EMAIL & CALENDARING

Context

- Consolidation of email systems can lead to economies of scale.

- Incompatible calendaring systems create significant administrative burden.

- The current distribution of server management across campus may have operational and financial implications.

Analysis

- Worked with DoIT and interviewed divisional IT leads to identify the different email and calendaring systems across campus

- Reviewed data from peer institutions and vendors regarding different configurations and their costs

- Analyzed data and findings published by the working group on email and calendaring and internal cost data

Findings

- UW currently operates 72+ email systems across campus.

- Significant effort is required to organize large-size meetings, often requiring surveys and checking multiple calendars.

- Many peer institutions have implemented Gmail for student email; the Alumni Association provides Gmail accounts for alumni.

- Some peers are considering moving all administrative email to third party providers (e.g., Microsoft 365 and Gmail), though accessibility and security considerations exist.

Opportunities

- UW can significantly reduce time and effort in communication and collaboration by creating a common standard for email and calendaring.

- Potential savings of $250K-$1M annually by migrating to a single platform.

COMPUTER BUNDLES

Context

- Manufacturers provide deep discounts on orders of pre-determined computer configurations because it helps them plan production.
- UW does not have campus-wide standards and guidelines for computer purchases.
- IT planning and purchasing is usually decided at the divisional level, which leads to a wide variety of different models/configurations being purchased.

Analysis

- Reviewed the different models and configurations UW currently purchases through the DoIT Tech Store, MDS, and other channels
- Considered the range of prices UW paid for various models and configurations
- Compared UW's average prices and discounts from list price vs. peer institutions' average discounts

Findings

- UW purchases a broad range of computer configurations.
- E.g., there are 20+ standard Dell computer hardware bundles purchased by campus units.
- Peer institutions have an average of 4 standard bundles, and modifications to those bundles require an articulated business need.
- UW purchases computers through a variety of suppliers and different channels.

Opportunities

- Potential savings of $300-500K annually if 70% of computer purchases were standard bundles procured through the same vendor/channel.
- Not all computer purchases can be standardized due to particular technical or business needs.
- Standard computer bundles need to be developed with the input of campus subject matter experts and user groups.

UW Discounts Received on Top Dell Desktop Models Consistently Less Than Peers
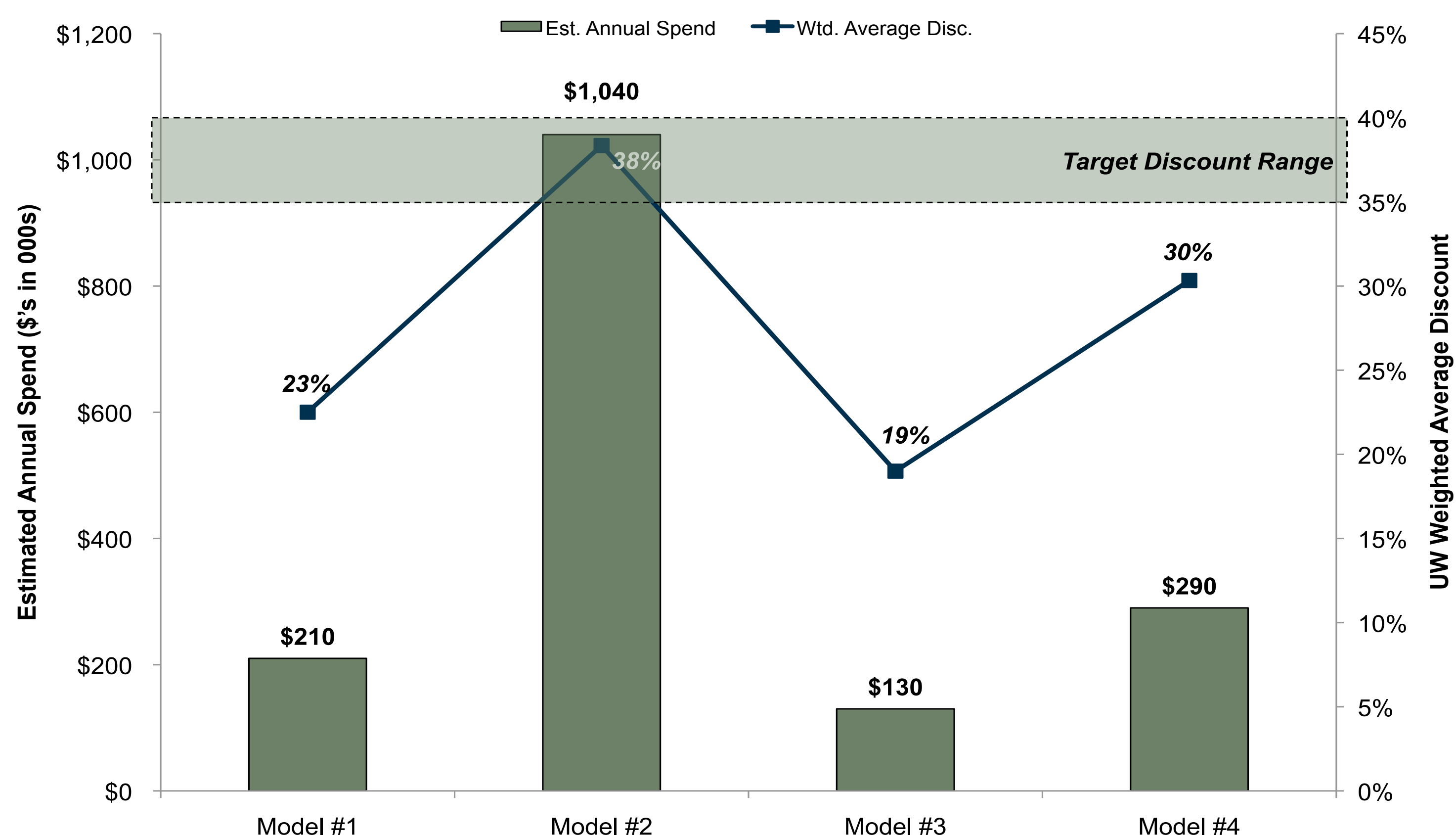
Note: (1) Models above include: OptiPlex 360, OptiPlex 780 MT, OptiPlex 780 USFF, and OptiPlex 980MT.
(2) Benchmark discount range is based on average of peer institutions.

DATA CENTER AGGREGATION

Context

- Users rely on different types of technology to support their work, which requires significant infrastructure to host (web servers, storage servers, etc.).
- The industry trend is to consolidate servers and data centers to:
  - Realize significant management and energy savings
  - Reduce security risks
  - Enhance services by creating "on demand" services.

Analysis

- Interviewed divisional IT leads and surveyed several colleges and administrative units to understand the distribution of servers
- Built a cost model to explore efficiency opportunities and estimate costs that might be relevant to the whole campus
- Reviewed centrally provided services, service levels, pricing, and utilization, and compared those to peer institutions
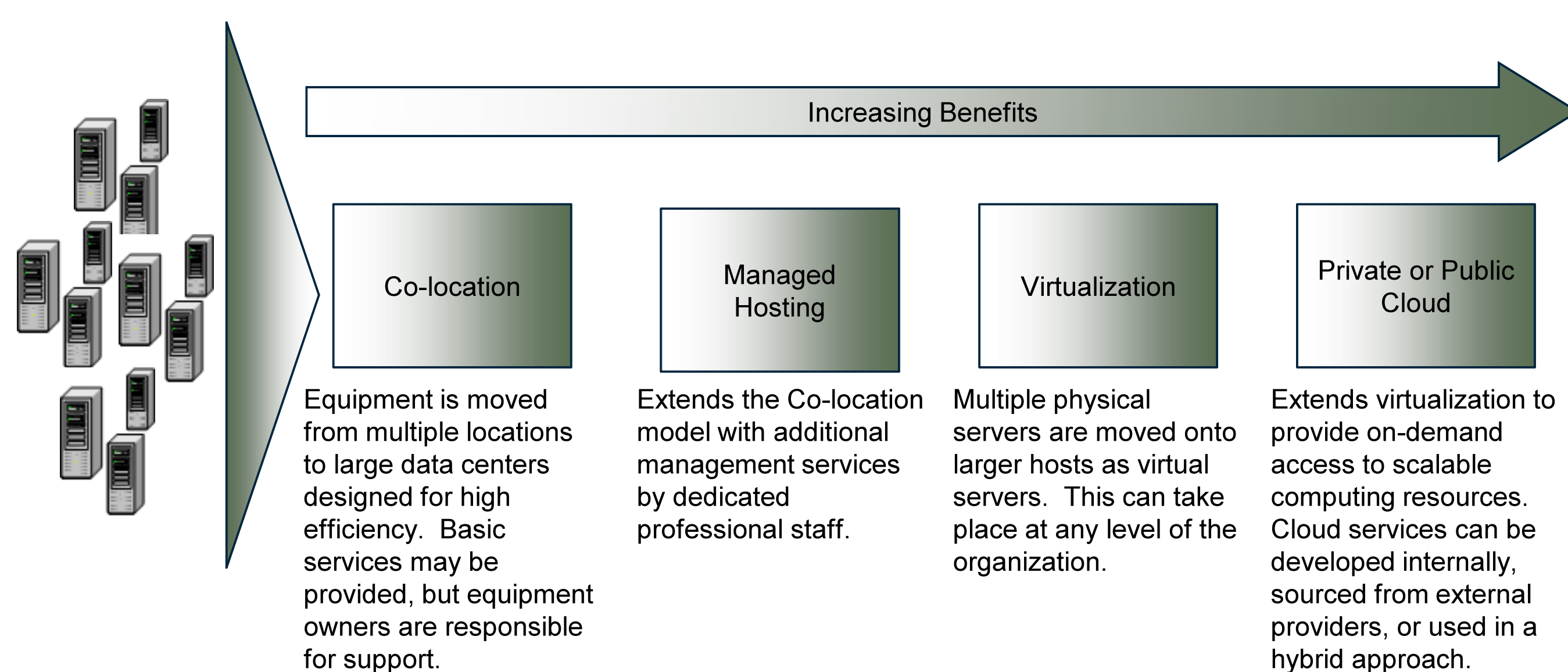
Findings

- UW has at least 4 major data centers, several dozen dedicated server rooms, and hundreds of single servers spread throughout campus.
- Centrally-offered services are expensive relative to the costs of building local capacity, which appears to have encouraged divisions to build their own capacity.
- Several peers operate with servers and data centers provided centrally or funded on a marginal cost basis.
- Virtualization software used across the University appears to be the same, reducing implementation challenges.

Opportunities

- There are potential savings of upwards of $5M annually, based on industry benchmarks.
- Data center aggregation can take several forms including co-location, managed hosting, "virtualized," (shared by different user groups), or even outsourced.
- Additional analysis is required to get a more accurate understanding of server distribution across campus and its related costs.

Benefits of Aggregating Data Centers

Increasing Benefits

Co-location	Managed Hosting	Virtualization	Private or Public Cloud
Equipment is moved from multiple locations to large data centers designed for high efficiency. Basic services may be provided, but equipment owners are responsible for support.	Extends the Co-location model with additional management services by dedicated professional staff.	Multiple physical servers are moved onto larger hosts as virtual servers. This can take place at any level of the organization.	Extends virtualization to provide on-demand access to scalable computing resources. Cloud services can be developed internally, sourced from external providers, or used in a hybrid approach.

This diagram shows a progression of benefits as an organization moves towards increasing aggregation. It is not intended to represent a linear implementation path.

SPACE UTILIZATION

Context

- Divisions and departments control their own space.

- Aside from generally-assigned classrooms, information on space availability and utilization is not centralized.

- Systems that could help analyze the productivity of space, such as HRS and SFS, do not tie with a consolidated database of space information.

- There are very few, if any, mechanisms to control the use of non-classroom space.
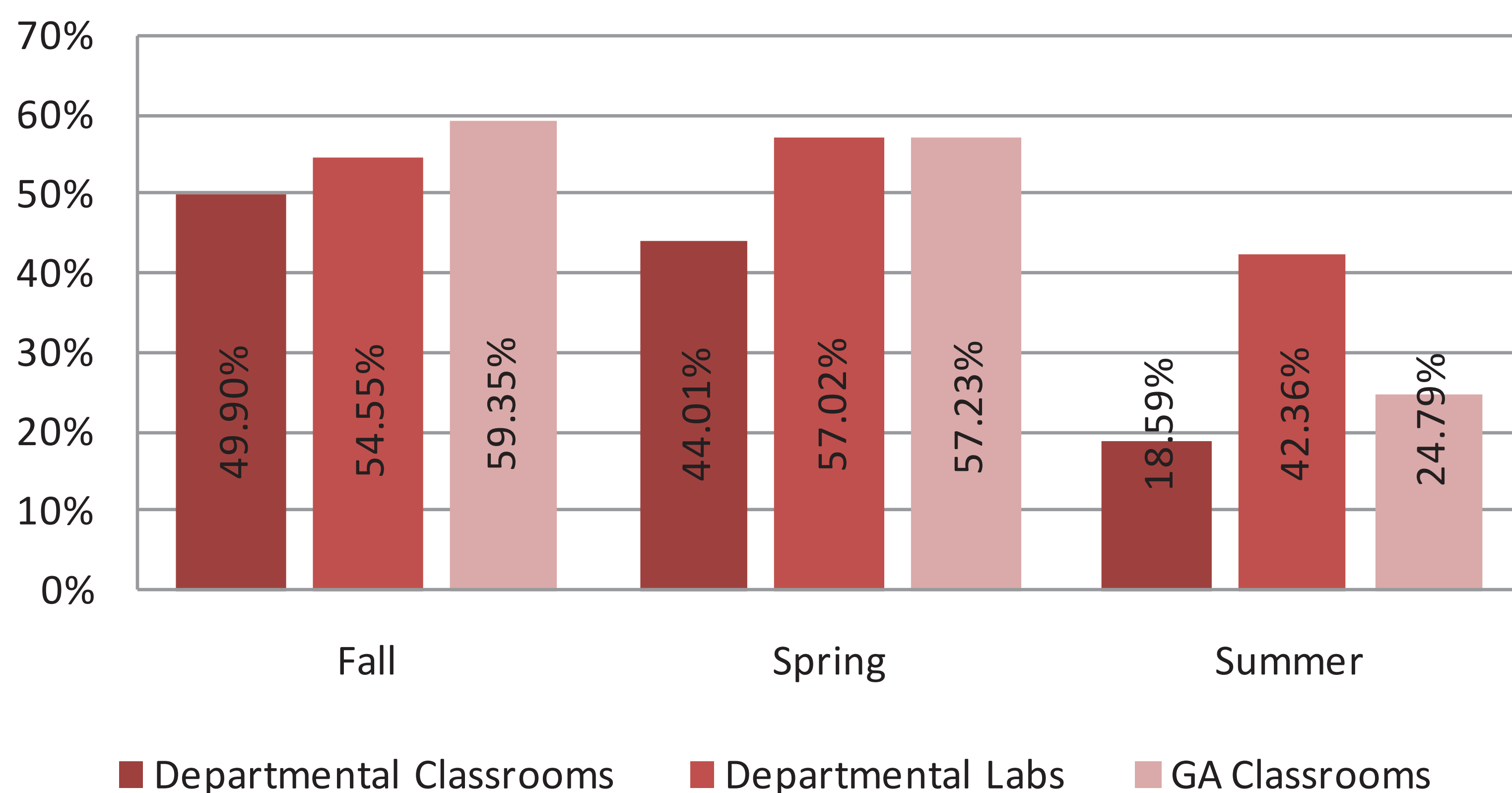
Analysis

- Analyzed the occupancy of available classroom space (time that space is occupied / time that it is available) and the utilized capacity of occupied classroom space (number of seats used / number of seats available)

- Reviewed the systems that are used to manage space across campus and the current level of integration between these systems

Findings

- During prime instructional hours (9 a.m. to 5 p.m.), classroom utilization is approximately 43% (including generally-assigned and departmental instruction space) during the fall and spring semesters.

- Of those classrooms being used, only 45% of available seats are filled on average.

- Existing space databases have limited information, with little to no integration between those databases and other systems such as HRS and SFS.

- UW spends approximately $9 million annually on leased property: office, multi-purpose, and laboratory space.

Opportunities

- If space utilization rates were higher, there would be less need for leased space and new construction. There is also the potential to increase UW's F&A rate.

- However, space data must be collected in a consistent and comprehensive manner, which can be accomplished in concert with current initiatives underway in Space Management.

- Additionally, UW needs to explore where systems integration is required to make sure that space is used as effectively as possible.

Chart: Space utilization by season and space type

	Fall	Spring	Summer
Departmental Classrooms	49.90%	44.01%	18.59%
Departmental Labs	54.55%	57.02%	42.36%
GA Classrooms	59.35%	57.23%	24.79%

Administrative Excellence
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STRATEGIC PURCHASING
(A.K.A. DEMAND MANAGEMENT)

Context

- The use of state purchasing contracts is mandated for many commodity areas, limiting procurement flexibilities and suggesting possible savings beyond price.
- The lack of consistent, campus-wide purchasing guidelines/standards, and limited monitoring of campus purchases contribute to units making purchasing decisions based purely on local need.
- Product proliferation and purchasing across multiple vendors for each commodity is common.

Analysis

- Analyzed campus spending and current contracts to understand the variety of products being purchased, current purchase methods, and preferred vendors
- Reviewed campus spending on high volume, frequently purchased products to understand opportunities for product standardization and simplification
- Compared purchasing guidelines and habits with those of peer institutions and industry practices to identify opportunities, such as, increased use of remanufactured toner, or reduced proliferation of maintenance, repair, and operations (MRO) products

Findings

- UW effectively encourages and utilizes the E-Commerce site to direct user spending to primary vendors, but coordinated demand management efforts can yield additional savings by:
  - **Consolidation:** reducing the proliferation of products purchased for the same need (e.g., the purchase of more than 250 types of black pens)
  - **Substitution:** transferring purchases from a more expensive option to a less expensive option that doesn't sacrifice quality (e.g., shifting toner purchases to remanufactured toner, which is of equal quality and promotes sustainability)

Opportunities

- Potential savings of between $1M and $2M annually could be realized, just across office supply, MRO product, and scientific supply purchases.
- Significant additional savings can be achieved by applying the same strategies across other commodity areas that were not reviewed.

Remanufactured Toner: Both a Sustainable and Cost-Saving Choice

HP Product #	Total Qty.	Estimated Annual Spend	Average Staples Unit Price	Cartridge Savers Price	Demand Management Savings %	Demand Management Savings $
CE505A	610	$43,640	$71.67	$48.15	33%	$14,320
Q6470A	379	42,930	113.27	74.90	34%	14,540
C9720A	310	39,130	126.22	64.20	49%	19,225
C9733A	135	37,035	274.39	101.65	63%	23,315
C9730A	188	36,175	192.41	101.65	47%	17,065
C9731A	134	36,150	269.76	101.65	62%	22,525
C9732A	133	35,880	269.76	101.65	62%	22,360
Q5950A	205	31,195	152.17	85.60	44%	13,645
C9723A	178	30,350	170.51	69.55	59%	17,970
Q5942A	234	29,865	127.63	58.85	54%	16,095
CC364X	126	29,710	235.81	101.65	57%	16,905
Q5942X	159	29,120	183.14	58.85	68%	19,760
C9721A	159	27,110	170.51	69.55	59%	16,050
C9722A	157	26,770	170.51	69.55	59%	15,850
CC364A	191	25,315	132.53	80.25	39%	9,985
Other (123)	7,523	688,995			43%	327,995
Total	**10,821**	**$1,189,370**			**49%**	**$587,605**

Demand Management Savings with Remanufactured Toner Pricing Improvements

Our Experience	Potential UW Demand Mgmt. Savings
15% – 25%	$680K – $740K