

University of Tennessee Health Science Center

2019 Campus Master Plan Update

Committees

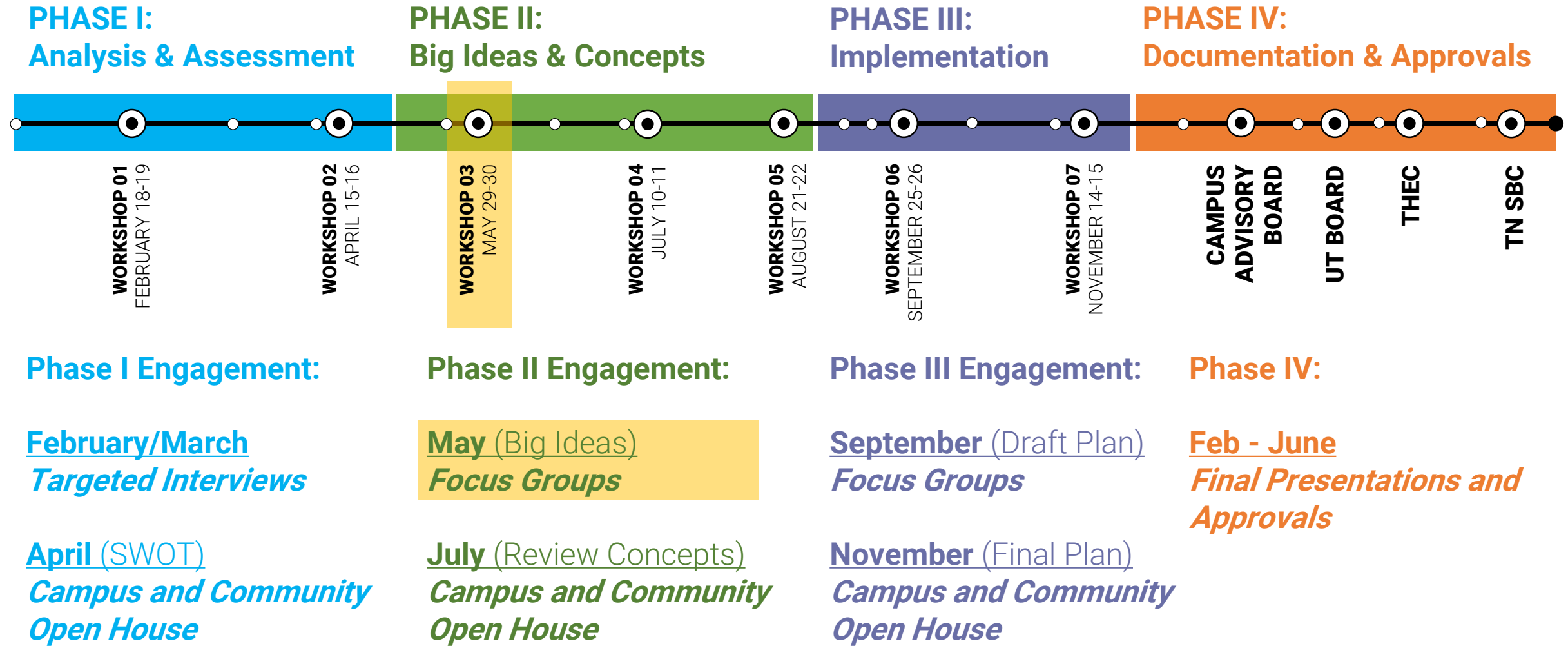
May 29-30



Today's Agenda

1. Process/Schedule
2. Space Needs Analysis
3. Goals and Principles
4. Big Ideas Review

Process and Schedule





Space Needs Analysis

THEC Master Plan Guidelines



SPACE NEEDS

Full Space Inventory & Analysis per THEC Space Guidelines to **Identify Future Needs**



ENROLLMENT

Analysis of Previous 10 years + **5-10 year projections** to inform future space needs



SITE CONSIDERATIONS

Land Use; Mobility, Circulation & Parking; Open Space; Stormwater, Precincts; Community



DESIGN GUIDELINES

Define the Major **Design Objectives** for Future Campus Development



LAND ACQUISITION

Full Inventory of Land (by Ownership) & Identify/ Prioritize **Needed Land Acquisitions or Disposal**



INFRASTRUCTURE

Catalog General Conditions & **Compare Current Demand/Capacity to Future Need**



STUDENT LIFE/SERVICES

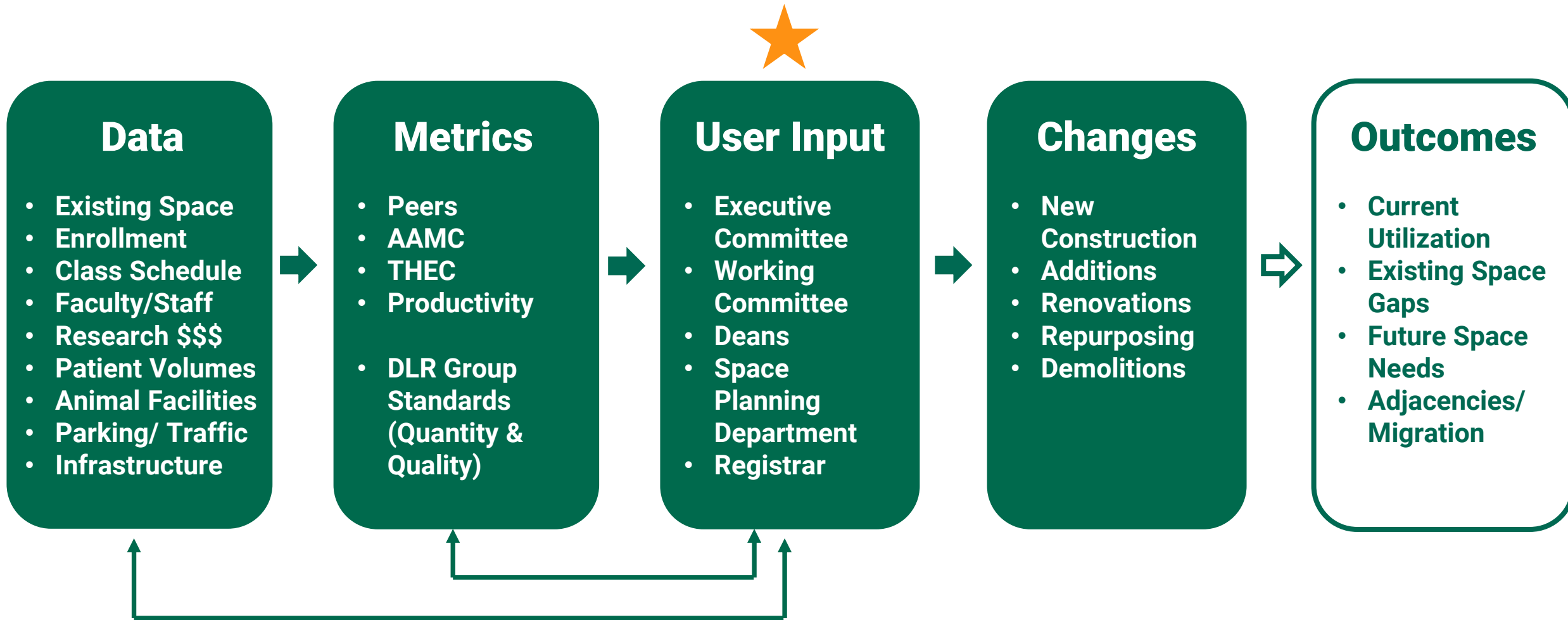
Full Inventory & Determine **Future Qualitative & Quantitative Needs**



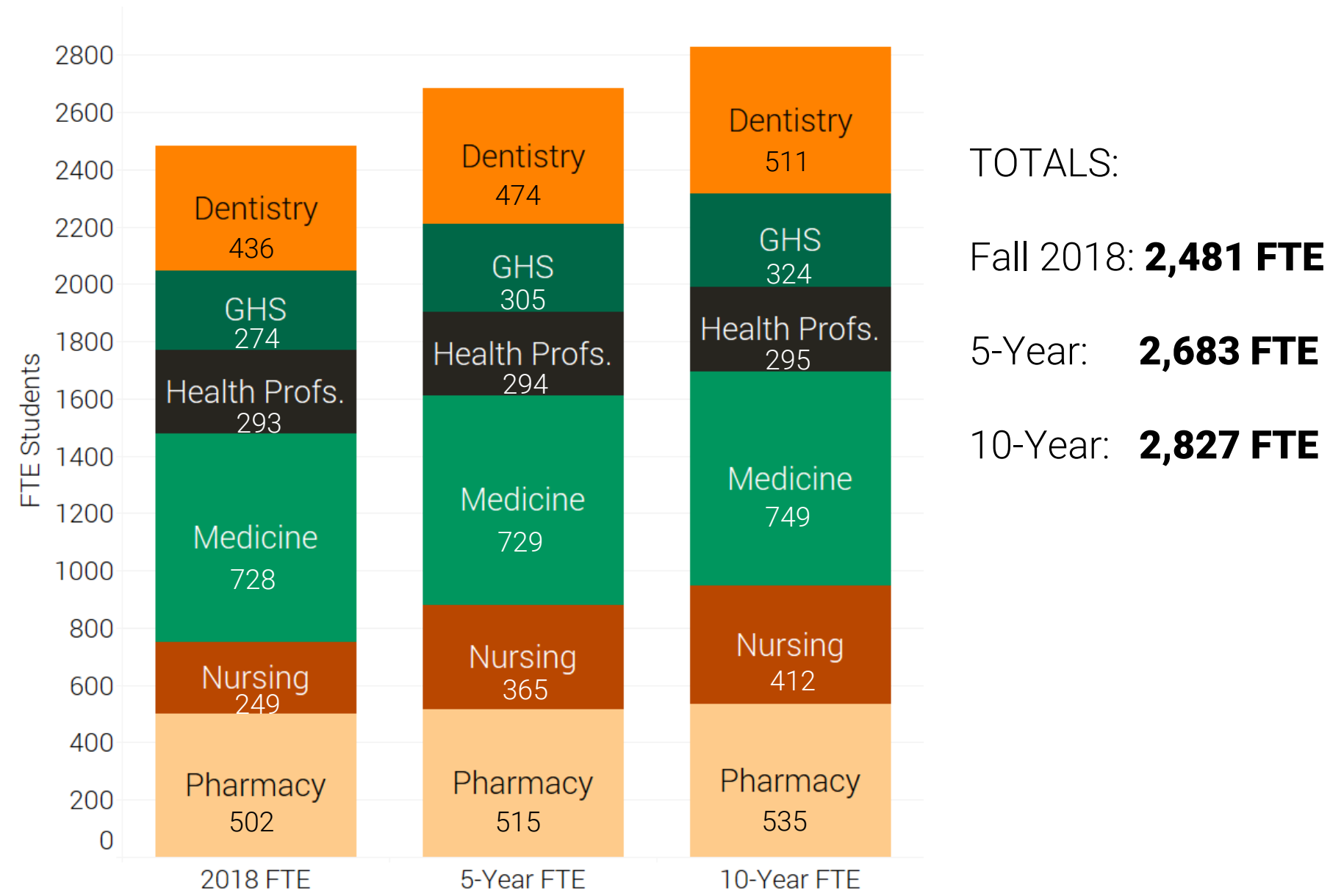
IMPLEMENTATION AND CAPITAL PLAN

Full List of Recommended **Projects, Cost, Priority & Timeline**

Space Analysis Process



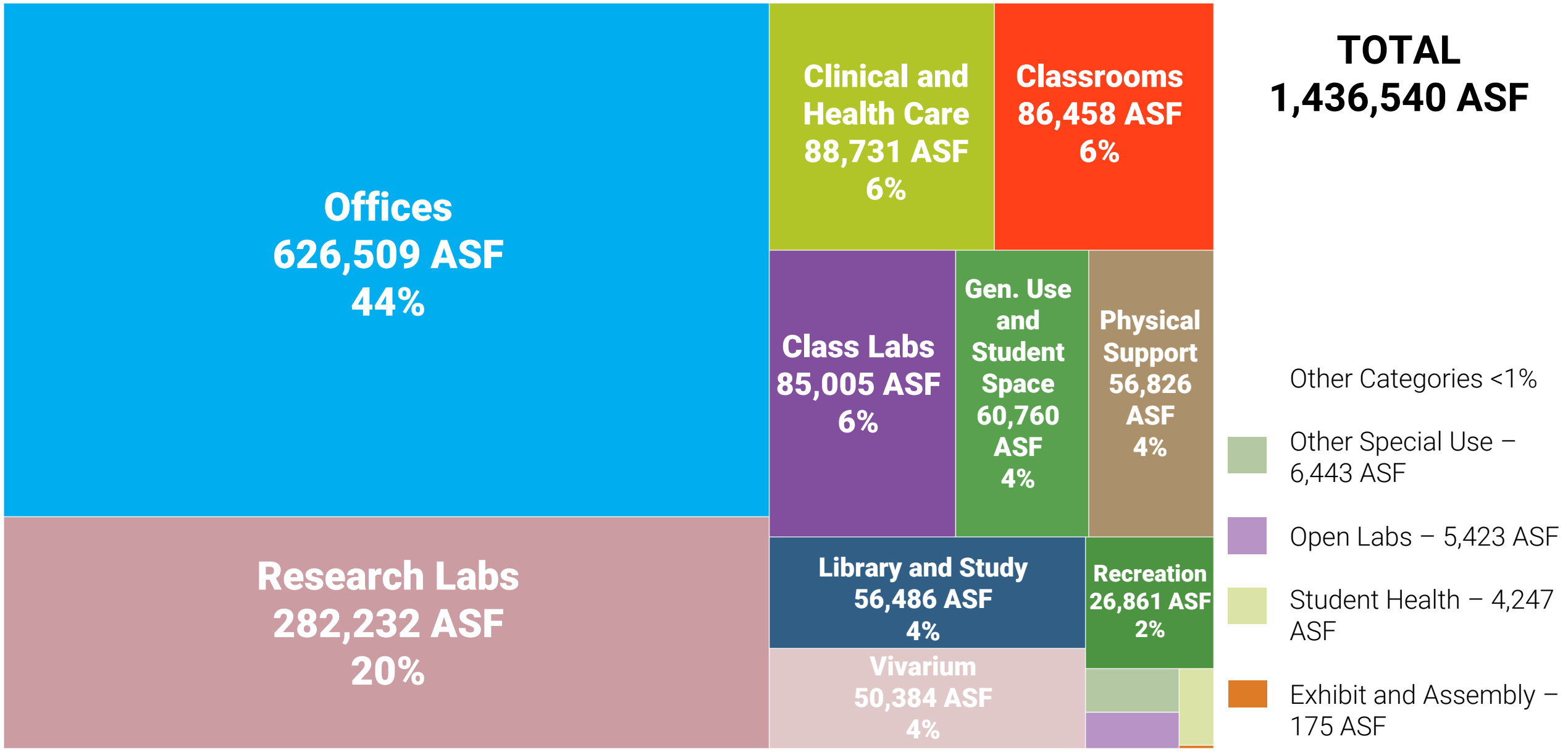
Enrollment projections



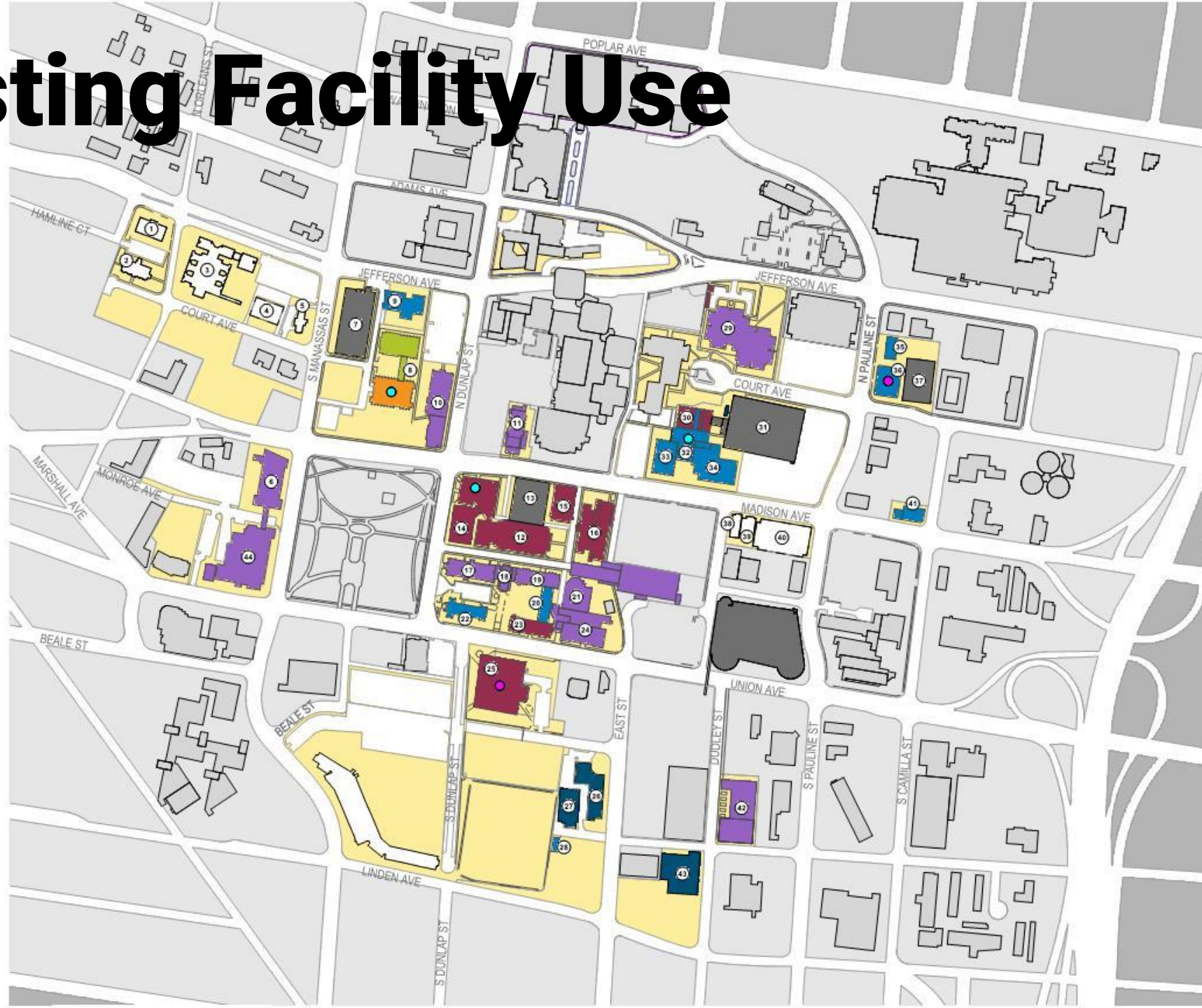
Assumptions

- **Faculty and Staff will grow at half the rate** of Enrollment growth. Each unit will be providing more exact Faculty and Staff growth projections to incorporate for future iterations.
- Principal Investigators will grow **8% per year** as defined in the Research Operational Strategic Plan.
- Clinical Space growth was determined based upon **projected increases in patient visits** as provided by the Clinical units.
- The Fall 2018 Scenario incorporates the **demolition of all facilities on the parcel** that is tabbed for new housing. The 10-Year Scenario then incorporates the demolition of 910 Madison, 920 Madison, and Memphis Bioworks II.
- **THEC Space Allocation Guidelines** are incorporated where appropriate.

Existing Space Distribution

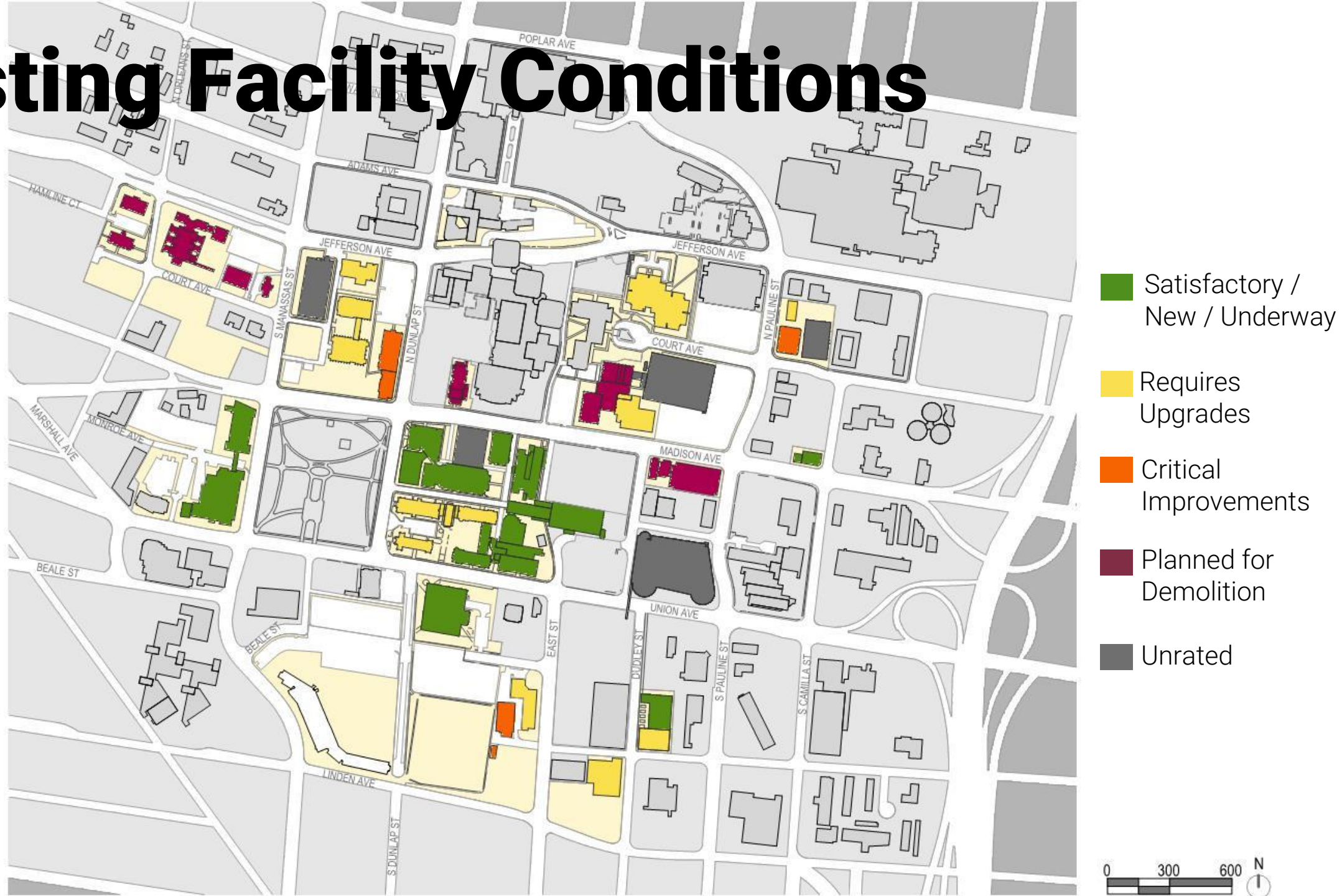


Existing Facility Use



- Academic
- Research
- Student Life
- Recreation + Fitness
- Administrative
- Facility Support
- Parking
- Dining Locations
- Clinical Locations

Existing Facility Conditions



THEC Space Allocation

Classroom Metrics

- **67% Room Utilization** or **30 scheduled hours** per week based on a 45 hour week
- **60% Seat Utilization**
- Range of 14-26 ASF per seat. DLR Group used 30 ASF per seat to account for active learning and the prevalence of team-based learning in medical education

Class Laboratory Metrics

- **33% Room Utilization** or **15 scheduled hours** per week based on a 45 hour week
- **75% Seat Utilization**
- 75 ASF per seat

Open Laboratory Metrics

- **5 ASF per FTE Student**

Office Metrics

- Office ASF assigned per FTE Employee based on job function ranging from **350 ASF** for the Chancellor to **40 ASF** for Student Assistants
- **30% additional for service and conference space.** DLR Group assigned 20 ASF for service and 25 ASF for conference per FTE Employee for consistency with other higher education institutions

THEC Space Allocation (Cont.)

Library and Study Metrics

- Study Stations to accommodate **25% of the on-campus student body**. DLR Group increased this to **35%** to account for higher demand on study spaces.
- 25 ASF per standard study station, 35 ASF for enhanced and group study stations. DLR Group used **35 ASF for all study stations** to align with national best practices.
- 0.1 ASF per physical volume for the first 150,000, then 0.09 ASF for the next 150,000. 0.03 ASF per physical volume in compact shelving.

Physical Education and Recreation Metrics

- Total of **40,800 ASF** for institutions under 4,000 FTE. This metric is focused on institutions that have Varsity Sports, which is not applicable for UTHSC.
- DLR Group instead used a NIRSA metric which provides 12 ASF per FTE student and 15% of non-student employees.

THEC Space Allocation – Research

THEC presents two methods for determining research needs. Institutions are asked to calculate their research needs using both methods, and then **use the method which generates more space.**

Research Metrics – Expenditures Method

- Research Expenditures are broken into four categories: highly space-intensive, space-intensive, moderately space-intensive, and office-based. Each of these categories is then assigned an ASF factor for every \$1 Million in Expenditures.
- Using this method, and classifying all existing UTHSC research as highly space-intensive, results in an **overall need of 170,756 ASF for Fall 2018.**

Research Metrics – Personnel Method

- Research Personnel are similarly broken down into the same four categories. Personnel are then assigned an ASF factor based on job function – e.g. Faculty in highly-space intensive research receive 600 ASF while a Post-Doc in office-based research receives 50 ASF.
- Using a modified version of this method (PI's were known but all research personnel was not), UTHSC generates an **overall need of 296,460 ASF for Fall 2018.**

Research Analysis Next Steps

Coordinated with the Office of the VC of Research:

- Facilitate a Zoom meeting with the Clinical Trials Network to discuss Memphis' Clinical Research Space Needs. Discuss PI growth, Clinical Research ASF module size, appropriate level of PI sharing within Clinical Research space.
- Request PI growth projections by type within each College. Types include:
 - Wet Lab
 - Dry Lab
 - Office-based
 - Clinical
- Upon receipt of the data outlined, rerun the Research Analysis so that it is closely aligned with UTHSC Research Growth Targets.

Clinical Space Metrics

Clinical Spaces Included:

- Ophthalmology
- Dermatology
- University Health Services
- Dental Clinic
- Boling Center (only spaces currently in use)

Space metrics range from 500 to 625 ASF per Clinical Unit – this includes space for clinical areas, limited outpatient office treatment modalities, shared office and support space for clinical activities, departmental waiting and reception, and modest dedicated teaching space.

Clinical Planning Modules at 9,000 ASF refer to 10, 30x30 structural bays, typically used in healthcare architecture.

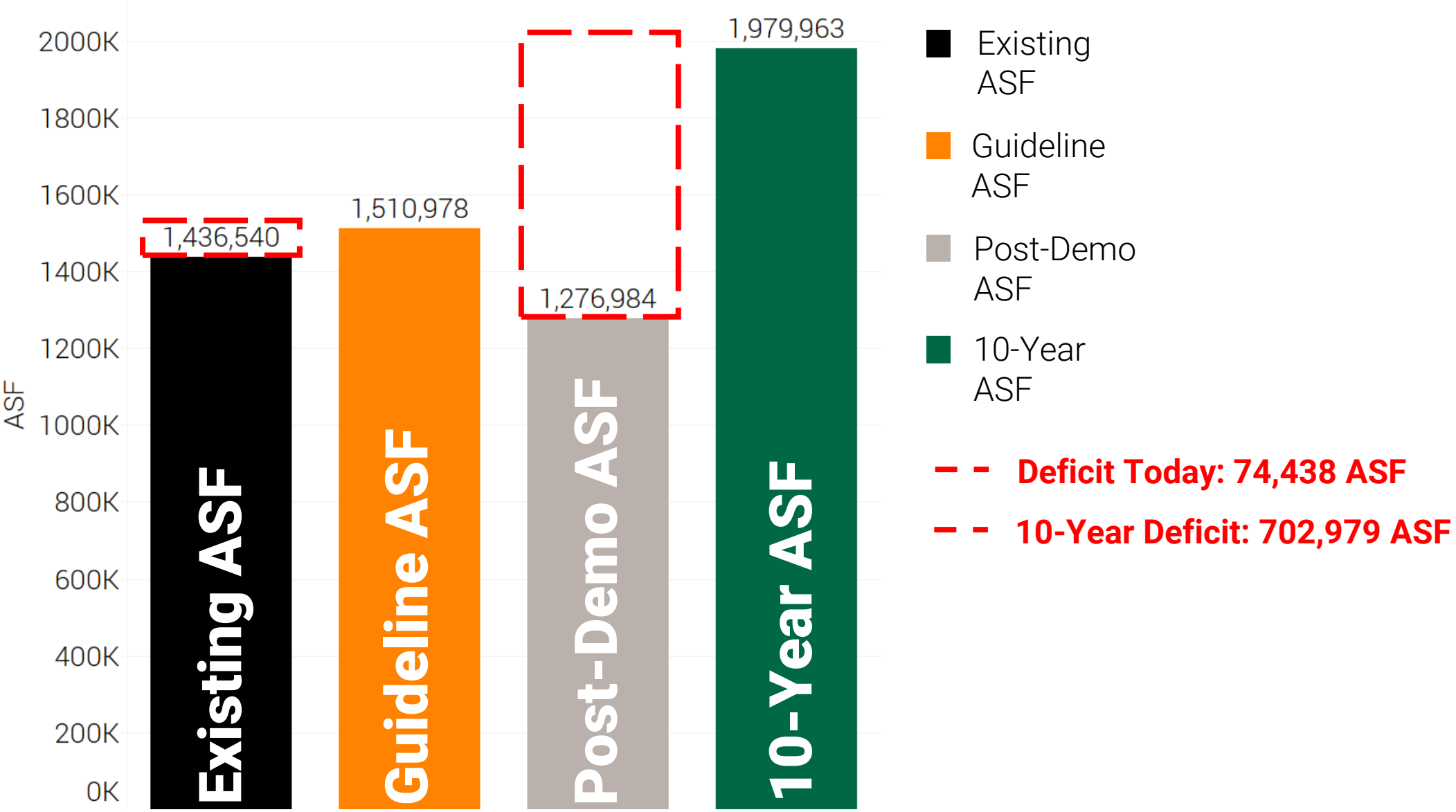
Contemporary planning easily allows 15 patient encounter spaces, with some private offices.

Current and aggressive planning allows 20+ patient encounters and light procedure spaces, with no private offices.

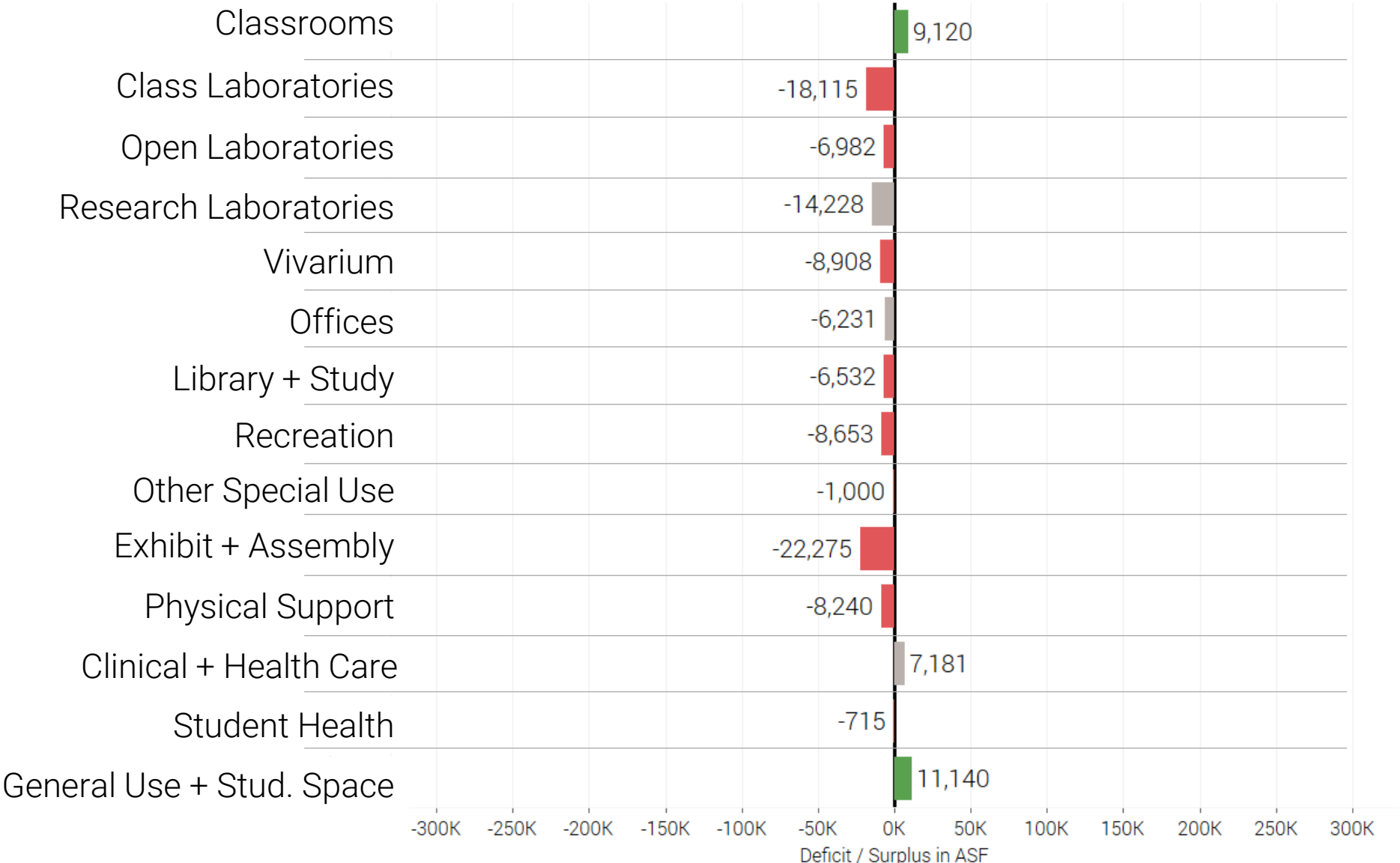
Key Terms

- **Existing ASF:** Square footage assigned to the unit today within existing buildings. This excludes buildings immediately slated for demolition on the future housing parcel.
- **Guideline ASF:** Square footage generated based on the metrics used for Fall 2018.
- **Post-Demo ASF:** Square footage assigned to the unit today within existing buildings, accounting for future demolitions of 910 Madison, 920 Madison, and Memphis Bioworks II.
- **10-Year ASF:** Square footage generated based on the metrics used for the 10-Year Vision.

Overall Space Needs



Space Gap Analysis Fall 2018



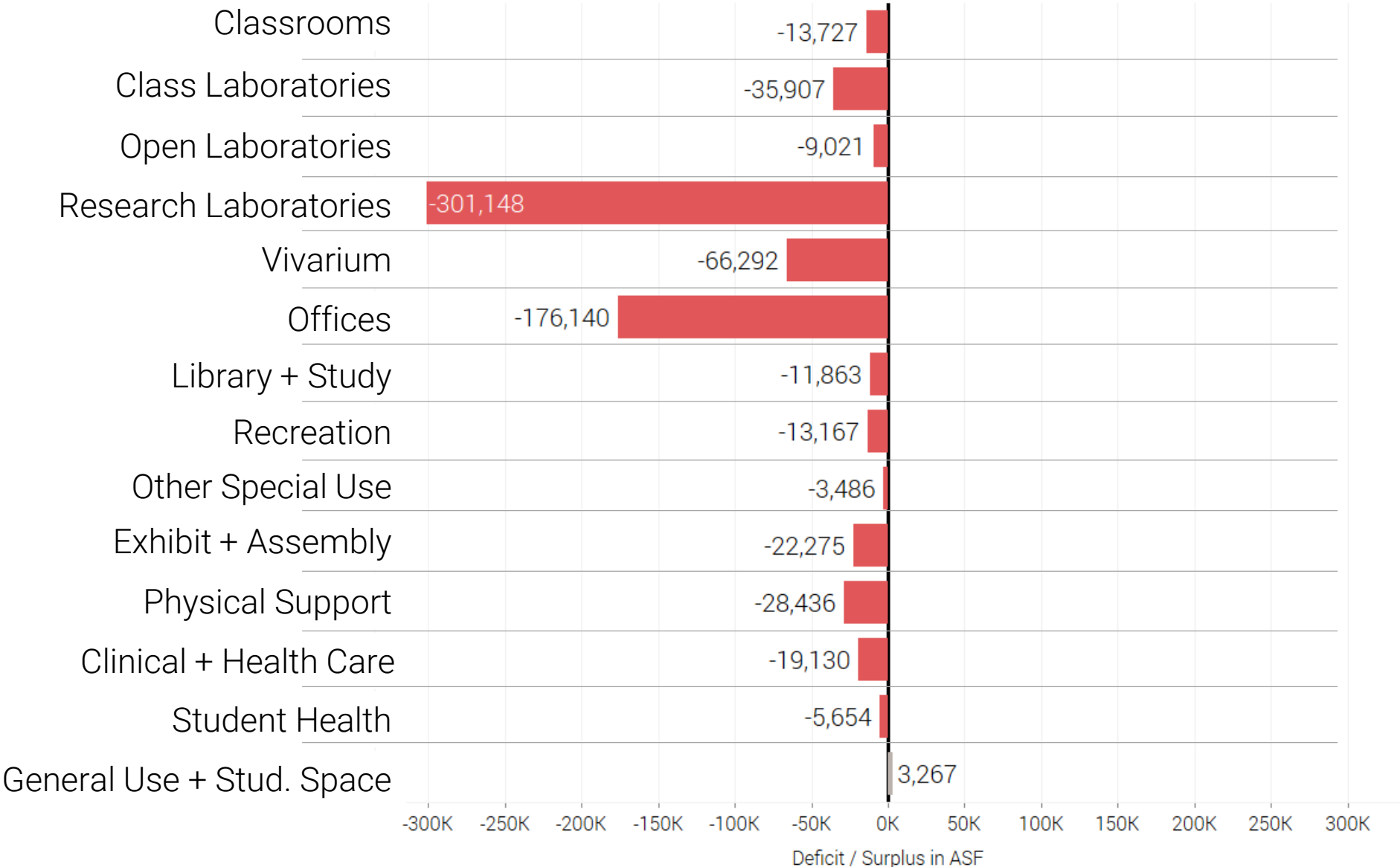
**TOTAL DEFICIT
74,438 ASF**

- Deficit
- Within Metrics*
- Surplus

**Within Metrics is defined as within 10% of the Existing ASF in that category*

***Other Special Use = Demonstration Space, Media Space, Other All-Purpose*

Space Gap Analysis 10-Year Vision



**TOTAL DEFICIT
702,979 ASF**

- Deficit
- Within Metrics*
- Surplus

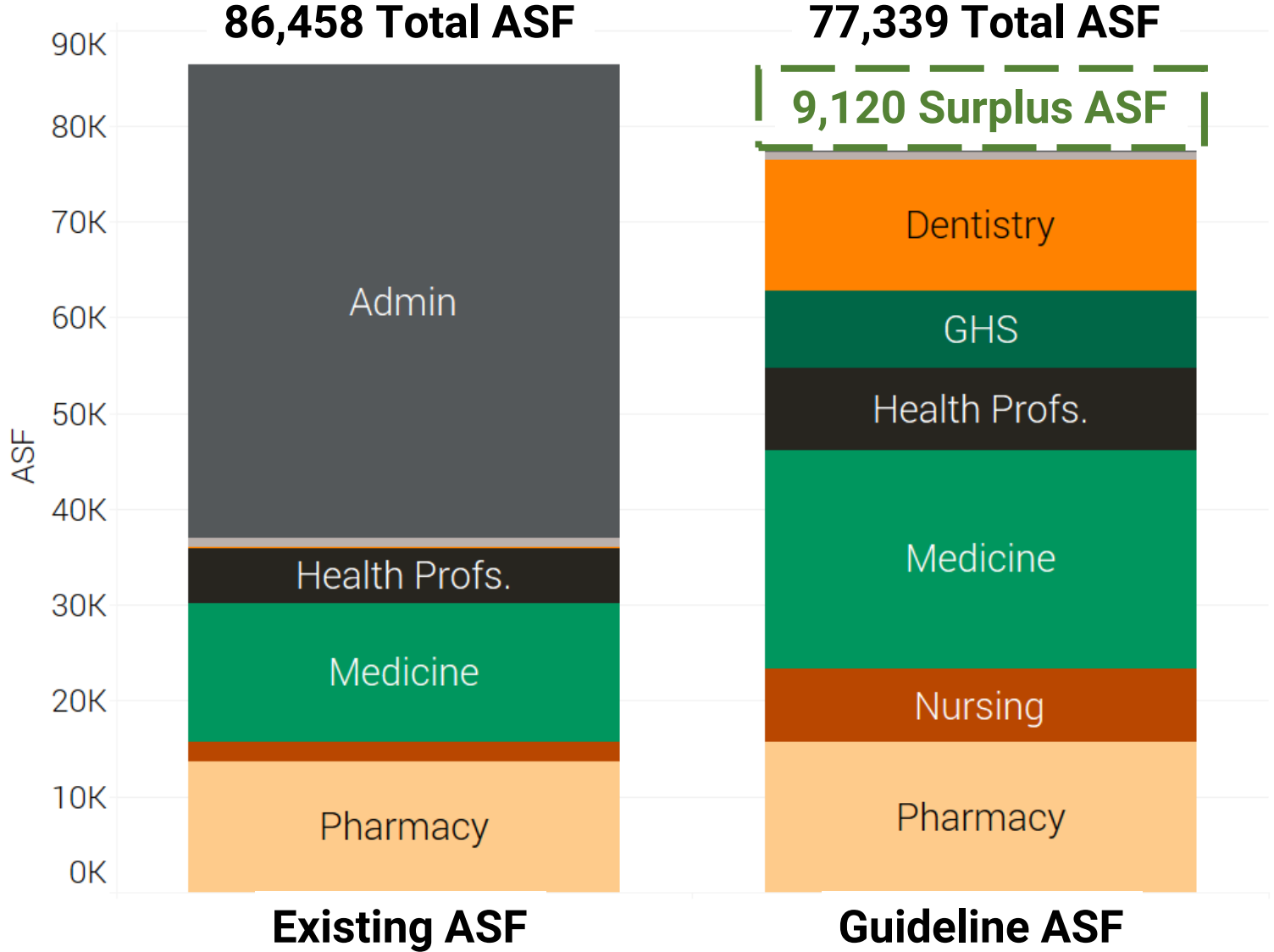
**Within Metrics is defined as within 10% of the Existing ASF in that category*

***Other Special Use = Demonstration Space, Media Space, Other All-Purpose*

Space Gap Analysis Takeaways

- Space Needs in Fall 2018 are significant, however the scale is much smaller compared to needs for the 10-Year Vision.
- The target of **doubling research** has a considerable impact on space need – this is by far the **largest category of need** for the 10-Year Vision, especially taking into consideration the combination of Research Laboratory and Vivarium needs.
- **Office needs follow behind Research** needs. This is due not only to growth in Faculty and Staff, but also the **demolition of over 125,000 ASF of Office Space** in 910 and 920 Madison.
- **The drop off** from Research and Office needs **to other categories is significant**. However, all categories show a deficit in the 10-Year Vision with one exception: General Use & Student Space. The **generated needs are primarily due to growth in enrollment**.

Classrooms – 2018 Analysis



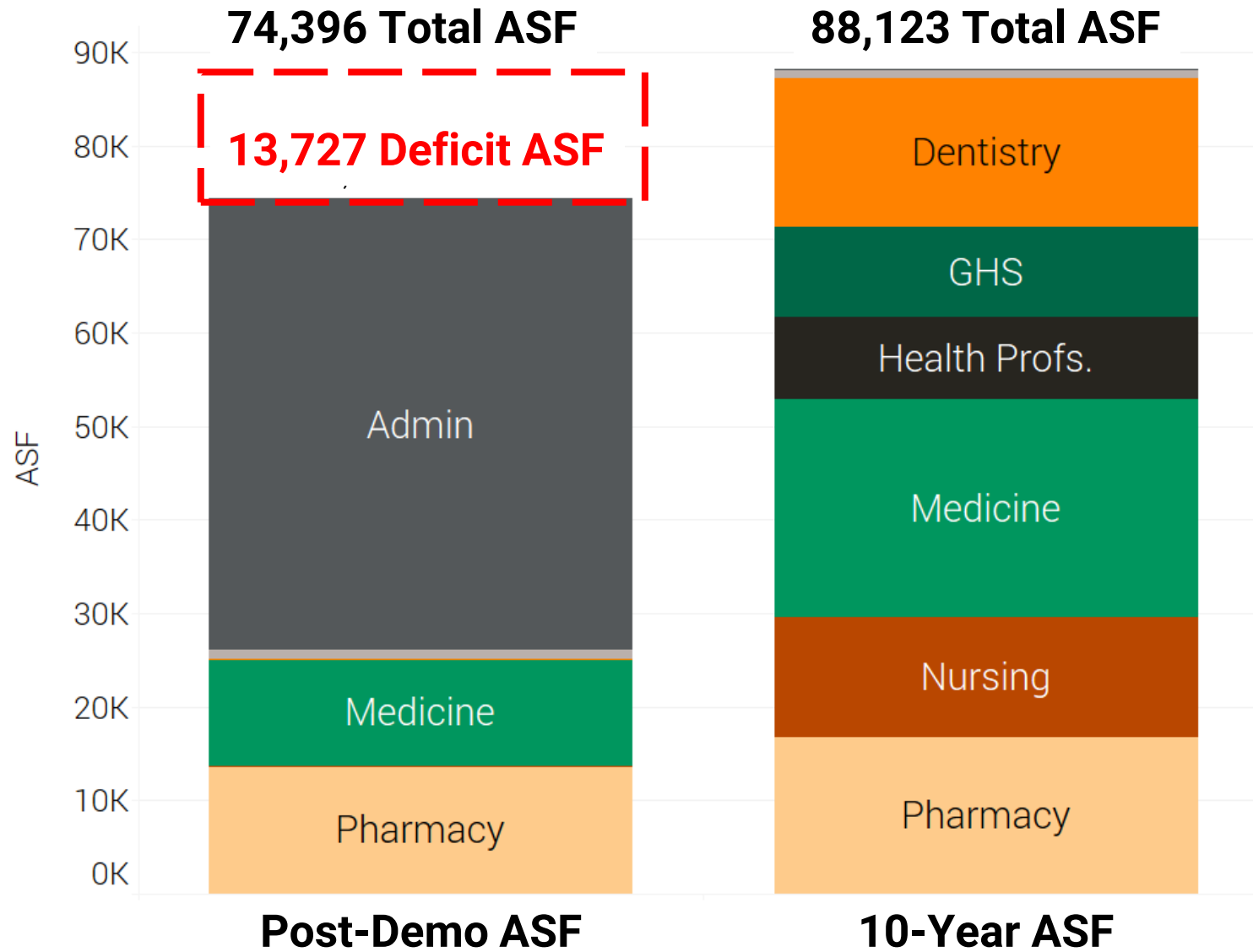
Classroom Analysis based upon WSCH extrapolated from a “normal week” – October 8th – 12th

Space Metrics driven by THEC Space Allocation metrics as discussed

The majority of existing Classroom ASF is held by Administrative Units, while the WSCH are generated in the Colleges.

- Admin
- Dentistry
- Libraries
- GHS
- Health Profs.
- Nursing
- Medicine
- Pharmacy

Classrooms – 10-Year Analysis



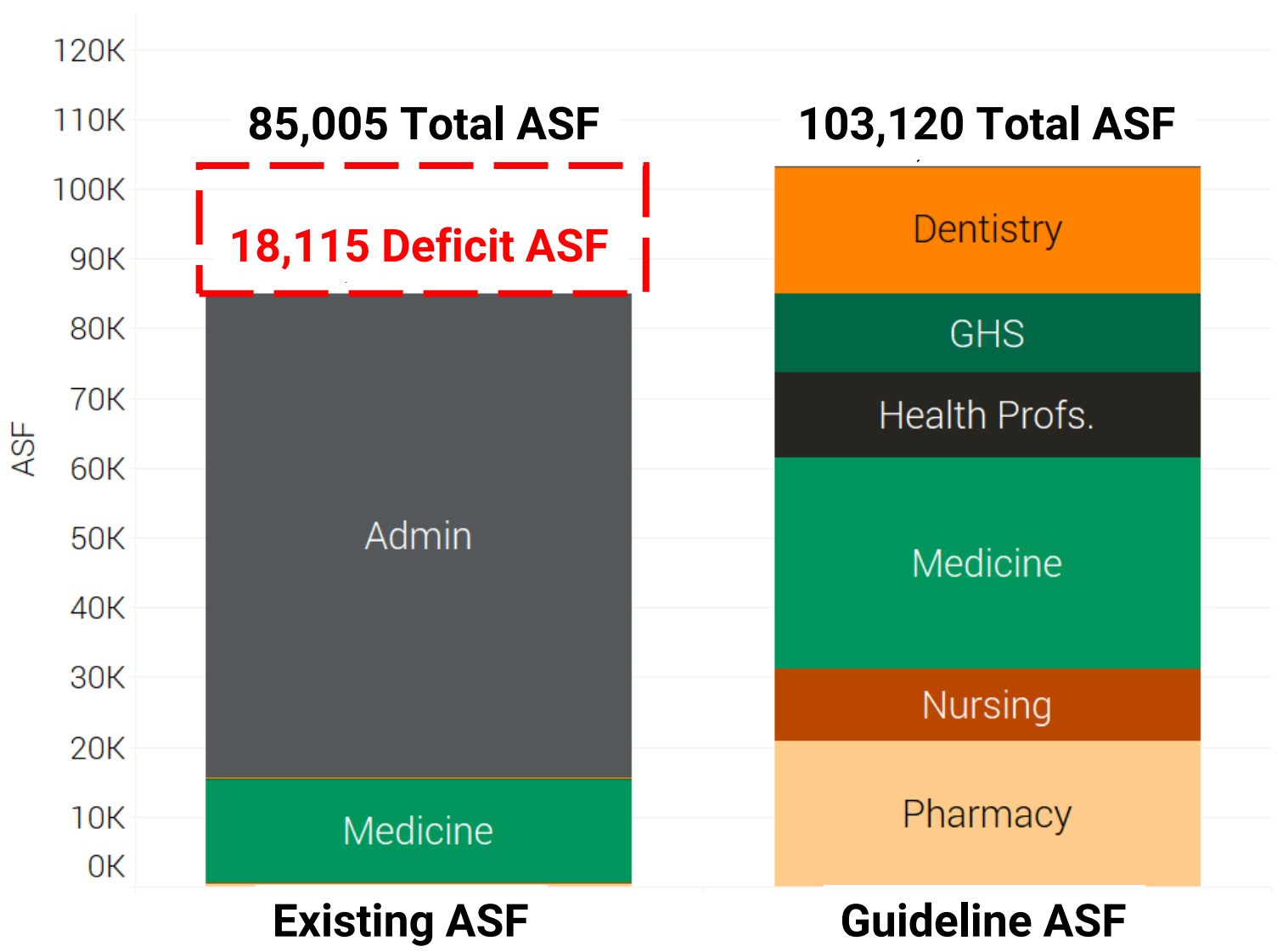
WSCH growth was projected based upon Enrollment growth as defined by the Colleges

Space Metrics driven by THEC Space Allocation metrics as discussed

The majority of existing Classroom ASF is still held by Administrative Units. Demolished Classroom space in 910 and 920 Madison was primarily used by Medicine, Nursing, and Health Professions.

- Admin
- Dentistry
- Libraries
- GHS
- Health Profs.
- Nursing
- Medicine
- Pharmacy

Class Laboratories – 2018 Analysis



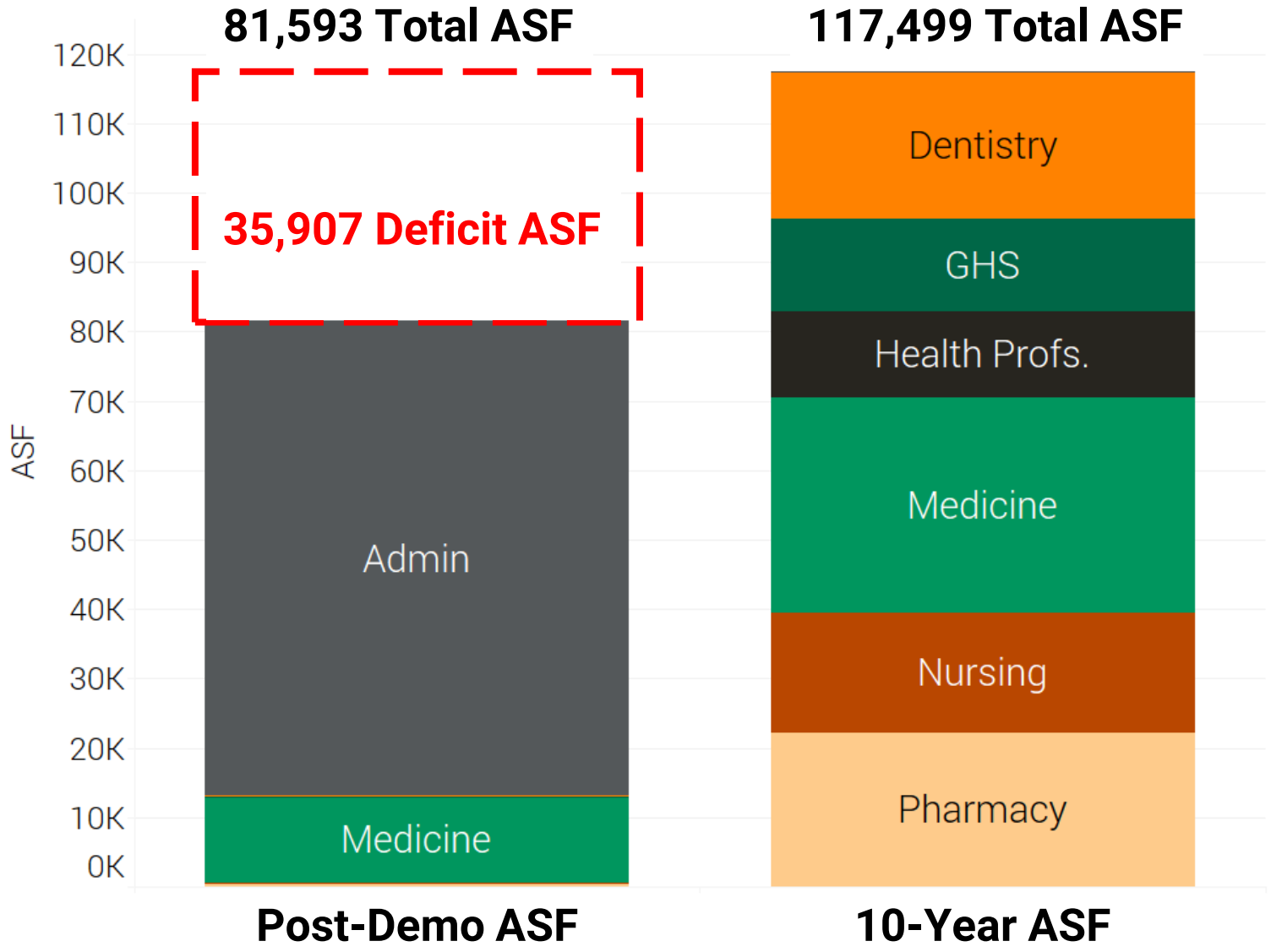
Class Laboratory Analysis based upon WSCH extrapolated from a “normal week” – October 8th – 12th

Space Metrics driven by THEC Space Allocation metrics as discussed

The majority of existing Class Lab ASF is held by Administrative Units, while the WSCH are generated in the Colleges.

- Admin
- Dentistry
- Libraries
- GHS
- Health Profs.
- Nursing
- Medicine
- Pharmacy

Class Laboratories – 10-Year Analysis



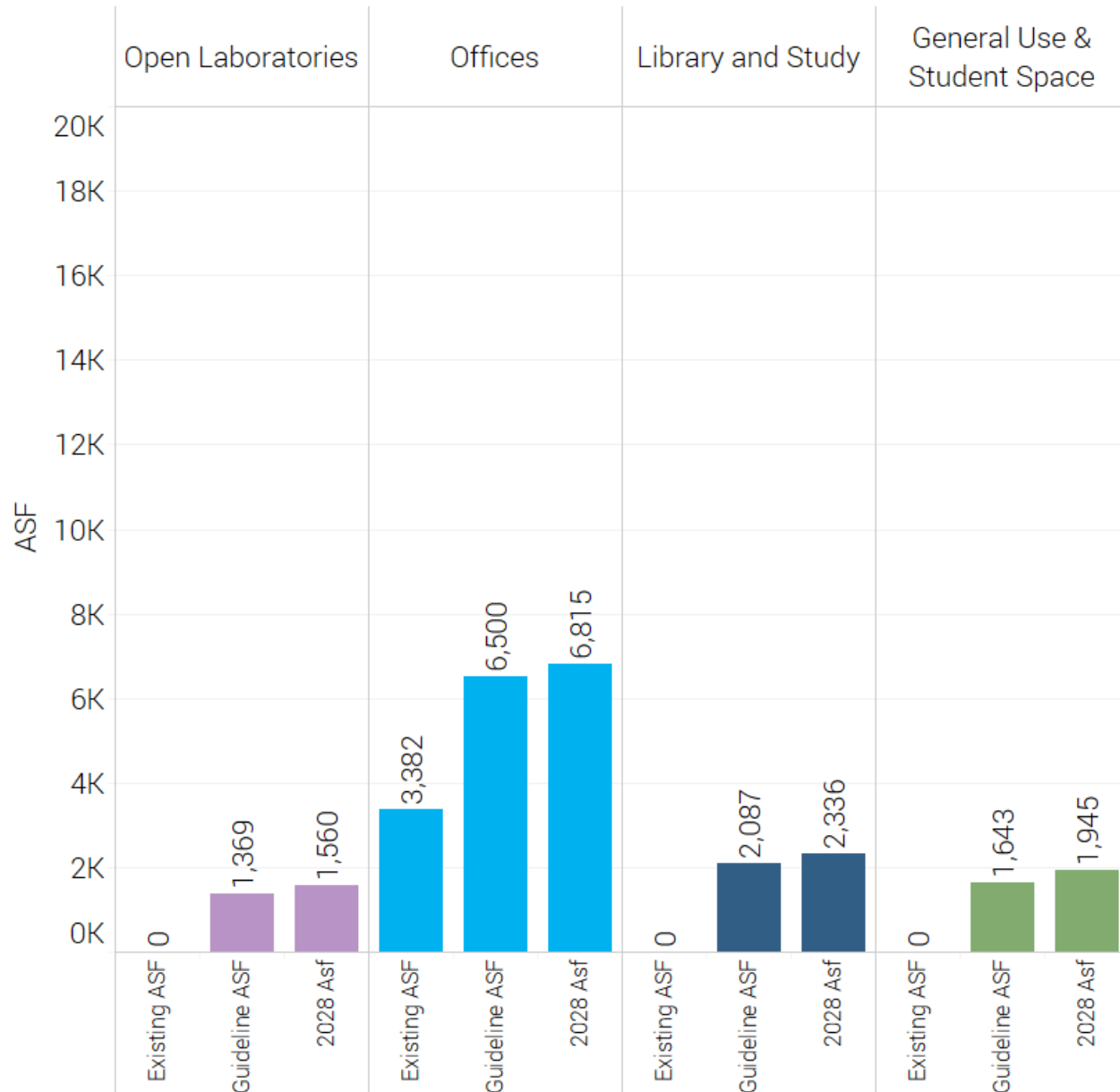
WSCH growth was projected based upon Enrollment growth as defined by the Colleges

Space Metrics driven by THEC Space Allocation metrics as discussed

The majority of existing Class Lab ASF is still held by Administrative Units. Demolitions primarily left Class Labs unaffected, with Medicine and Administrative Units losing a small amount of space.

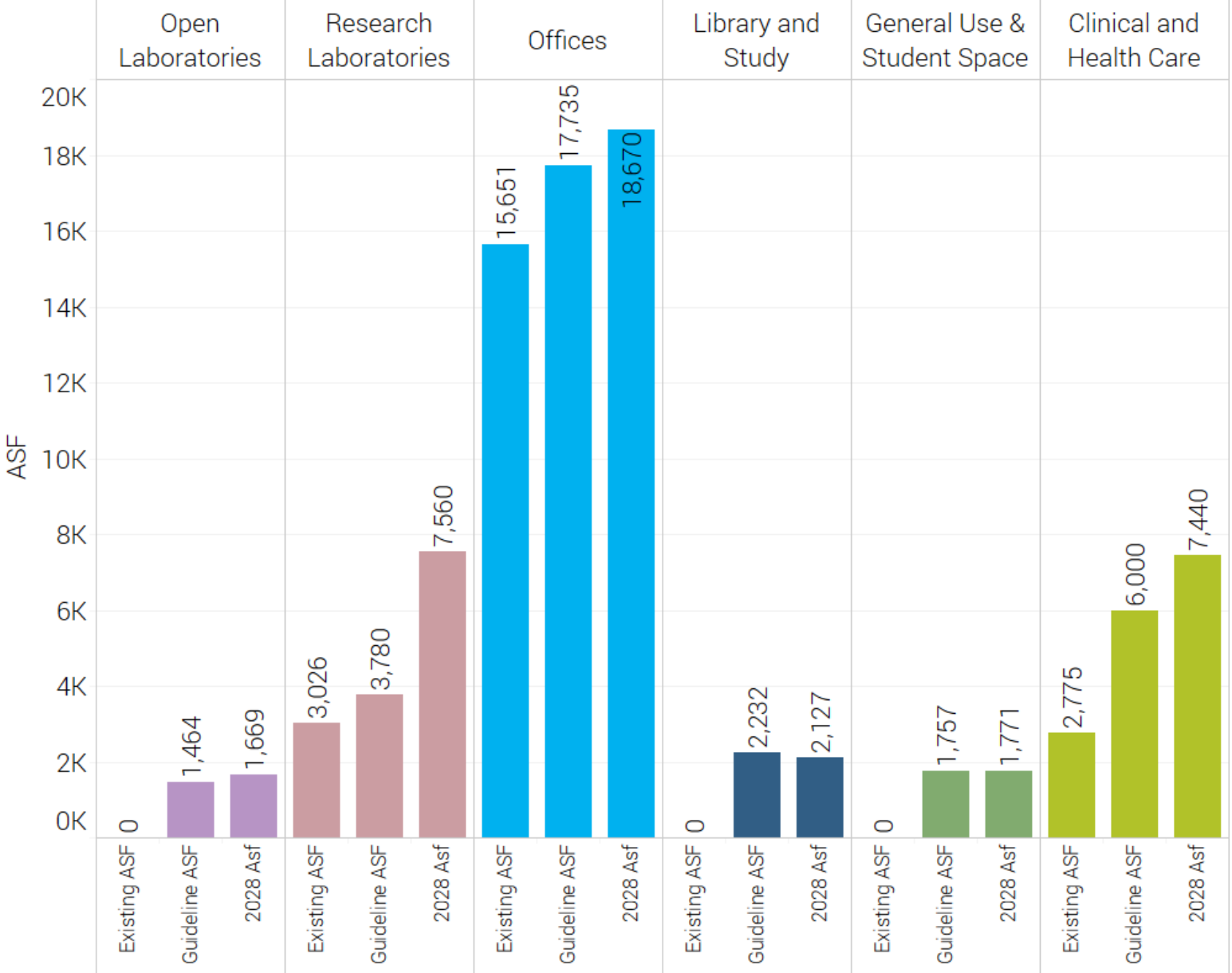
- Admin
- Libraries
- Health Profs.
- Medicine
- Dentistry
- GHS
- Nursing
- Pharmacy

Analysis by Unit: Graduate Health Sciences



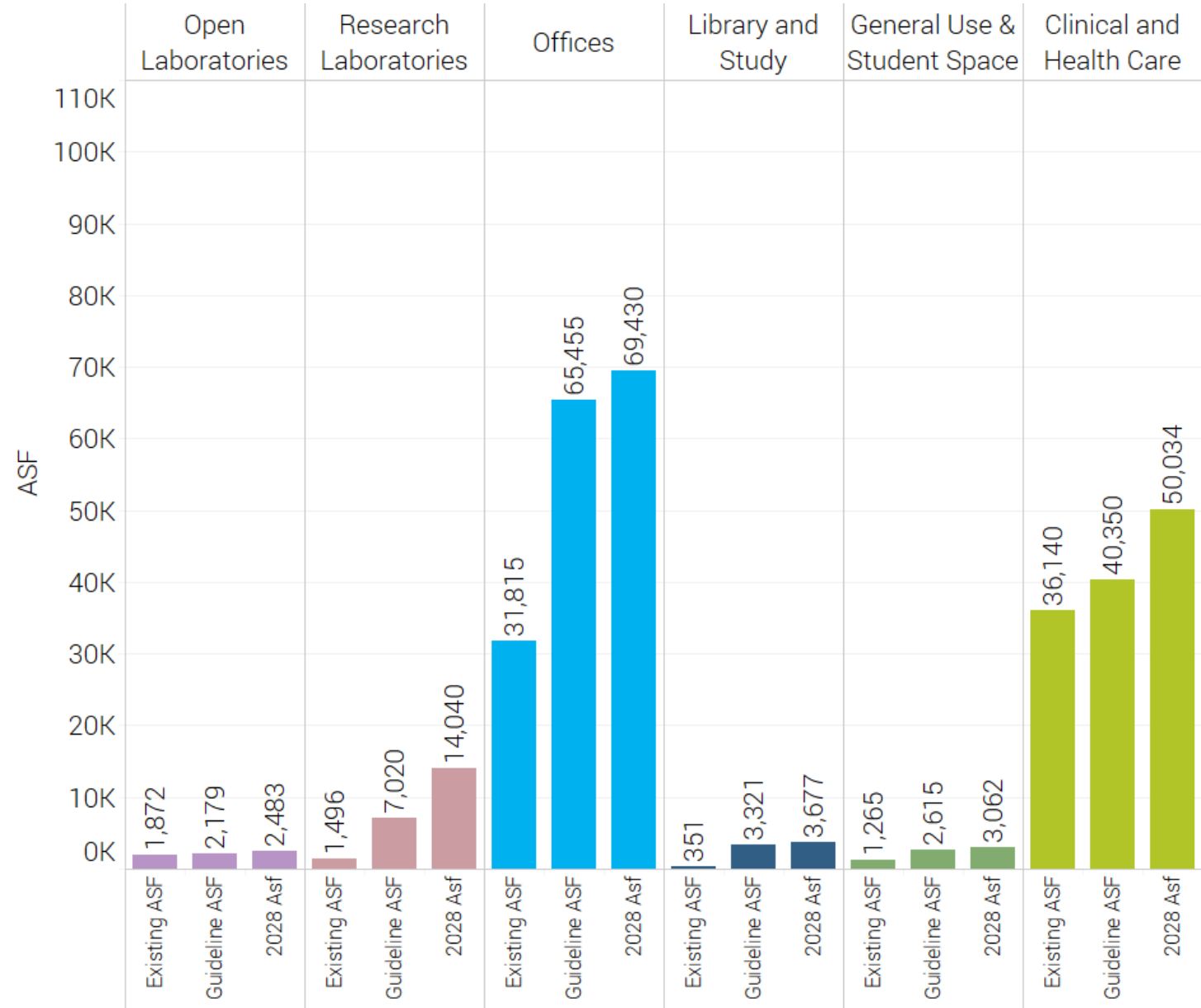
**Note – the scale for each College/Unit graph changes based on their amount of existing ASF.*

Analysis by Unit: Health Professions



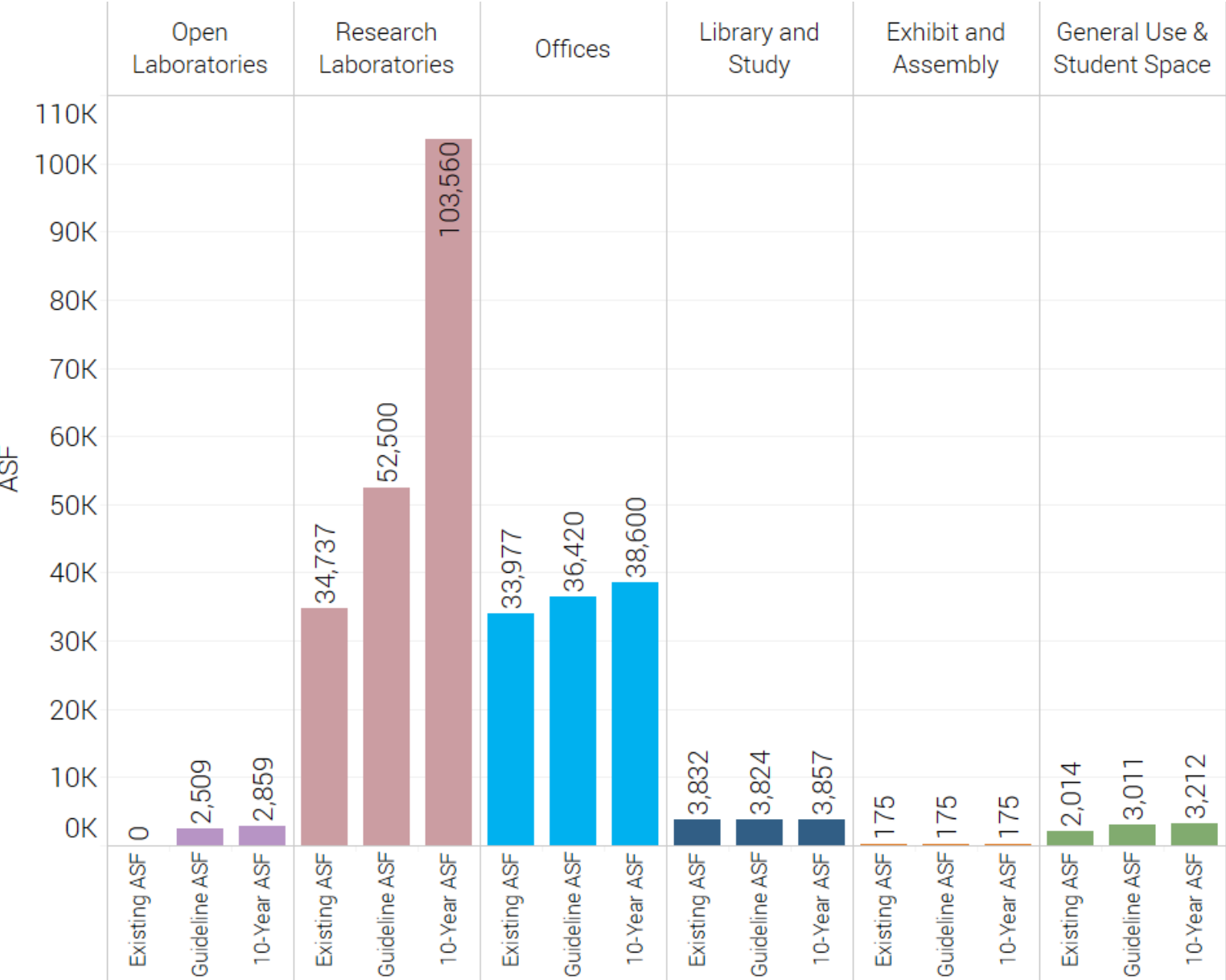
**Note – the scale for each College/Unit graph changes based on their amount of existing ASF.*

Analysis by Unit: Dentistry



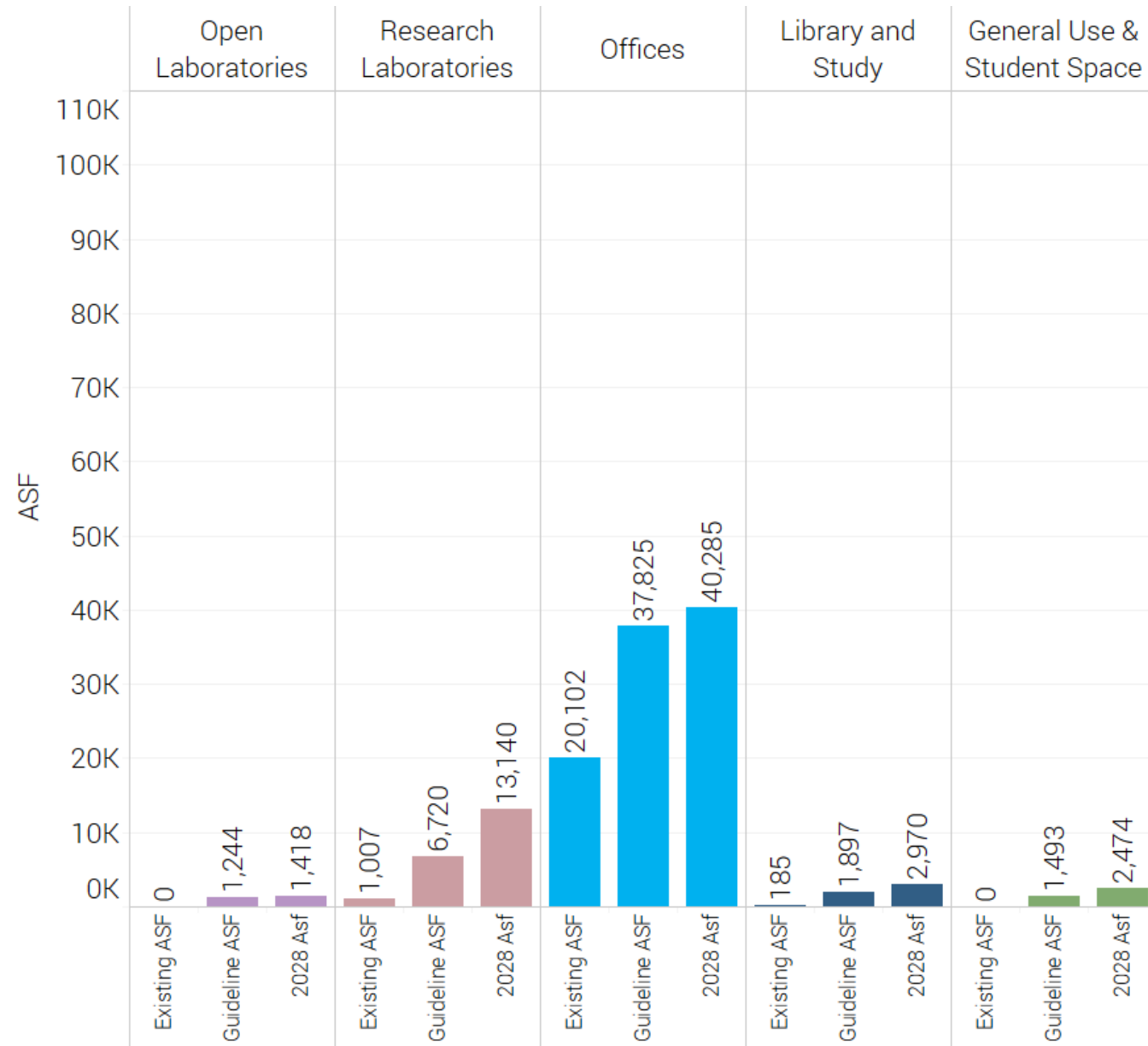
**Note – the scale for each College/Unit graph changes based on their amount of existing ASF.*

Analysis by Unit: Pharmacy



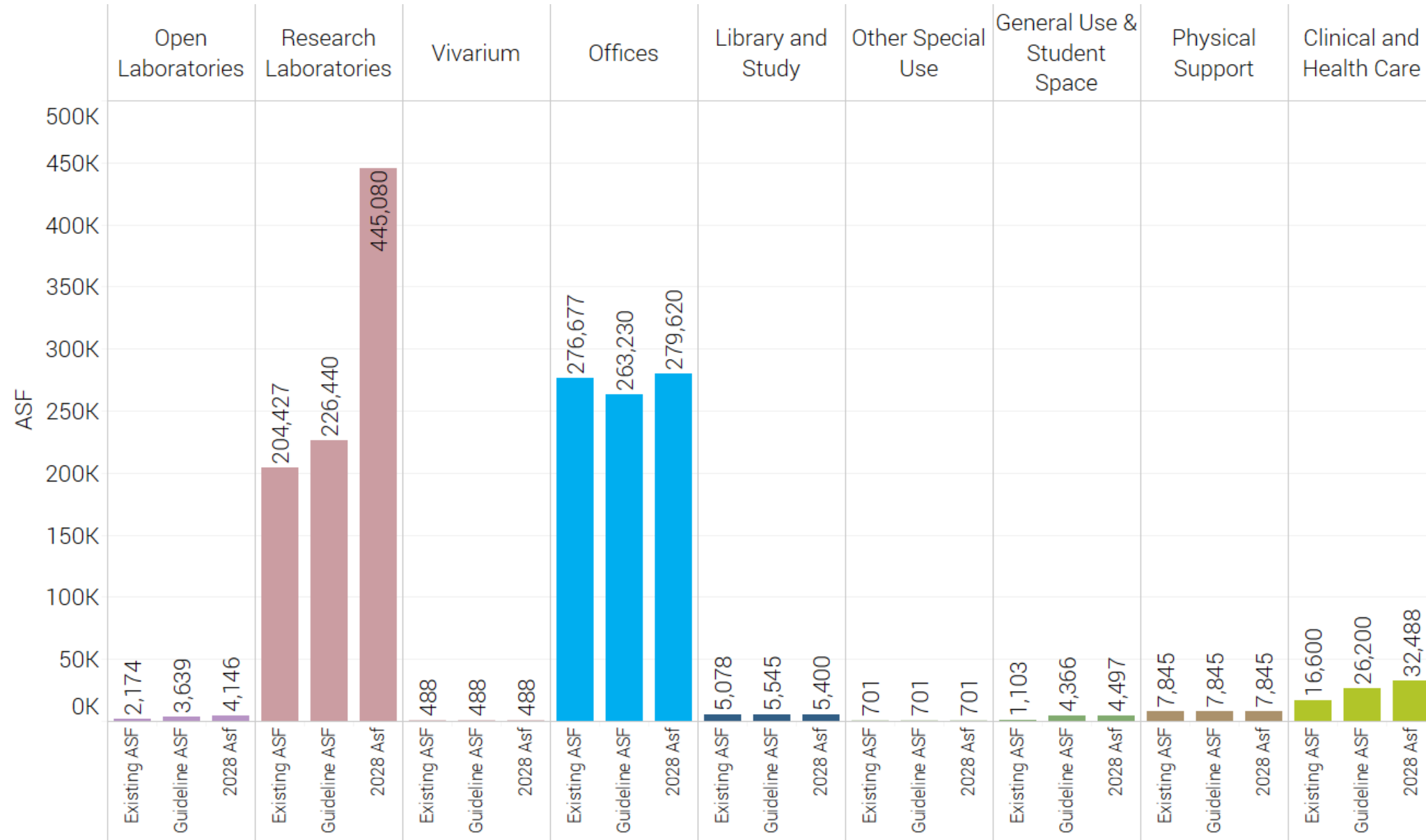
**Note – the scale for each College/Unit graph changes based on their amount of existing ASF.*

Analysis by Unit: Nursing



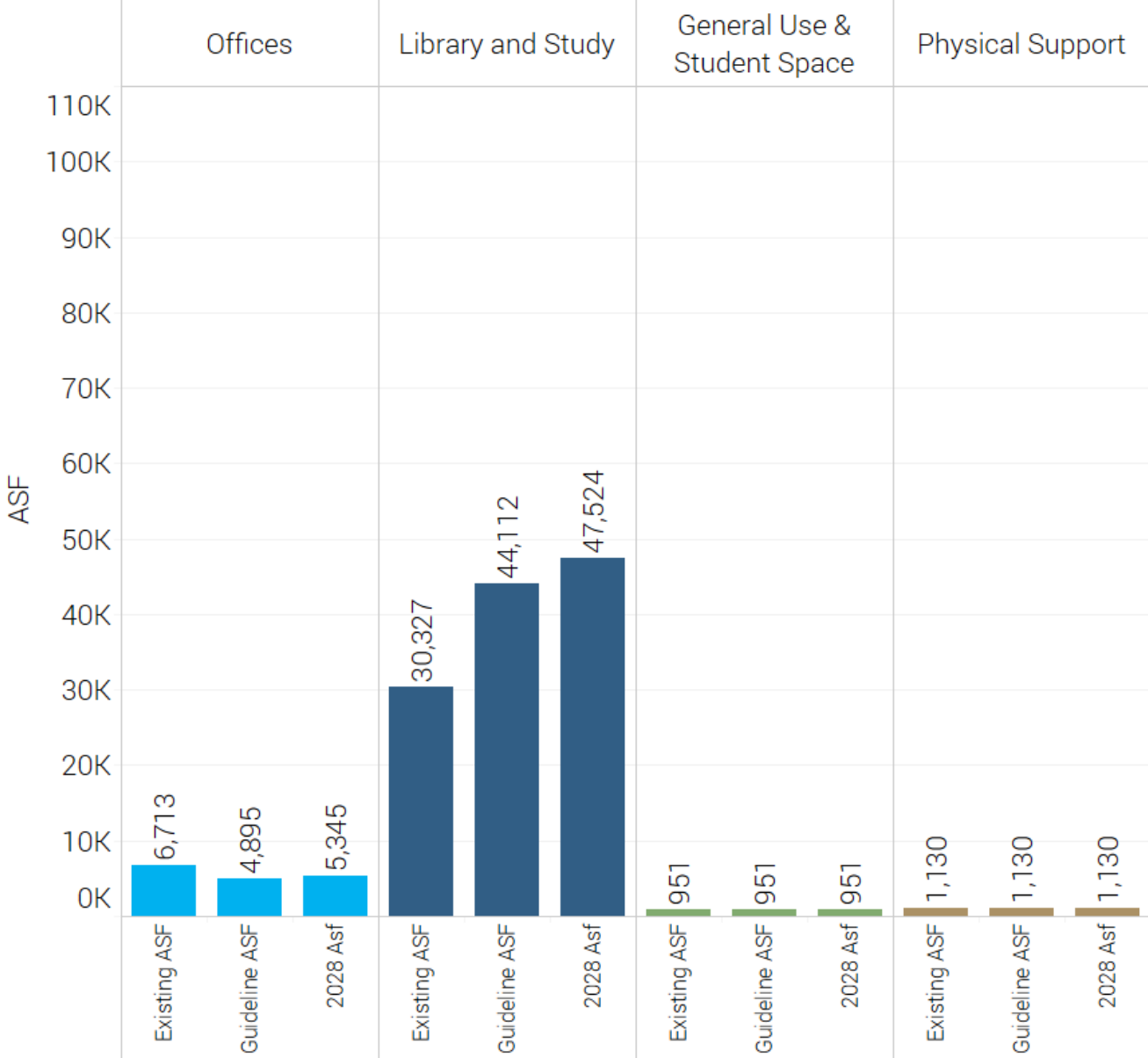
**Note – the scale for each College/Unit graph changes based on their amount of existing ASF.*

Analysis by Unit: Medicine



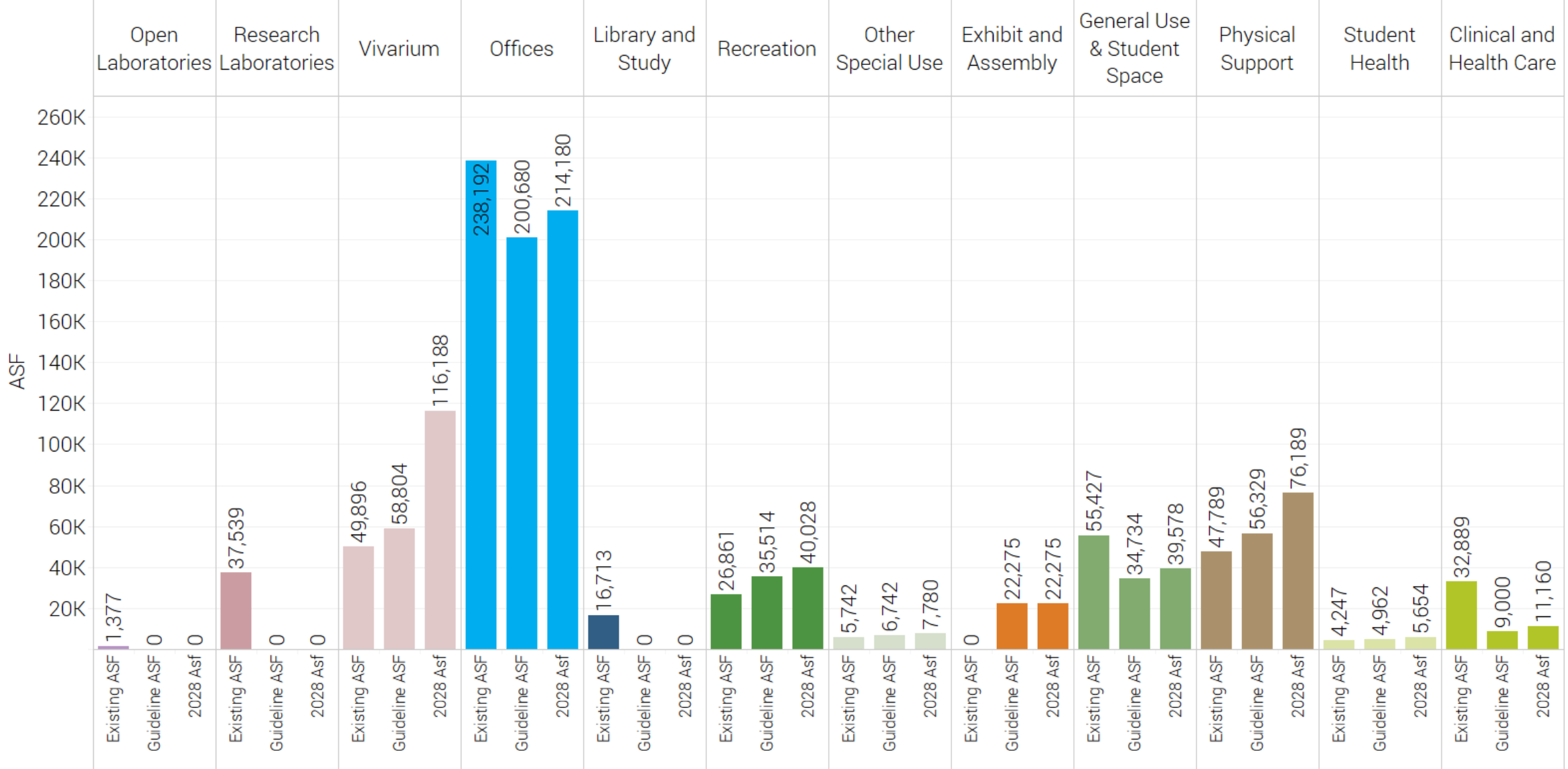
**Note – the scale for each College/Unit graph changes based on their amount of existing ASF.*

Analysis by Unit: Libraries



**Note – the scale for each College/Unit graph changes based on their amount of existing ASF.*

Analysis by Unit: Administration



**Note – the scale for each College/ Unit graph changes based on their amount of existing ASF.*

Analysis by Unit Takeaways

- **Instructional Space is generally centrally controlled**, while the space is justified through WSCH generation which occurs in the Colleges. As a result, this analysis is shown holistically on slides 14-17.
- Administrative Units have been grouped together due to the **significant use of the “General Administration”** unit in the space database.
- In many cases, it appears that some spaces are assigned to “General Administration” when they are in fact used by Academic units. This results in **significant Office Space** needs, for example, in each of the Colleges.
- As a result, the **vast majority of space need exists in the Colleges**, while Administrative Units show a surplus both today and for the 10-Year Vision overall.

Existing Parking Supply



- Employee
- Student
- Commercial
- Employee + Student
- Employee + Student + Commercial
- Metered
- Leased Parking
- Loading Docks

Existing Parking Stalls = **4,620**

Henry Turley Development = - 484

Total Parking = 4,136

Parking Capacity By Use

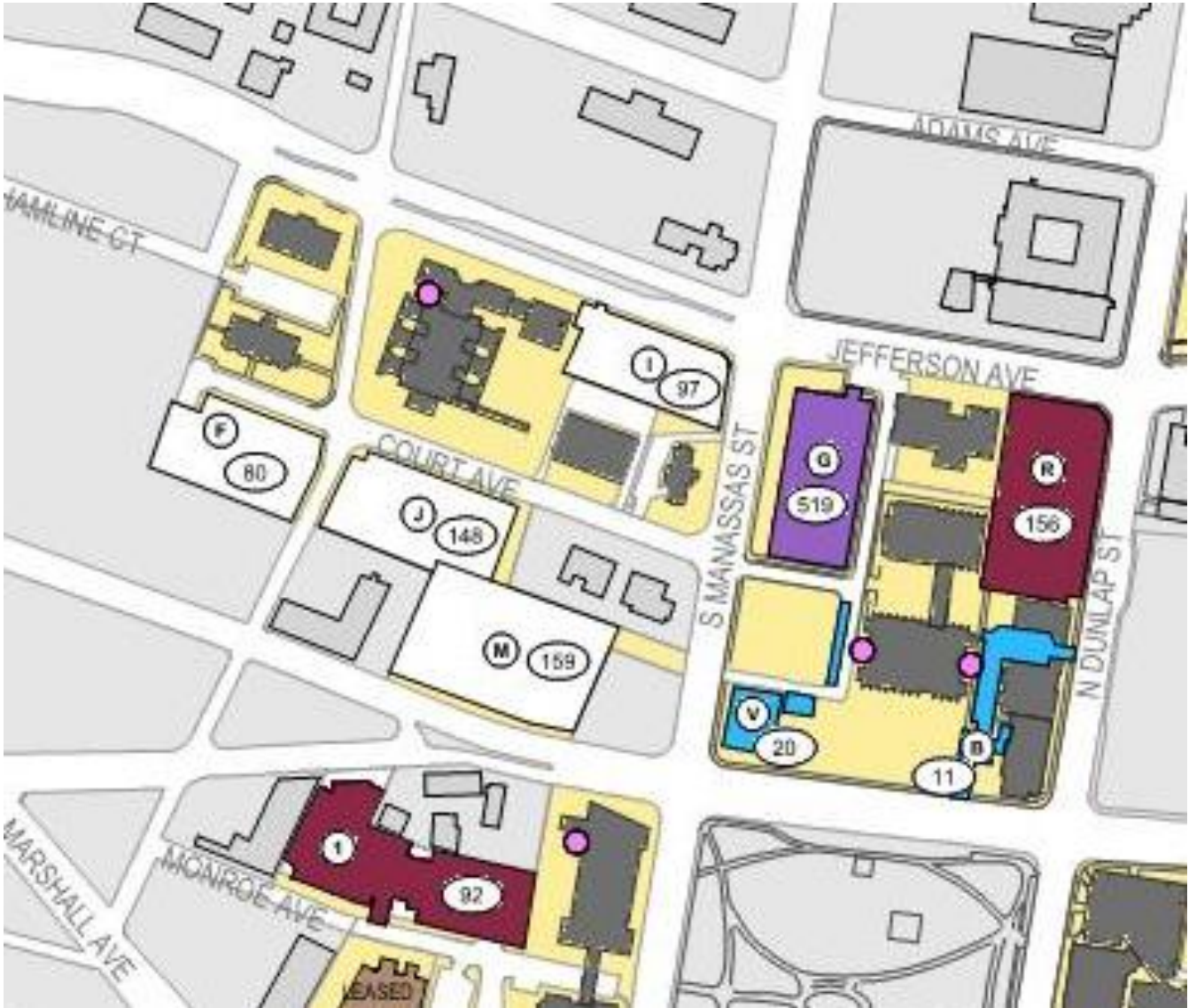
Parking Type	Number of Spaces
Employee	1,057
Student	880
Employee/Student	989
Employee/Student/Commercial	1,522
Commercial	129
Metered	43
Total	4,620

Existing Parking Supply vs. Student + Faculty + Admin Population

	Fall 2018	Fall 2023	Fall 2028
Students, Faculty, and Administration	3,912	4,135	4,319
Existing Parking Supply*	4,620	4,620	4,620
Parking Supply After Turley Development	4,136	4,136	4,136
Parking Ratio Before Turley	1.18	1.12	1.07
Parking Ratio After Turley	1.06	1.00	0.96

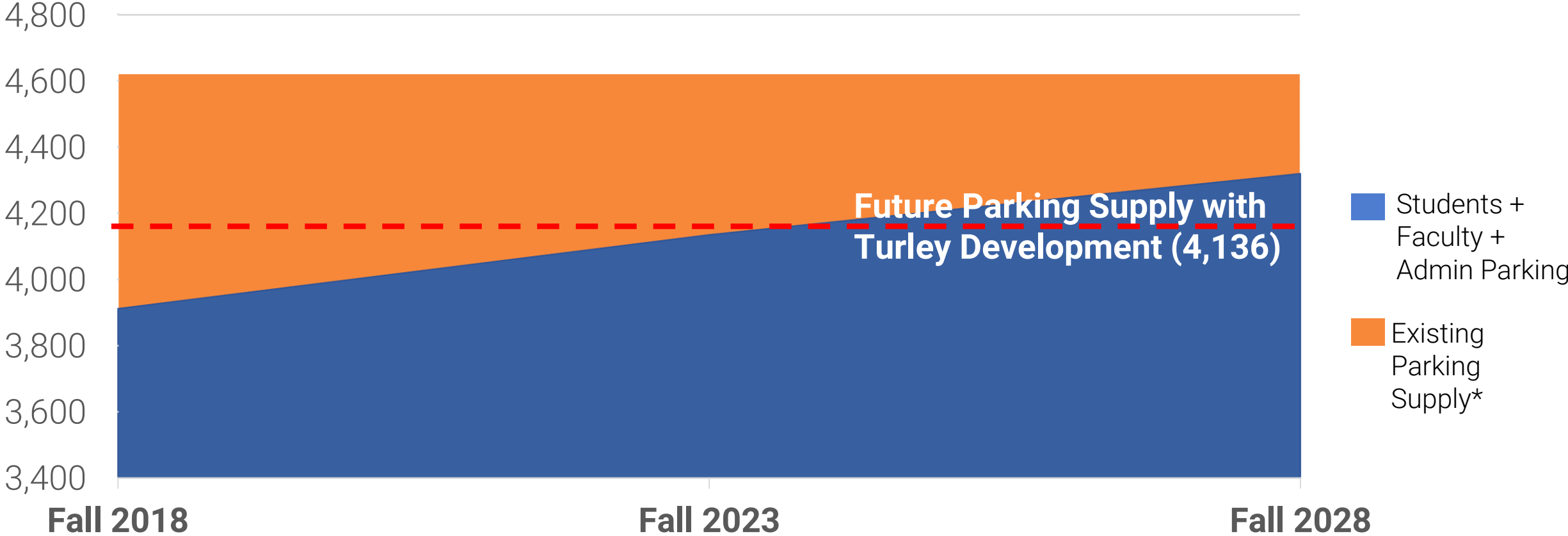
**Any existing parking lots or garages that are removed or repurposed will reduce the available parking supply.*

Parking Impact of Redevelopment

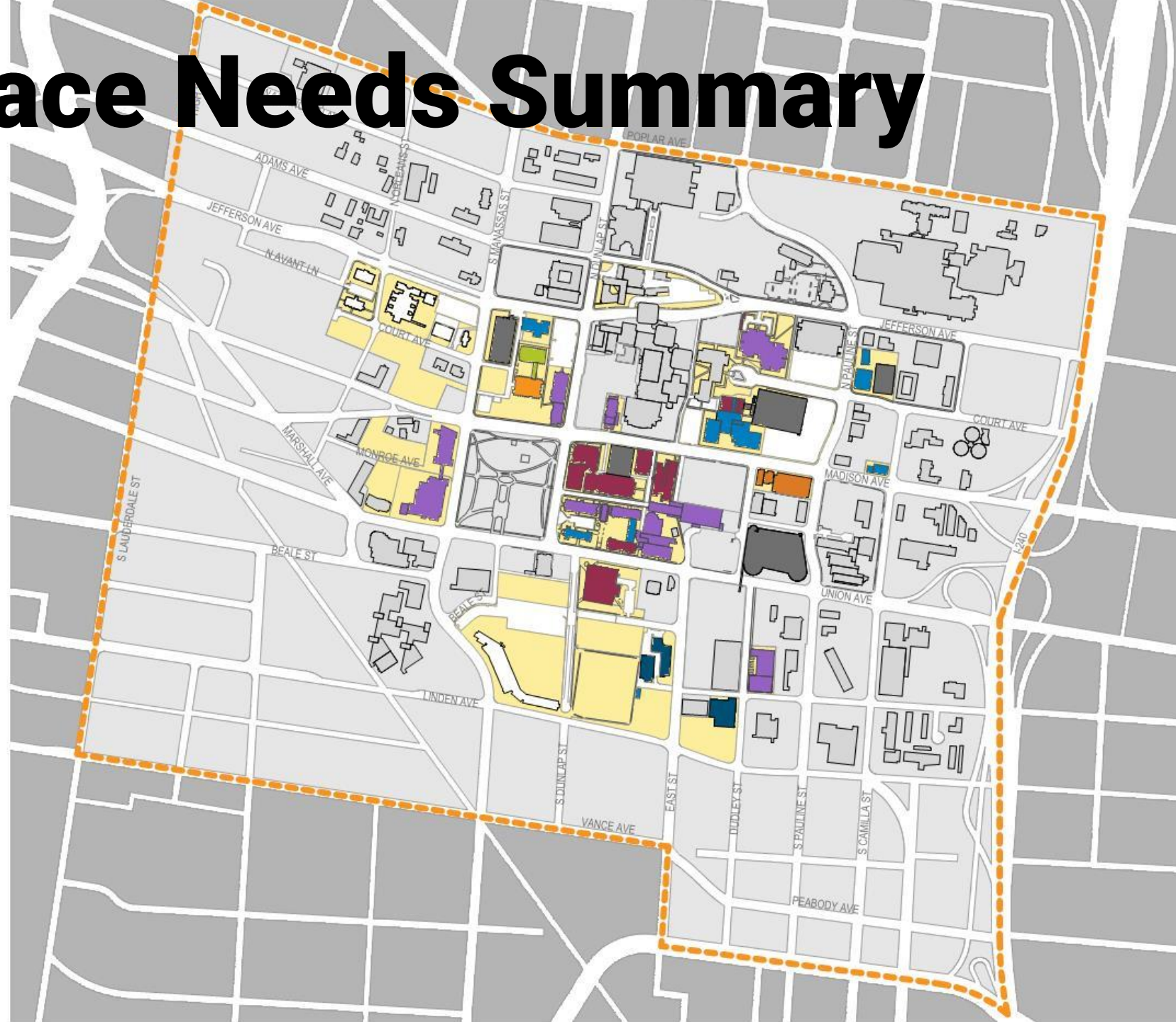


- Employee
- Student
- Commercial
- Employee + Student
- Employee + Student + Commercial
- Metered
- Leased Parking
- Loading Docks

Existing Parking Supply vs. Student + Faculty + Admin Population



Space Needs Summary



PROGRAM BLOCKS

**NUMBER OF FLOORS IS INDICATED ON THE BLOCK

ACADEMIC: 70,518 ASF



RESEARCH: 367,440 ASF



STUDENT LIFE: 31,415 ASF



RECREATION + FITNESS: 13,167 ASF



ADMINISTRATIVE: 176,140 ASF



FACILITY SUPPORT: 28,338 ASF



PARKING: 500 STALLS



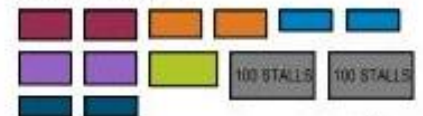
DINING: 0 ASF

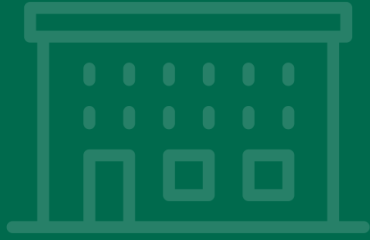


CLINICAL: 19,130 ASF



WILDCARDS:





Goals and Principles

Campus Master Plan Goals

Academic Goals

- Improve **student support**
- Implement **cutting edge technologies** for teaching and supporting education
- Expand **clinical simulation**
- Facilitate **inter-professional opportunities** for students and faculty
- Ensure the **quality** of all UTHSC academic programs and facilities



Campus Master Plan Goals

Research Goals

- Provide **strong core facilities** with new strategic centers
- Link **clinical and basic science researchers** in creative ways
- Foster **collaboration** with **integrated spaces**
- Encourage **cross-disciplinary teams**
- Identify space for **joint ventures with private industry**



Campus Master Plan Goals

Clinical Goals

- Create a **healing environment**
- Broadcast **clinical expertise and knowledge**
- Engage pedestrians and **facilitate interaction**
- **Strengthen connections** between satellite clinical facilities and their campus “home base”
- Cluster **outpatient services**



Campus Master Plan Principles

Design Principles

- **Embrace the urban context** and foster easy connections with partners
- Improve campus corridors and create **“complete streets”**
- Develop a **“UT Loop”** with campus landmarks
- **Enhance campus open space**; make it more useful and attractive
- Create a **“pedestrian spine”** along Monroe Avenue
- Coordinate utilities and circulation with **campus tunnels**
- **Improve Health Sciences Park as the campus heart**
- Showcase research and clinical **centers of excellence**



Big Ideas Review

Big Ideas Activity Recap

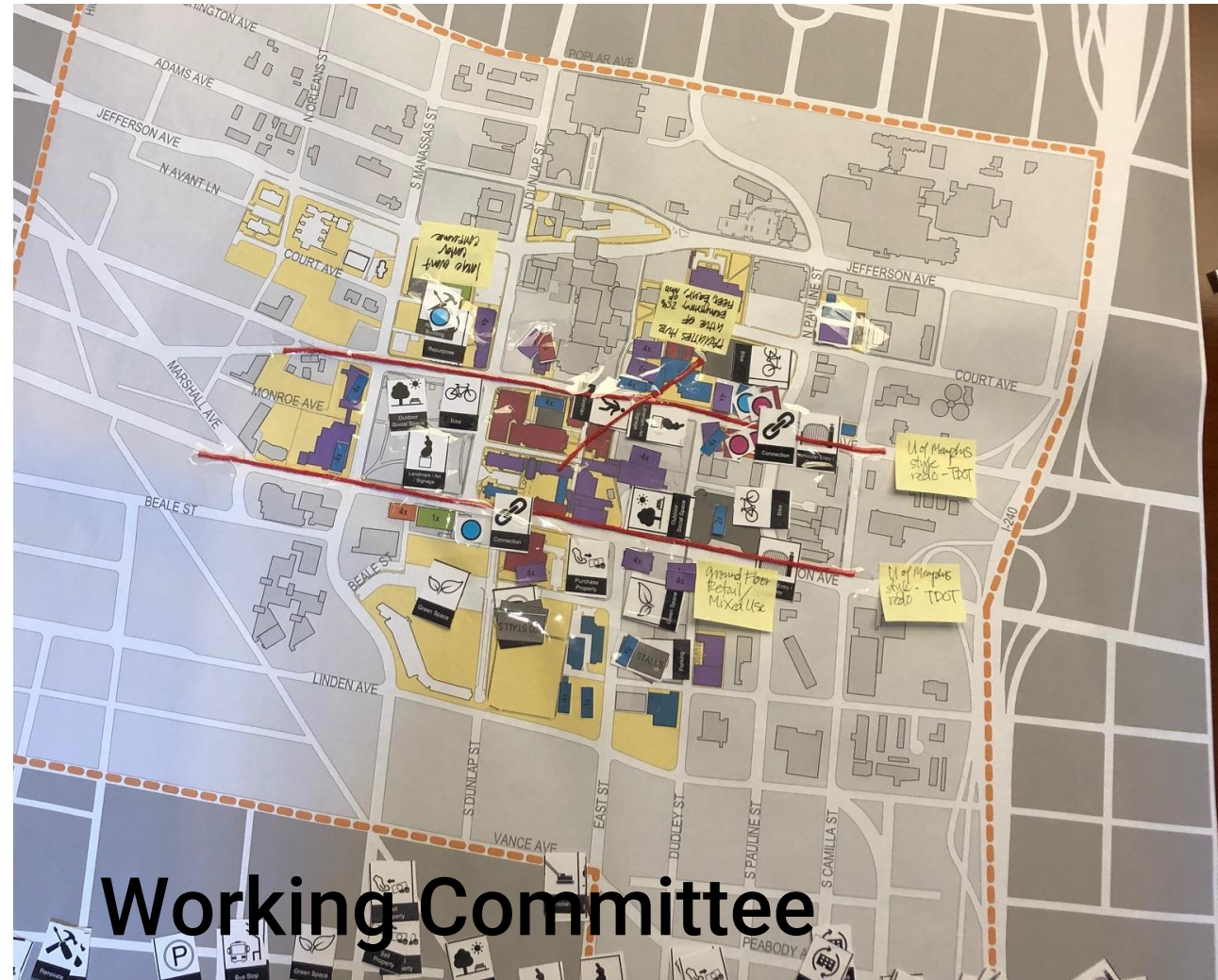


Clinical Focus Group



Research Focus Group

Big Ideas Activity Recap



Next Steps

July 10 – 11

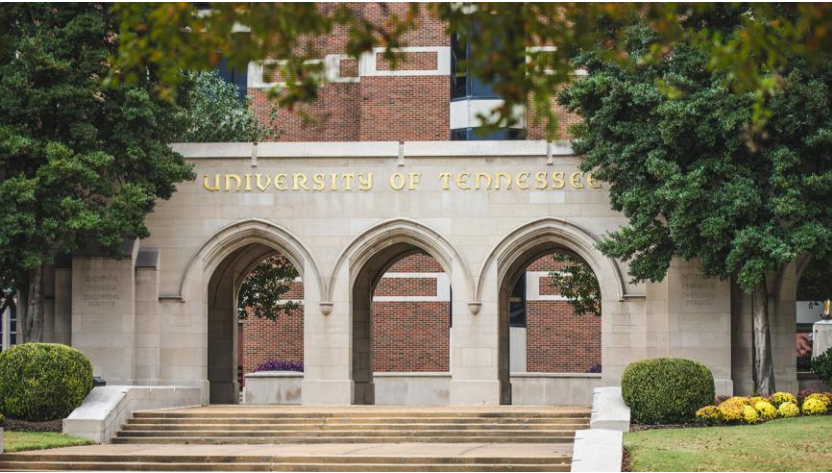
Workshop 04

- Finalize Space Needs Analysis
- Finalize Goals + Principles
- Review Concepts
- Hold Public Events:
 - Campus Open House
 - Community Open House



University of Tennessee Health Science Center

2019 Campus Master Plan Update



Thank you!

