduce vacancies and maximize space utilization.
   Mobility is the ability to work at other locations. It increases employee engagement & improves work-life balance.

5. Predominant **type of workstations** at surveyed companies include:
   - **Cube with Mid to Low Panel:** 50%
   - **Cube with High Panel (64in.):** 33%
   - **Benching with no panel:** 17% (used mostly in technology and financial sectors)
Private Sector Best Practices

1. **Centrally managed data**, for purposes of creating business intelligence needed to make informed portfolio decisions.

2. Space utilization **trending** from above 200 USF/HC to **below 200** USF/HC.

3. **Fewer space** standards using commonly divisible dimensions (*i.e. office = conf. rm.*)

4. **Increasing collaboration** space allocations while decreasing individual workspace size.

5. **Enforcing** updated **workplace standards** for all **new space** (acquisitions and renovations).

6. Providing areas for **flexible working** (or hoteling) in order to avoid second office/desk allocations.
Observation Study Findings

State of Oregon Existing Workplace: Facility Tours

JLL conducted facility tours of the 9 buildings being analyzed, totaling 1.2M SF. These tours were conducted from March 11th-13th 2015, and were facilitated by the local facility manager or internal real estate contact for each respective building.

The intent of these walkthroughs was to validate floor plans provided, confirm capacity of the buildings, and to collect observations on existing conditions, to document what was working well and where opportunities for improvement existed.

Buildings that were toured included:

- **Agriculture** at 635 Capitol Street NE, Salem
- **Human Services** at 500 Summer Street NE, Salem
- **Employment** at 875 Union Street NE, Salem
- **Executive Building** at 155 Cottage Street NE, Salem
- **General Service** at 1225 Ferry St SE, Salem
- **Labor & Industries** at 350 Winter Street NE, Salem
- **Portland State Office** at 800 NE Oregon, Portland
- **Public Service** at 240 Summer Street NE, Salem
- **Revenue** at 955 Center Street NE, Salem

Observation Summary

Support space inefficiencies included multiple size labs, oversized mailrooms, compartmentalized suites, limited conference rooms / meeting space, and numerous storage rooms.

Work space weaknesses included multiple office sizes, offices on the window perimeter, and numerous workstation sizes.

Building restrictions included poor circulation, odd building shape, and narrow column spacing.

**The following diagram evaluates each building based on the 5 categories listed:**
Observation Study Findings

**Efficiency and functionality of state space**

Positive observations include: standardized workstation size, minimal offices on window line, and low panel heights.

Examples of these positive observations include the Labor and Industries building. This building has already tested more Activity-Based open plan, reconfigured and reduced workstation size, lowered panel height, added additional open collaboration areas, and reduced filling space.

Negative observations observed include disjointed and compartmentalized floor plate layouts, multiple types of furniture within the same building, numerous storage areas, inefficient use of space, shortage of meeting space, and the Computer Aided Facility Management (CAFM) system for storing/managing building drawings is being underutilized.

**Areas of improvement**

The **State of Oregon capacity utilization** across the portfolio was observed at ~200 USF / seat. The buildings that had the highest capacity utilization were the Employment Building (166 USF/seat) and the Revenue Building (163 USF/seat). Particular floors within these buildings had better capacity utilization than other floors (due to recent renovations, L&I Building’s utilization capacity has significantly increased): The L&I Building, Floors 2, 3 and 4 range from 151-158 USF/seat; the Portland State Office Building, Floor 8 is 122 USF/seat; the Revenue Building, Floor 2 and 4 range from 128-148 USF/seat; and the Public Service Building, Floors 2 and 3 range from 130-140 USF/seat.

The buildings that had the lowest capacity utilization appear to be the **Agriculture Building** (246 USF/seat) and **General Service Building** (231 USF/seat). Similarly, particular floors within buildings had underutilized capacity to a greater degree: The Portland State Office Building, Floor 4 is 266 USF/seat, over double that of floor 8 (122 USF/seat); and the Agriculture Building, Floor 2 is 256 USF/seat.

*Agriculture Building in Salem*
Observation Study Findings

Wide Variation in Existing Workspace
State of Oregon’s facilities generally lack consistency in the size and allocation of space due to a wide variety of factors.

Observations include:
- Some buildings have open workspace:
  - Low panel heights
  - Smaller workstation size
- Spaces are disjointed and compartmentalized
- Multiple types of furniture
  - Both system and conventional types with varying panel heights.
  - No standard chair types
  - Inconsistent conference room set-ups
- No standard support spaces or support provisions.
  - Some personal printers and commercial printers in cube areas
  - Multiple Storage / Filling area on floors
  - Shortage of collaboration / small meeting space
State of Oregon Findings: Observation

Implications

- Inconsistent use of space
- Inefficient and ineffective use of space
- No common “look and feel”
- Difficulty finding meeting space
- Offsite storage more effective solution for storage needs
- No consistency in floor plan drawings or other document management

Data Systems

- Minimal accurate data about current space utilization in owned portfolio
- Little to no data about space utilization in leased portfolio
- Current CAFM system for housing building drawings is being underutilized and can house other agencies.
**Current Status**
JLL performed site validations on all 9 building analyzed, and observed the following conditions. Each building within the State of Oregon ranges in the number of office sizes. The range is higher than the other states average. It is also higher than the conglomerate of private sector companies.

**Best Practice**
A best practice to consider for office size is less than 4 different office sizes. Ideally sizes should be modular so they are easily changed as need evolves and if possible consider only using 2 sizes for maximum flexibility. The best practice size for offices in the private sector ranges from 100 to 150 SF. Companies surveyed were targeted to change their space to accommodate this guide.
**Current Status**

JLL also analyzed the workstation sizes at each of the 9 buildings as well. Workstation size varies within each building in the State of Oregon. However many buildings ranged within four or less typical sizes, which is better than the average of other states and also lower than the conglomerate of private sector companies.

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**Best Practice**

Five out of nine buildings are already within the best practice. Ideally sizes should be modular so they are easily changeable as need evolves. The State will need to consider if the functionality of the cube, the panel height and the furniture condition to assess the need to change or update the each building. A best practice size for workstations in the private sector ranges from 36 to 64 SF. Companies surveyed were targeted to change their space to accommodate this guide.
State of Oregon Utilization

JLL documented the Utilization rate for each building based on the walk-through findings. Buildings range from 208 to 380 SF per person.

Utilization / Efficiency rates per building can be increased by standardizing office and workstation space, versus multiple different types as documented in the previous slides.

JLL is proposing a more aggressive range of 155-170 USF/seat or less.*

The recommendation recognizes that there is not a one-size fits all solution, as specialty space and business requirements need to be taken into consideration.

Benefit

By adopting this more aggressive standard, the utilization of remaining buildings in the portfolio could significantly increase.

*See Recommendation Section for additional information on proposed range.
Key Insights on State Buildings

As previously mentioned, we observed a general inconsistency in space utilization. Buildings and/or the areas within it varied in efficiency.

Of the nine buildings evaluated, the average building utilization ranged from 157 USF/seat (HSB) up to 246 USF/seat (AGR). Generally, space utilization with new furniture would be more efficient than what was observed. However a few spaces were already doing quite well. Other than the workplace, we also observed the lobbies, entrances and basements. Three of the buildings we studied have average utilization rates that fall within the recommended range (155–170 USF/seat): HSB, Employment and Revenue Buildings. However these can still improve efficiency by reducing the personal workspace and increasing the collaboration space.

HSB has the lowest average building utilization despite the very large lobby and cafeteria on the first floor. The 1st floor average utilization is 225 USF/seat, skewing the building’s average utilization higher than it would be otherwise. Floors 3 and 5 have very low average utilizations of 139 and 132 USF/seat respectively, indicating that support and collaboration spaces may have been sacrificed to accommodate additional seats, impacting FTE ability to perform collaborative activities.

The Revenue Building had the next lowest building average utilization at 163 USF/seat, despite the 4th floor’s average utilization of 199 USF/seat. The 4th floor had a significant hard copy storage area, however, since the 2nd floor’s average utilization is extremely low at 128 USF/seat, it helped maintain an ideal building average utilization. The 2nd floor might be another instance where collaboration and/or support spaces may have been sacrificed to accommodate addition seats.

Following are floors that appear to have been densified, with a possible indication that support and collaboration spaces were sacrificed in order to accommodate a greater number of seats: Employment 1st fl., HSB fls. 3 and 5, PSOB floors 8 & 11, PSB floors 2 and 3, and Revenue Building 2nd fl.

Below is a list of the floors that are efficient where renovations will not lead to better utilization, but can lead to better mix of spaces to support the work. Also listed are floors with the best potential for improvement to achieve ideal utilization metrics and mix of spaces:

- Efficient floors within proposed utilization rates:
  - Employment Building floors 3-4, L&I floors 2-4, Executive Building floors 2-4, PSOB 6th fl., PSB 1st fl., GSB 1st fl., HSB 2nd fl. Revenue Building 1st and 3rd fls. However, we have not analyzed the mix of private and collaboration spaces to assess the ideal functionality.

- Inefficient floors presenting opportunities for reconfiguration:
  - PSOB fls. 1-2, 4-5, 9-10, Executive Building 1st fl., GSB 2nd fl., HSB 1st fl., L&I 1st fl., AGR fls. 1-2, PSB 4th fl., Revenue Bldg. 4th fl., and the entire Transportation Building (utilization ranges from 195-289 usf/seat).
Areas For Focus

Overall, the State of Oregon is aligned with many of its public sector peers with regards to revamping and updating space standards, actively working to implement more aggressive standards for new acquisitions and projects.

Target Utilization Standard

With regards to utilization, it appears that implementing a few standard best practices will make significant progress in the State's endeavor to optimize its real estate and space portfolio. One recommendation is associated with the adoption of a more aggressive target utilization. Analysis indicates the State of Oregon is well-positioned to set a more progressive target utilization of 155-170 USF/seat (see Section 4), especially considering the average utilization within certain buildings and floors is already achieving this.

Open Work Environment

Also, many peer states are working to reduce the number of enclosed offices with the intent of creating a more open workspace environment, facilitating achieving a more aggressive target utilization. The private sector has been very successful in implementing open work environments with shared enclosed spaces. By reducing or eliminating office eligibility requirements, less offices would be needed and more open office space could be created. It was observed that teams and agencies having senior leaders who voluntarily vacated their enclosed office and occupied a workstation instead, the concept tended to be much more well received than otherwise.

Workspace Allocation

Today the State assigns a seat to every state employee who performs business at that building. This results in some people having double office assignments. Through the use of technology, workers can have one space assigned as a primary home and then use shared space in other locations where they perform work. These programs are called ‘desk sharing or Mobility programs. These are also associated with allowing workers be more flexible with their work schedule and potentially use home as a work location besides the office. It is our recommendation the State considers the benefits associated such a program and determine if the concept might be of benefit to and for certain agencies given job functions. JLL’s benchmark study (described before) showed that some state organizations have assigned smaller “hotel” stations (under 36 SF) to employees that are in the field over 3 days a week (as an alternative to a full mobility strategy).
Findings

Areas For Focus (cont.)

**Policy Enforcement**

Although all states aspire to follow documented standards, most face similar issues to the State of Oregon. Many states are able to enforce standards when considering new space, but few are able to renovate spaces to ensure standard alignment. GSA was the only public sector organization that has been consistently been able to implement more aggressive space standards, and this is based on the fact that in order for a project to receive funding, it must follow the standards.

**Data and Systems Management**

A common challenge across all peer states is the lack of consistent data management, but consensus is there are advantages to tracking real-time changes in space within a CAFM system. That said, a few states have a CAFM system or central database to house updated floor plans, but have trouble maintaining accurate drawings and tracking changes. As a result, it seems many states struggle to report accurate occupancy conditions and metrics across facilities. The private sector organizations with CAFM systems seem to consistently produced accurate occupancy and vacancy reports and have the ability to compare data across the portfolio as needed. Clients who use a CAFM system, and utilize it consistently, are better positioned to make strategic decisions regarding their portfolio as they have a multitude of data points and metrics to guide decision-making including vacancy, density, as well as numerous cross portfolio metrics.
WORKPLACE TRENDS
Workplaces today respond to the needs of multiple generations in the workplace. New environments incorporate a more social and collaborative culture, in response to new work-styles in most industries. Traditional programing tools were not intended to support the complexity and unpredictability of these new work patterns. The workplace today must provide a variety of workspaces to address the changing needs of employees. The environment needs to respond to the demand for collaboration as well as the need for privacy and concentration. To resolve conflicts between collaboration and privacy, contemporary work environments enable users to move to the right environment designed for the particular task. These environments are often referred to as “activity based design” and they allow for maximum flexibility. Employees embrace new levels of personal freedom in spaces that are explicitly designed to support the particular task. Individual space is based on function, not hierarchy or grade.

Key principals of activity-based planning include allocating space based on how people work and are planned to support multiple activities, such as collaboration and concentration. Activity-based planning uses a common kit of parts and space dimensions to right-size current space guidelines & standards, increase shared support spaces across the organization, and understand the implications of mobile work.

For some time now, light has been a predominant feature in the workplace and this includes moving offices and other enclosed rooms away from perimeter windows, It also promotes lowering workstation panel height to provide better visibility across the floor and make better use of natural daylight. Sufficient support spaces that not only provide meeting spaces but also areas for socialization and personal breaks.
Workplace design trends – cont.

Collaborative spaces can be open or enclosed and will have varied furniture solutions to support different activities. In this digital world, it is increasingly important to include virtual collaboration, screen sharing, and idea whiteboards in these spaces to support decision making, team development, and innovation.

Environments designed to focus on the individual are increasing in importance. By removing barriers (lowering panels) and increasing transparency in the workplace, organizations promote awareness and increase accountability. These environments promote knowledge sharing and encourage movement and interaction.

Support spaces should be planned as shared spaces that can be modified over time as the needs of the users change. Rooms that can be furnished with mobile/stackable furnishings can allow for a variety of different uses.

The benefits of mobility include enabling higher utilization of work spaces; greater flexibility, which leads to a reduction of employees’ commute times, better life balance and overall creates greater engagement and retention.

These environments increase productivity by enabling employees to select the best work environment for their given assignment. By providing more dynamic work environments, employees are able to support multiple modes of work through creative use of assigned and shared spaces; and more emphasis on collaborative spaces. These environments allow workers to move around the office and collaborate with colleagues they would not otherwise see. This increases workforce engagement through autonomy of choice and experience, ultimately leveraging the real value of place as a catalyst for interaction.

Mobility plans require a continued investment in technology to ensure workers get the most efficiency out of their work day.
Workplace Models
The diagram below highlights three workplace models: the traditional cellular space, open plan and activity-based open plan. Today, we see less cellular space because it requires more space to provide privacy, yet hinders collaboration and idea exchange. Open plan environments were popular in the past few years because of cost and space savings, however this environment only supports collaborative work and often becomes a problem for concentration or privacy needs. In an effort to reduce these concerns, the workspace has become a mix of open and enclosed areas with most of the enclosed spaces used for privacy, concentration, and also collaboration. The newly found efficiency comes from the ability to choose the best environment for the task at hand.

In recent years most work environments are designed to increase collaboration between employees while providing spaces for privacy and heads down work.

All three workplace models can be used differently to provide more flexibility and choice. Instead of assigning one person per seat, other models involve mobility or shared spaces to reduce the space demand, while increasing the ability to provide more variety of support spaces.

<table>
<thead>
<tr>
<th>How space is PLANNED… (Staff have assigned / dedicated workspace)</th>
<th>… and how space is USED. (Staff share/move between workspaces)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cellular Space</strong></td>
<td><strong>Open Plan</strong></td>
</tr>
<tr>
<td>Fully assigned offices</td>
<td>Fully assigned open plan workstations</td>
</tr>
<tr>
<td>and/or high partition workstations</td>
<td></td>
</tr>
<tr>
<td><strong>Activity-based Open Plan</strong></td>
<td><strong>Hybrid Mobility</strong></td>
</tr>
<tr>
<td>Fully assigned open plan</td>
<td>Mix of unassigned and assigned workstations</td>
</tr>
<tr>
<td>workstations and support space</td>
<td>and support space</td>
</tr>
<tr>
<td><strong>Full Mobility</strong></td>
<td><strong>Full Mobility</strong></td>
</tr>
<tr>
<td>Fully unassigned workstations</td>
<td>Fully unassigned workstations and support space</td>
</tr>
</tbody>
</table>

Increasing Choice, Efficiency, Flexibility and Cultural Integration

300-250sf/person  250-200sf/person  200-150sf/person  150-100sf/person  100-50sf/person
Consider the following principles when designing or planning new work environments in the future. Each neighborhood should contain collaborative workspaces, open/informal meeting space, enclosed offices, enclosed focus rooms, phone booths, shared storage etc.

- Create neighborhoods as a home and make it easy to move from one neighborhood to another
- Locate enclosed elements away from perimeter whenever possible to provide better overall access to natural light.
- Provide visual connections between different areas within the neighborhood, e.g. between managers and teams
- Use the workplace to express team identity, zoning, and the intended purpose/activities for each space or zone.
- Use offices for management work styles as one way to ‘anchor’ their teams and make it easier to find colleagues
- Incorporate technology into collaboration spaces and shared support areas.
- Include branding and a space to personalize the neighborhood
Change Management

All projects should follow a change management project plan. Two thirds of all projects fail due to lack of structured support for change. **Key principles needed:**

- Projects must have a sponsor or leader that can support the change.
- Strategy and reason for change needs to be clearly defined. It’s better if it includes benefits and disadvantages.
- Change needs to be explained to all employees, through town halls or other communication methods.
- All users need an opportunity to express their fears and issues. These needs should be addressed by the project team and project sponsor.

Over 50% is directly attributable to people behaviors.

Best Practices in Change Management, Prosci
RECOMMENDATIONS
Guiding Principles

**Planning Guidelines**

**Benefit:** Guidelines provide the opportunity to adapt space to the users' specific needs while maintaining consistency. They provide planners and users with a menu of choices to achieve the desired target metric (170 SF per person).

Planning Guidelines Ensure:
- Consideration is given to the appropriate mix, type and quantity of spaces.
- Consistency and standardization of space provisions.
- Control of costs as space requirements are right-sized (i.e. spending less on capital, rent and operating expenditures).

- Portfolio discipline

**Key Categories are:**
- Modular Planning
- Flexible Work Areas
- Collaboration Space

**Flexible Work Areas**

**Benefit:** Provides flexibility for users that need to office at multiple locations while achieving maximum efficiency and utilization at all locations.

**Modular Planning**

**Benefit:** Provides a cost effective way to change space if and when needs change.

Modular plans allow for space use to be interchangeable and construction to be kept at a minimum.

**Collaboration Space**

**Benefit:** Provides more spaces to encourage spontaneous collaboration and social interaction which will lead to user engagement and productivity.
Planning Guidelines: Planning and Programing Tool

This tool was created to assist planning and programing needs. It will provide a guide to the variety of support and collaboration spaces that can then be verified or customized based on agencies special needs.

The tool is created for office / administrative work areas, not for special publicly attended spaces.

**Utilization between 155 - 170 USF / person**
- Types of space can be combined to address the users needs as long as the planned area achieves 170 USF or less per person

**Recommended space type allocations**
- 10% - 15% Hub/Support Space
  - Pantry
  - Copy Area
  - Hub/Social Areas
  - Storage
- 25% - 30% Collaboration/Meeting Space
  - Enclosed Conf. Rooms (1:50-1:150)
  - Small Private Meeting Rooms (1:20-1:30)
  - Open Collaborative Space (1:20)
- 50% - 65% Private Workspace
  - Workstations
  - Offices

* Snapshot of Planning Tool
Modular Planning: *Enclosed Workspace*

This recommendation is intended to maximize planning flexibility and reduce churn cost.
- It provides two enclosed room sizes: One large room is equal to two small ones.
- If needed a third space (equal to 1.5 spaces) could be considered as a medium size space.
- Using this module will allow parity between buildings and reduce construction costs when needs change.
- The furniture represented in the layout below is an example as furniture was not part of this study.
Modular Planning: **Open Workspace**

The following are the recommended sizes for the workstations / cubicles. The sizes are modular to accommodate incremental needs and organizational changes. The diagrams are just examples of the proposed sizes, the type of furniture was not part of this study.

Flexible work areas typically have a combination of different sizes to accommodate different users. Yet because they are not assigned, they don’t require storage capabilities.

Work setting with modular furniture options:
- 4’x6’ = 24 SF
- 6’x8’ = 48 SF
- 8’x8’ = 64 SF

**Note:** These workstation images are just examples. Exact design and layout of workstations will be coordinated with a furniture vendor in the future.
Flexible Work Areas: Employee Mobility

A flexible working environment will leverage the natural mobility of individuals and eliminates the need for second office / cube spaces.
The space will create areas that are shared by those who need to use the space on a temporary basis.
Examples are:
- Employees who manage teams across multiple buildings and have two offices assigned. Propose to provide one home-base and the other can be shared space where they have priority use based on seniority or activities performed.
- Employees who have a main location in a different building and need to spend the day in a different building due to meetings or other team activities.
- Employees visiting and or people from other agencies who need space to work and collaborate for the day.
The space requirement will be determined by programing the need for shared space, determined by the count of double offices as well as tracking the visitor use.

Candidates in this work environment spend 3 days or less at the location, have a laptop computer and would benefit from the flexibility.
- **Shared desks**, use a shared desk for daily activities.
- **Able to choose** from a variety of spaces, the work setting that suits their work style and the task at hand, enhances productivity.
- **Work settings** that enable people to **connect** and collaborate with their team members.
Collaboration Spaces: *Diversity*

The main objective is to reduce individual space in order to provide more shared and support spaces. This model provides choices for users to be most productive throughout the day.

**New work environment provides:**

- Increased private space for employees in workstations
- Improved privacy by introducing phone rooms
- Increased number of 4–6 people meeting rooms
- Increased number of 8–12 people conference rooms
- Increased informal collaboration spaces throughout

---

**New Work Environment**

<table>
<thead>
<tr>
<th>Offices</th>
<th>Workstations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conference Rooms</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Conference Rooms</th>
<th>Huddle Rooms</th>
<th>Phone Rooms</th>
<th>Open Teaming Areas</th>
<th>Social Spaces</th>
</tr>
</thead>
</table>

the workplace to increase ad-hoc meeting space

- Created “Hub” spaces that connect the pantry areas and copy areas to support work and increase social interaction and personal connections
- Improved and enhanced collaboration tools throughout the workplace (i.e. whiteboards & technology)
Planning Guidelines: Conceptual Layout

Consider the following principles when designing or planning new work environments in the future.

- Divide the floor into areas or neighborhoods with about 30 to 50 seats per area. Each one should contain collaborative workspaces, open/informal meeting spaces, enclosed offices, enclosed focus rooms, phone booths, shared storage etc.

- Locate enclosed elements away from perimeter whenever possible to provide overall access to natural light. Locate all open work areas on the perimeter for a sense of openness and transparency.

- Locate common shared meeting spaces close to the core areas with easy access from elevators or main entrances.

- Provide a social hub where users can interact. It can serve as an entry to the floor, separating the public and private areas to reduce distractions.
Test of Recommendations

Recommendations in Practice

JLL used the information collected from the site observations, guiding principles, and industry best practices to make the recommendations around the guiding principles.

In order to test the impact and benefits of these recommendations, JLL compared to the recommended usable square feet per person metric of 155-170 USF to the 9 original buildings analyzed + the Transportation building, a recent State acquisition.

Results, shown on the next slide, indicate positive impacts on 6 of 9 building when at 170 USF/seat, and positively impacts all building when at 155 USF/seat. JLL tested what impacts might be by creating a hypothetical example of test fits for two buildings to include adding a range of collaboration spaces (formal and informal, flexible work space and the separation between quiet and collaborative areas), while increasing individual workspaces and maintaining adequate support and circulation space. The test fit shows PSB building could increase by about 145 seats, quadruple the number of collaboration seats, and organize the floor in a way that is inviting and attractive.

We repeated this test with AGR where we made a hypothetical assumption of reducing the shipping and receiving space. This layout provided an additional 40 seats, tripled collaboration seats, all while providing an open work environment with natural light.

Overall we believe the recommendations are viable and will bring benefits to all State buildings, including those which currently meet the USF/seat metric. The next pages show the analytical chart and the test fit comparisons.
Test of Recommendations

For these 10 building current seat capacity is 7,104.

@170 = additional 315 seats
@155 = additional 1,033 seats

**In some cases, the number of potential seats decreases from the current, indicating a particular building is already highly efficient. However, it is recommended to analyze the mix of spaces to ensure FTEs have access to the appropriate collaboration and support spaces.**
**Recommendation Sample: PSB 4th Floor**

Test fit shows a significant increase in seat capacity. It also shows a significant increase in collaborative spaces, which measured by seat capacity it more than quadruples the amount of space provided. Lastly the layout shows the ideal layout to maximize exterior natural light and provides all collaboration space in a central area to maximize use from all sectors on the floor.

**Existing – 199 USF/Seat**

**Scenario @ 170 USF/seat**

<table>
<thead>
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<th>Current Seat Count:</th>
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<tbody>
<tr>
<td>Current Conference Seats:</td>
<td>31</td>
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<tr>
<td>4 % Hub/Support</td>
<td></td>
</tr>
<tr>
<td>4 % Shared Meeting</td>
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</tr>
<tr>
<td>92 % Private Workspace</td>
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</tr>
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</table>

<table>
<thead>
<tr>
<th>Proposed Seat Count:</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Proposed Conference Seats:</td>
<td>126</td>
</tr>
<tr>
<td>15 % Hub/Support</td>
<td></td>
</tr>
<tr>
<td>25 % Shared Meeting</td>
<td></td>
</tr>
<tr>
<td>60 % Private Workspace</td>
<td></td>
</tr>
</tbody>
</table>

Circulation = ~30% in both plans.

“Other Space” not included = Meteorology lab, Mail room, and common area between buildings.
Recommendation Sample: *Agriculture 1st Floor*

Test fit shows a hypothetical reduction in the loading dock area. The layout increases seat capacity and also shows a significant increase in collaborative spaces. It centralizes collaboration seats to facilitate access from any area on the floor while keeping it away from the individual workstations. Also maximizing access to natural light.

**Existing – 250 USF/seat**

Current Seat Count: 66  
Current Conference Seats: 38  
7 % Hub/Support  
10 % Shared Meeting  
73 % Private Workspace

**Scenario @ 164 USF/seat**

Proposed Seat Count: 101  
Proposed Conference Seats: 107  
12 % Hub/Support  
25 % Shared Meeting  
63 % Private Workspace

Circulation = ~30% in both plans.  
“Other Space” not included = Meteorology lab, Mail room, and common area between buildings.
Recommendations from this study

Based on the results of the actions taken associated with the project’s major objectives, JLL recommends the state consider the following for improving the efficiency and effectiveness of the State’s real estate portfolio.

**Implement new Guiding Principles**

- Make the adoption of utilization targets “mandatory”
- Provide a menu of office settings that support different modes of work using a common “kit of parts”.
- Use planning tool to ensure the range of spaces are adequate and make modifications to accommodate special agency requirements

**Policy Recommendations**

- Require all Agencies to plan new spaces between a range of 155-170 SF USF
- For all space actions, whether new or renovation, evaluate financial benefits of adopting new utilization
- Adopt new workplace standards and leverage purchasing power of State to buy common FFE for all state agencies
- Prior to every leased space action, evaluate whether there is state-owned space that can accommodate the user
- For leases over 20,000 SF. with a single user that is likely to remain stable over time: evaluate the cost/benefits of developing or purchasing a building compared to leasing

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Key benefits of implementing these recommendations:

- Ensure there is parity between the different buildings.
- Ensure there is flexibility to move, reorganize or relocate any agency with minimal modifications
- Ensure the state supports different generations and ways of working by providing a variety of spaces, therefore attracting more talent.

Key risks of not implementing the recommendations:

- Disparity in space provision can create planning and operational challenges
- Inability to compare two buildings equally in order to make strategic decision
- Lack of adequate space can reflect loss of productivity and engagement.
Implementation & Operations Considerations

Throughout the research done for this study, JLL encountered implementation and operational best practices determined appropriate and relevant for the State to consider. It is recommended the State consider these items, however this was not the focus of the study and therefore this is not a guideline or comprehensive list, but merely a sample list of tips and recommendations.

Tips and Tricks

**During a planning stage:**
- Obtain buy-in from Senior Leadership
- Follow overall USF Utilization requirements
- Conduct pilot projects using the new standards and utilization thresholds to evaluate performance and provide an applied learning opportunity for all agencies
- Provide training on planning for the modern office to DAS and facilities staff for each state agency
  - Planning Principles
  - Developing Requirements
  - Using the space analysis tool

**Daily Operations:**
- Invest in creating a payback model to hold agencies accountable for the space provided
- Acquire IT systems to track headcount allocation and utilization, this is the largest barrier to efficiently managing the state’s portfolio.

**Implementation Support for Planners**
- Engage users in the process through a change management program to facilitate adoption
Glossary: Building Area Terminology

Definitions of SF Space Calculations

**NET AREA (NET SQUARE FEET - NSF)**

The area of each identified program space. For example, the Net Area of an 8' x 8' workstation is 64 NSF. It includes individual workspaces, dedicated and shared support spaces, and special mission-critical spaces.

**CIRCULATION AREA (PRIMARY & SECONDARY)**

Primary circulation is the main circulation route connecting to the building core and common spaces such as elevators and exit stairs. Secondary circulation includes the aisles between individual spaces, such as offices and cubicles, and support spaces.

**USABLE AREA (USABLE SQUARE FEET - USF)**

Area of a floor occupiable by a tenant where personnel or furniture are normally housed.

**RENTABLE AREA (RENTABLE SQUARE FEET - RSF)**

Total Usable Area plus a prorated allocation of the floor and building common areas within a building.

**GROSS AREA (GROSS SQUARE FEET - GSF)**

Total area of a building enclosed by the exterior face of the perimeter walls, calculated on a floor-by-floor basis.

Objectives

- To change the mindset associated with the standard workplace environment by introducing practices that encourage federal agencies to adopt and adapt to new ways of working, including moving away from outdated, rank based standards deployment, with the overall goal of reducing space utilization.
- To modernize the workplace through implementation of telework programs that help reduce the size and improve the general nature of GSA’s office space.

Approach – Top Down Executive Orders

- “Freeze the Footprint” (2012 Mandate) – On an annual basis, an agency shall not increase the size of its domestic real estate inventory, measured in square footage, for space predominately used for offices and warehouses.
- “Shrink the Footprint” (2015 Mandate) – All Chief Financial Officers (CFOs) Act Executive Branch departments and agencies shall move aggressively to dispose of surplus properties held by the Federal Government, make more efficient use of the Government’s current real property assets, and reduce the total square footage of their domestic office and warehouse inventory relative to an established baseline.
- Directive mandating a 170 USF/FTE utilization target for all projects in excess of $2.5M in annual expenditures.
- Implementation of pilot projects across all 11 Regions and development of workplace diagnostic and planning tools to support workplace transformation.

Practices and Services

- FIT Program – For agencies that are at or below the utilization target of 170 USF/FTE or less, the GSA will subsidize the cost of buying new furniture up front, a cost which is then amortized into the Agency’s lease rate.
- Workplace Engagement Services – GSA provides Agencies with architectural planning and other workplace services at no charge – contingent upon their space utilization remains at or below 170 USF/FTE.
- Client Planning Managers (Region 10 only) – A centralized planning group designated to help agencies identify opportunities to consolidate from leased space into owned facilities, combining multiple leases into fewer consolidated leases, and identify other real estate opportunities resulting in space reduction or improved efficiencies and utilization.

Results

- After extensive remodeling and implementation of mobility programs, Region 10’s Auburn office was able to decrease its overall utilization from 260 USF/FTE down to 140 USF/FTE, a 47% reduction.
# State of Oregon Space Utilization Matrix

<table>
<thead>
<tr>
<th>Density (RSF/Seat)</th>
<th>1 - AGR</th>
<th>2 - HSB</th>
<th>3 - EMP</th>
<th>4 - EXEC</th>
<th>5 - GSB</th>
<th>6 - L&amp;I</th>
<th>7 - POB</th>
<th>8 - PSB</th>
<th>9 - REV</th>
<th>State of Oregon Standards</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>290</td>
<td>231</td>
<td>218</td>
<td>214</td>
<td>298</td>
<td>238</td>
<td>227</td>
<td>220</td>
<td>210</td>
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<tr>
<td>Density (USF/Seat)</td>
<td>246</td>
<td>204</td>
<td>186</td>
<td>181</td>
<td>231</td>
<td>193</td>
<td>183</td>
<td>179</td>
<td>163</td>
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<tr>
<td>Private Office Size (SF)</td>
<td>150-370</td>
<td>200-285</td>
<td>115-380</td>
<td>150-300</td>
<td>105-300</td>
<td>105-300</td>
<td>75-375</td>
<td>110-270</td>
<td>130-305</td>
<td>96-160 (modular furnishings)</td>
</tr>
<tr>
<td>Private Office Types (#)</td>
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<td>2</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>8</td>
<td>3</td>
<td>4</td>
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<tr>
<td>Workstation Size (SF)</td>
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<td>36-120</td>
<td>55-140</td>
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<td>Workstation Types (#)</td>
<td>2</td>
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<td>5</td>
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<td>3</td>
<td>8</td>
<td>3</td>
<td>4</td>
<td>4</td>
</tr>
</tbody>
</table>

= not a best practice  ○ = does not follow current State of Oregon standards

* All buildings include specialty spaces
## Building Summary – State of Oregon

<table>
<thead>
<tr>
<th>Building</th>
<th>Floor</th>
<th>USF</th>
<th>RSF</th>
<th>Seats</th>
<th>USF/Seat</th>
<th>RSF/Seat</th>
<th>Heads</th>
<th>USF/Head</th>
<th>RSF/Head</th>
<th>Occupancy Rate</th>
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</thead>
<tbody>
<tr>
<td>Agriculture</td>
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<td>2,290</td>
<td>2,702</td>
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<td>21,454</td>
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<td>266</td>
<td>246</td>
<td>290</td>
<td>173</td>
<td>379</td>
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<td>Employment Building</td>
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<td>173</td>
<td>194</td>
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<td></td>
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<td>519</td>
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<td>218</td>
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<td>654</td>
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<td>Executive Building</td>
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<td></td>
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<td>160</td>
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### Building Summary – State of Oregon

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<th>USF/Head</th>
<th>RSF/Head</th>
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## Building Summary – State of Oregon

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<th>RSF/Seat</th>
<th>Heads</th>
<th>USF/Head</th>
<th>RSF/Head</th>
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Executive Summary for Peer States

Colorado

The State of Colorado uses the Dept. of Personnel and Administration to manage the Capitol Complex of buildings in key state occupied cities, Denver, Grand Junction and Pueblo, for state-owned general office space. All other owned buildings are managed by individual agencies. Additionally, individual agencies are responsible for managing their leased space. While CO does not have space standards for owned space, they do have guidelines for RSF for measurements when leasing space. Individual agencies are given space planning assistance by 3rd parties. They have no policies surrounding teleworking or desk sharing.

California

The State of California, Department of General Services, Real Estate Services Division is the primary provider of real estate services for the State of California. RESD's highest priority is to fulfill state agencies' facility and real property needs. RESD consists of professional staff with expertise in asset, property, real estate, leasing, architecture, engineering, project management and construction. Although a minority of agencies have authority to construct or lease facilities, RESD is responsible for constructing, managing, and maintaining California’s state owned office portfolio as well as negotiating and managing the majority of the leased office space. CA uses a 1998 manual to guide its space standards. They do not have an uniform metric that they measure space; USF, GSF, or RSF being used at any one time. Depending on the size of the project, CA may contract to private sector design firms for architectural programming, space planning and/or design services for new facilities. Due to the complexities of reporting and labor relations requirements teleworking options for CA's 250,000 staff has had limited implementation. Finally, CA charge back space to individual agencies and use sophisticated financial methods including lease-revenue bonds (based partially on revenue/rent received from the chargebacks) to pay for new construction.
All state-owned and leased general office space is managed by the State of TN Real Estate & Asset Mgmt (STREAM) division who sits within the Dept. of General Services. There are established space standards for the 9 million SF that STREAM manages. These standards were established 3 years ago but not all space has been reconfigured/renovated to these standards yet. They measure their space in USF and exclude special use spaces in calculations of standards. STREAM provides individual agencies assistance in implementing standards. Lastly, STREAM reviews all drawings and designs and procures all systems furniture to ensure that they meet standards. All in all, the State of TN has a robust, comprehensive grasp on managing it’s real estate portfolio and maintains it’s aggressive standards through **extensive management**.

The WA Dept. of Enterprise Services (DES) manages both the design and construction as well as the day-to-day facilities management for the majority of the state’s owned general office space (a small portion of agencies have internally managed FM at their site). The State of WA has enacted a law that requires DES to publish and enforce space standards, but in recent years this has been enforced sparingly (DES and OFM (Office of Financial Mgmt) are currently updating policies/standards to support an effort for innovation in the workplace). They use RSF to measure space and employ a uniform standard for all office space. DES does provide space planning assistance, especially for leased spaces, and enlists 3rd party architects for owned facilities. In regards to teleworking space, the Governor has issued an Executive Order to update telework policies and there are initiatives in place to update other alternative workplace strategies.
The Division of Facilities Construction and Management (DFCM) manages all large scale design and construction and provide services (for a fee) for maintenance and facility management for most agencies, but agencies can request and prove that they are able to maintain their own facilities. DFCM has space standards based on job title and "group". These were established in 1994, and aren't followed or enforced on a regular basis except when moving into new spaces. In these instances, DCFM engages the space planner and enforces that the standards are upheld. There is no high level programming target GSF/RSF/USF per seat metric that is used and the DFCM finds spaces based on necessity and standard requirements. However, the state is currently revamping standards and should have these finalized by late-May 2015. The state has an “owned first” mentality when it comes to fulfilling space needs. Recently, the state has engaged with 3rd party brokers who gave viable solutions to negotiate very high leases so that some leases sit below market prices. They do not have policies surrounding teleworking, desk sharing, etc. They currently use AiM by Assetworks for Facilities Managements but do not track density or seats per floor and have admitted that they could benefit from fully tracking space utilization.

While a detailed interview is still in works, based on the case studies reviewed, 5 out of 7 featured GSA case studies shows a range of 192-227 RSF/seat. GSA has also built-out a “proto-type” space that is highly collaborative. This proto-type space achieves an incredible 105 USF per person. GSA has developed very detailed standards on not only workstation/office size, but also on the look and feel of the space. They have adapted the “Activity-based workplace" style, recognizing that there are differing functional needs. They have also incorporated different forms of collaborative spaces into their work plans.