

Campus Space Utilization Reporting

Regent Finance Committee
March 26, 2024



University of Colorado

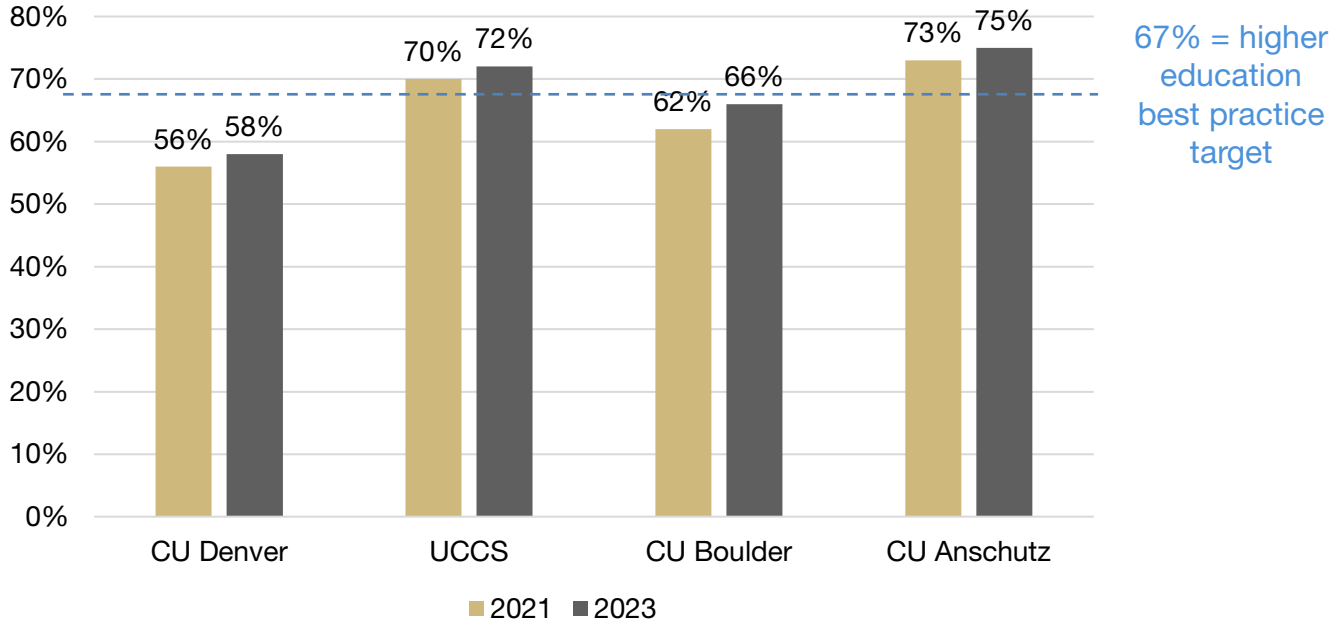
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Introduction

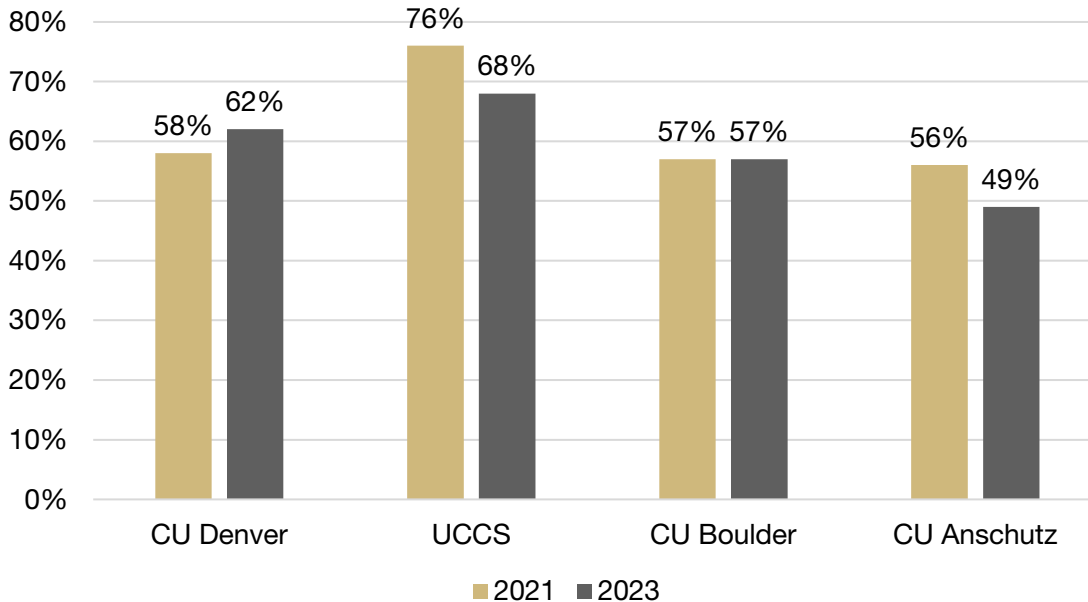
- Frequency of reporting
- Why we report on utilization
 - Used to determine space needs
 - Helps in strategic planning and cost-effective facility management
 - Avoid unnecessary new construction
- Space utilization best practices
- Additional reporting
 - Space planning and hybrid work
 - Appendix
 - Campus building inventory
 - Planning efforts
 - Assessment of other space needs



Total Classroom Utilization, By Campus



Total Laboratory Utilization, By Campus





CU Denver



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CU Denver: Classroom and Lab Utilization

	Type	Number	Average Seats	Total Sections	Total Credit Hours	Average Scheduled Hrs/Wk	Percent Occupancy
Fall 2021	Classrooms	108	40	884	65,301	26.1	56%
	Laboratories	79	28	423	17,544	19.2	58%
	Total	187	36	1,307	82,845	24.4	56%
	Other	12	20	28	940	6.8	39%
Fall 2023	Classrooms	109	40	881	68,895	22.8	58%
	Laboratories	83	28	431	18,265	18.0	62%
	Total	192	36	1,312	87,160	21.3	59%
	Other	13	20	36	1,152	6.8	44%
Change	Classrooms	1	-	(3)	3,594	(3.3)	2%
	Laboratories	4	-	8	721	(1.2)	4%
	Total	5	-	5	4,315	(3.1)	3%
	Other	1	-	8	212	(0.2)	5%

CU Denver: Classroom and Lab Utilization

Fall 2021 v. 2023

- On-campus in-person and hybrid course scheduling increased slightly, but overall mix is still more heavily online than pre-pandemic levels
- Total credit hours increased for both classrooms (+3,594) and laboratories (+721) with some larger, higher student credit hour classes returning to campus. Occupancy rates also increased with this trend
- Total number of classroom and laboratories increased (+5)
- Scheduled hours per week decreased for both classrooms (-3.3) and laboratories (-1.2), given the increase in scheduled rooms and larger classes consolidating into higher capacity classrooms

CU Denver: Space Planning and Hybrid Work

Space Planning

- New construction for high need and growth areas only
 - Shift focus to reusing existing space
- New practices:
 - Space requests require AVC/Dean approval. Work patterns inform decision-making
 - New space agreements are recorded and include language about space “ownership”
 - Ability to assess building usage patterns results from new building badging system

CU Denver: Space Planning and Hybrid Work

Hybrid Work

- Employee work modality determined by unit leader
 - Options include: 3, 4, or 5 days on campus
- 92% of staff work a hybrid schedule, 8% of staff are fully remote
 - Faculty schedules continue to be determined by teaching schedule and modality
- Hybrid work is expected to keep space needs below pre-pandemic levels and affect how space assignments are made

A scenic mountain valley with a sun flare and lens effects. The sun is low in the sky, creating a bright glow and lens flare effects. The valley is filled with dense evergreen forests, and the mountains are rugged and rocky. The sky is blue with scattered white clouds. The overall mood is bright and natural.

UCCS



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UCCS: Classroom and Lab Utilization

	Type	Number	Average Seats	Total Sections	Total Credit Hours	Average Scheduled Hrs/Wk	Percent Occupancy
Fall 2021	Classrooms	55	49	859	80,408	42.2	70%
	Laboratories	33	24	213	6,463	15.6	76%
	Total	88	43	1,072	86,871	24.3	71%
	Other	64	41	525	35,654	23.1	74%
Fall 2023	Classrooms	71	49	1,235	83,652	55.3	72%
	Laboratories	46	24	211	7,677	18.8	68%
	Total	117	39	1,446	91,329	41.0	72%
	Other	40	55	338	21,992	14.9	75%
Change	Classrooms	16	-	376	3,244	13.1	2%
	Laboratories	13	-	(2)	1,214	3.2	(8%)
	Total	29	(4)	374	4,458	16.7	1%
	Other	(24)	14	(187)	(13,662)	(8.2)	1%

Totals do not include online classes that do not have an in-person component.

UCCS: Classroom and Lab Utilization

Fall 2021 v. 2023

- Classroom and laboratory utilization increased as class offerings returned to hybrid and in-person
- Total number of classroom and laboratories increased (+24)
 - Hybrid course instruction transitioned from auditoriums to smaller classrooms to improve in-person outcomes and access to technology
- Average scheduled hours per week increased for both classrooms (+13.1) and laboratories (+3.2)
- Total credit hours increased for both classrooms (+3,244) and laboratories (+1,214)
- Number of after-hours course offerings (late evening) increased to accommodate non-traditional student population

UCCS: Space Planning and Hybrid Work

No changes to space allocation policy or scheduling since 2020

- Scheduling:
 - Registrar centrally manages classes/lab spaces
 - College/department manage assigned classes, labs, and meeting spaces
 - Event Services centrally manages student affairs/auxiliary funded spaces
 - More opportunity to schedule courses due to upgrades to academic and conference spaces

Data not available on number of employees that work hybrid schedule

- Supervisors determine employee eligibility to work hybrid schedule
 - 3+ days on-campus requirement for dedicated office space
 - Remote, Hybrid, 4-10, and 9/80 schedule options since Fall 2022

A scenic mountain valley with a sun flare and lens flare effects. The sun is low in the sky, creating a warm, golden glow over the forested mountains. The text "CU Boulder" is centered in the middle of the image.

CU Boulder



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CU Boulder: Classroom and Lab Utilization

	Type	Number	Average Seats	Total Sections	Total Credit Hours	Average Scheduled Hrs/Wk	Percent Occupancy
Fall 2021	Classrooms	326	55	3,374	226,152	26.4	62%
	Laboratories	145	37	961	17,175	17.7	57%
	Total	471	50	4,335	243,327	23.7	61%
	Other	65	44	291	7,409	9.8	51%
Fall 2023	Classrooms	319	54	3,953	346,728	30.7	66%
	Laboratories	140	40	1,037	21,567	20.6	57%
	Total	459	50	4,990	368,295	27.6	64%
	Other	59	44	278	15,075	12.4	48%
Change	Classrooms	(7)	(1)	579	120,576	4.3	4%
	Laboratories	(5)	2	76	4,391	2.9	-
	Total	(12)	-	655	124,968	3.9	3%
	Other	(6)	-	(13)	7,666	2.6	(3%)

Remote instruction is not included in these totals. The number of class sections and credit hours taught remotely decreased significantly between Fall 2021 and Fall 2023. This change accounts for some of the increase in on-campus class sections and credit hours reflected in the Fall 2023 totals.

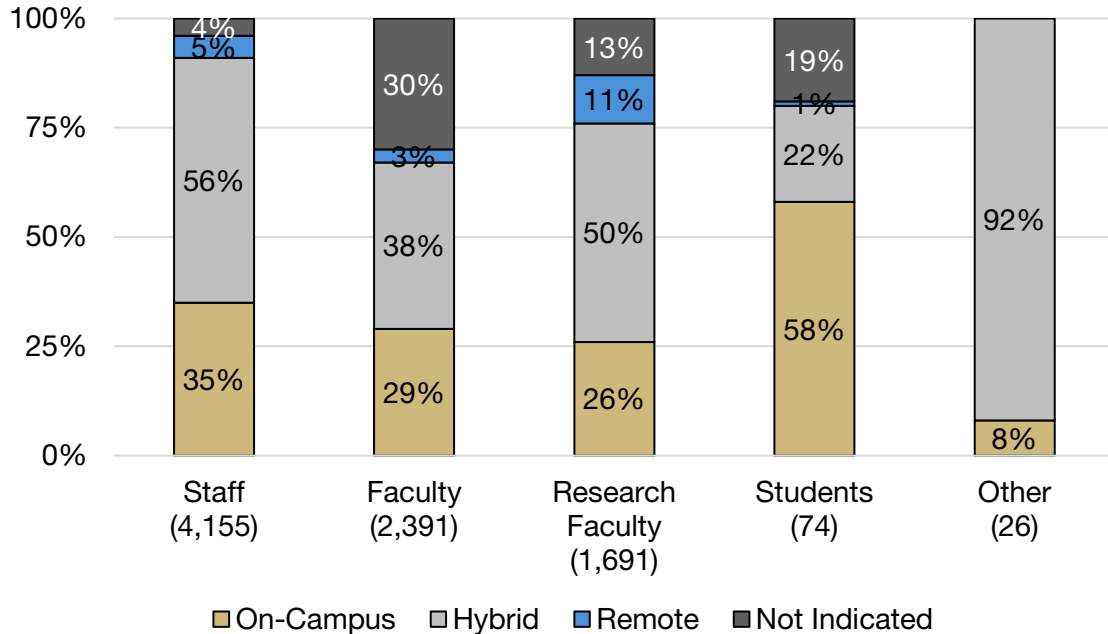
CU Boulder: Classroom and Lab Utilization

Fall 2021 v. 2023

- On-campus classroom occupancy increased in 2023
 - Total student contact hours increased by 43,883 due to enrollment growth and a slight increase in the average number of credit hours taken per student
 - Remote class sections decreased significantly from 956 to 243
 - Total number of classroom and class laboratories reduced by 12 due to building renovations
- Between Fall 2021 and Fall 2023:
 - Total credit hours increased significantly for both classrooms (+120,576) and laboratories (+4,391)
 - Average scheduled hours per week increased for both classrooms (+4.3) and laboratories (+2.9)
 - Average seat utilization increased from 61% to 64%

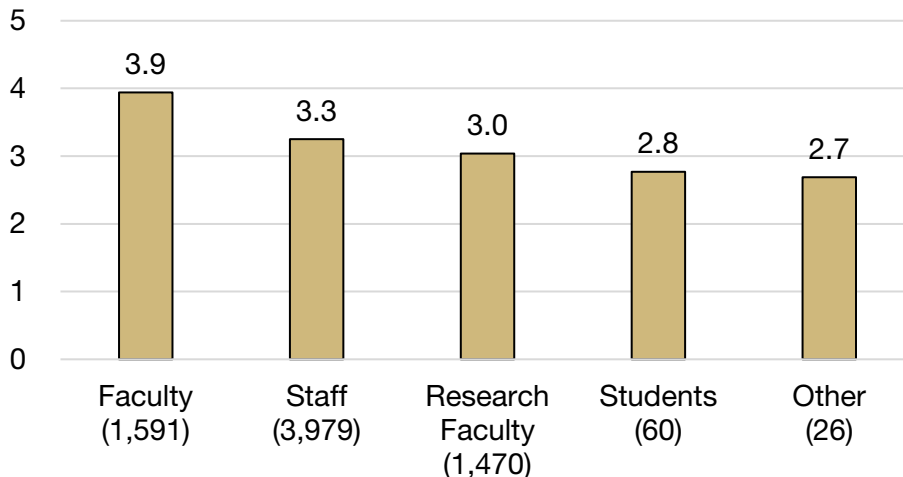
CU Boulder: Space Planning and Hybrid Work Employee Modality

How CU Boulder employees and students work (from 2021 HR survey).



CU Boulder: Space Planning and Hybrid Work Time on Campus

Average expected days on campus per week by employee type (from HR survey).



2024 Goals

- Review and update space allocation guidelines to incorporate employee modality options
- Deploy pilot program that measures space utilization with occupancy sensors and provides dashboards for a variety of spaces

CU Anschutz



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CU Anschutz: Classroom and Lab Utilization

	Type	Number	Average Seats	Total Class Bookings	Total Scheduled Class Hours	Average Scheduled Hrs/Wk	Percent Occupancy*
Fall 2021	Classrooms	51	60	963	17,729	36.3	73%
	Laboratories	44	12	326	4,179	28.0	56%
	Total	95	20	1,289	21,908	34.5	71%
	Other	105	10	559	7,499	17.0	40%
Fall 2023	Classrooms	52	60	917	14,878	37.0	75%
	Laboratories	68	5	366	4,921	23.8	49%
	Total	120	18	1,283	19,799	32.0	64%
	Other	139	10	581	4,516	21.0	51%
Change	Classrooms	1	-	(46)	(2,851)	0.7	2%
	Laboratories	24	(7)	40	742	(4.2)	-7%
	Total	25	(2)	(6)	(2,109)	(2.5)	-7%
	Other	34	-	22	(2,983)	4.0	11%

*Percent occupancy is reported as percent utilized, which compares hours of utilization to overall weekday 8-5 availability.

CU Anschutz: Classroom and Lab Utilization

Fall 2021 v. 2023

- Fall 2023 class hours represent a return to more typical scheduling without social distancing
- Scheduled hours per week remained relatively flat for classrooms (+0.7) and decreased for laboratories (-4.2)
- Total class bookings (sections) decreased slightly for classrooms (-46) and increased for laboratories (+40)
- Laboratory utilization percentage dropped due to an increase in number of spaces, although overall class hours increased
 - For comparability, Fall 2021 laboratory numbers have been revised to removed the gross anatomy labs

CU Anschutz: Space Planning

No changes to room scheduling policy since 2020

- Workspace Guidelines include increased efficiency metrics as well as hybrid work accommodations
- Shared work environments have minimized new construction, reduced capital development costs and operating expenses, and maximized occupancies
 - Initial Clinical Faculty Hub opened in 2019
 - Additional Hubs for clinical faculty and dry research continue to be added to campus inventory
 - Central Service Administrative Hubs will be completed in February 2024

CU Anschutz Workplace Space Guidelines

May 14, 2023



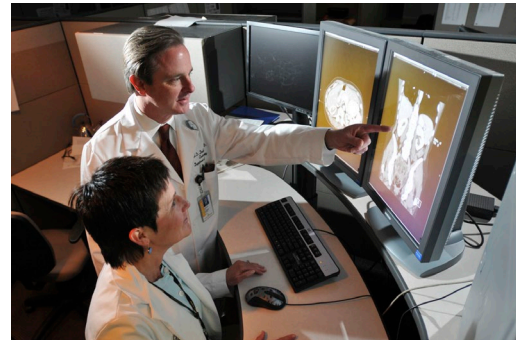
Workplace Space Guidelines - University of Colorado | Anschutz Medical Campus



CU Anschutz: Hybrid Work

Hybrid Work schedules determined through decentralized process with leadership of each school, college or administrative unit. Leadership determines how hybrid work best accommodates customer needs.

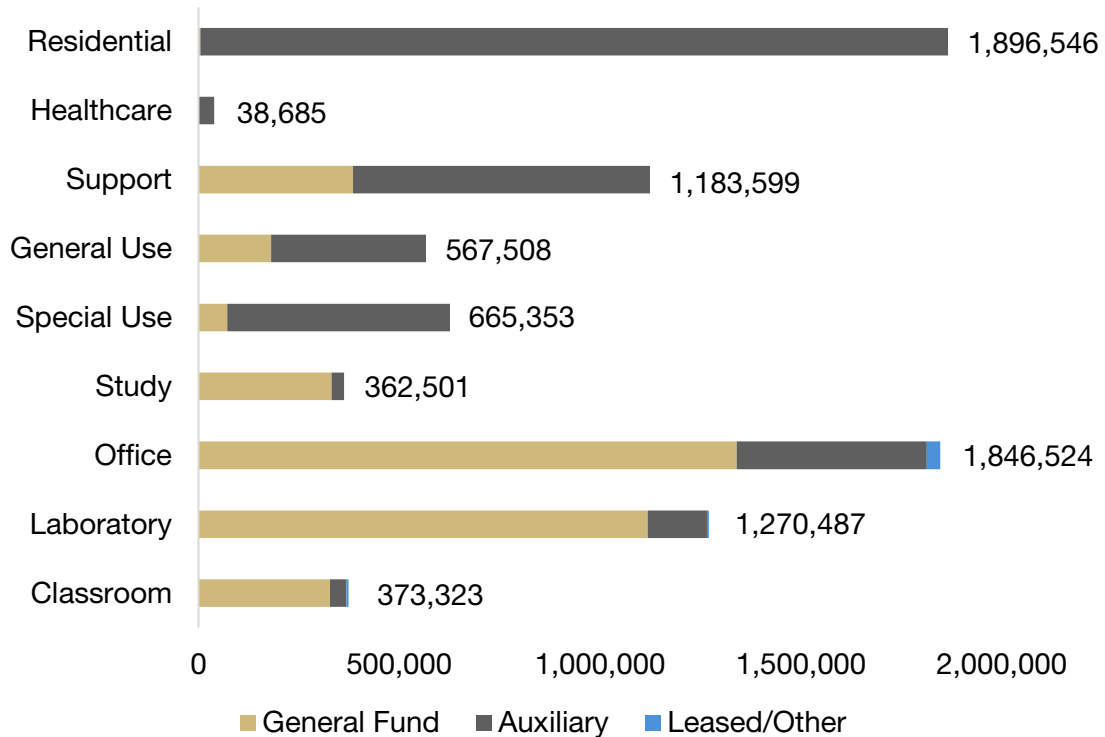
- Campus is fully operational. No gaps in function or efficiency compared to pre-COVID
- Mid-week campus occupancy 75% of pre-Covid occupancy (based on parking counts)
- Total staff and faculty population has increased by 24% since 2019



Appendix

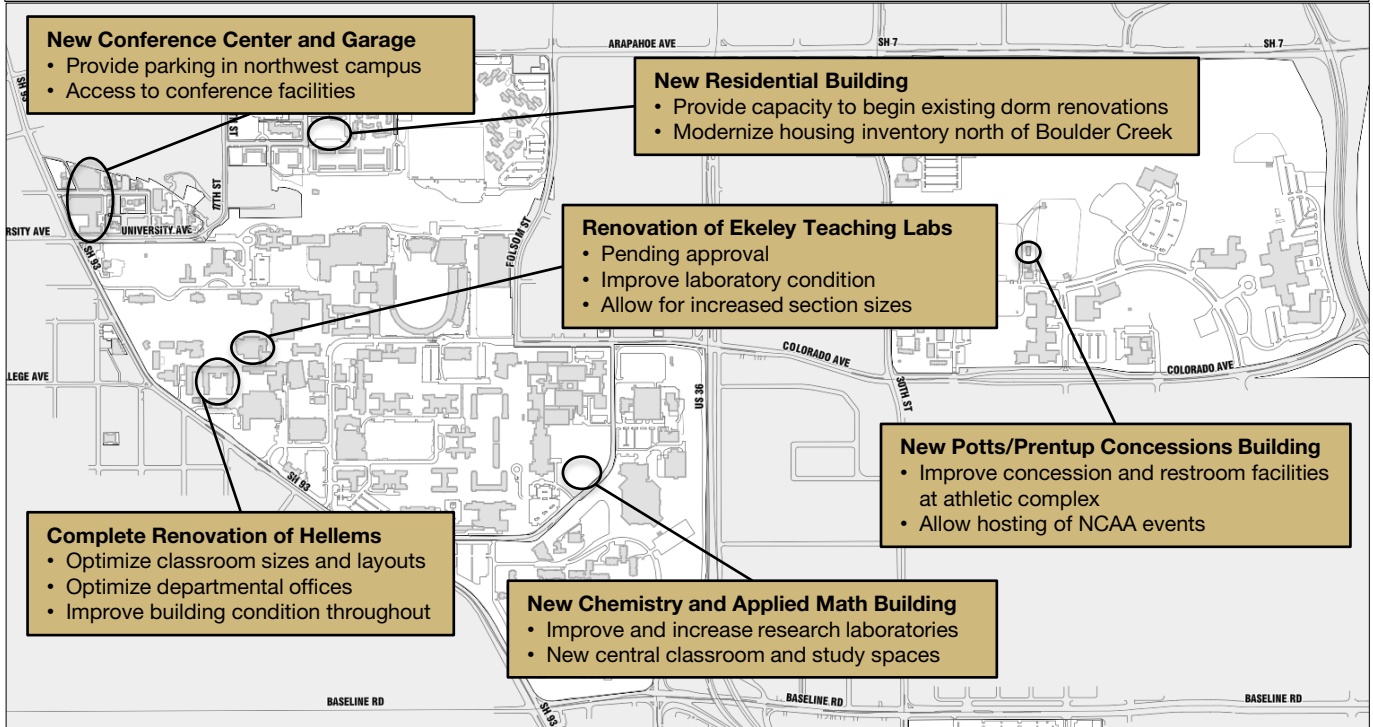
CU Boulder: Campus Building Inventory

Assignable Space Type Distribution



CU Boulder: Campus Building Inventory Renovation and New Building Projects for 2024

Campus Map



CU Denver: Campus Building Inventory

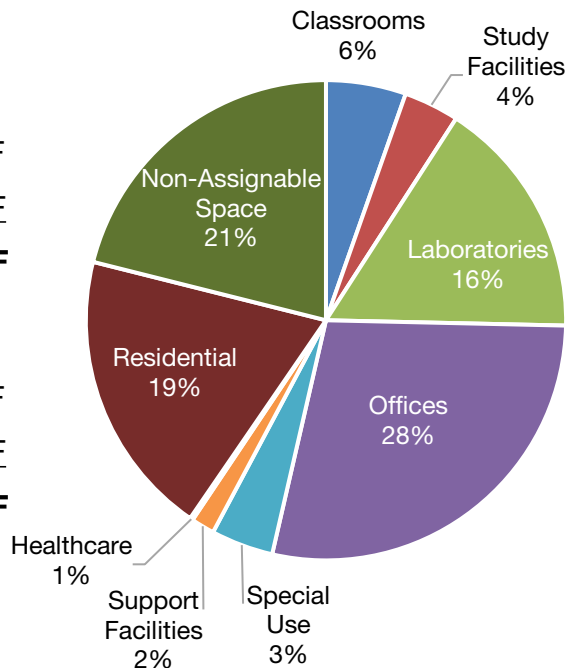
Building Count and Gross Square Feet

Space by Ownership*

CU Denver-Owned (7):	1,241,150 GSF
+ AHEC Shared Buildings (14):	<u>784,690 GSF</u>
Total (21) =	2,025,840 GSF

Space by Funding

General Fund (18):	1,514,387 GSF
Auxiliary Buildings (3):	<u>511,453 GSF</u>
Total (21) =	2,025,840 GSF

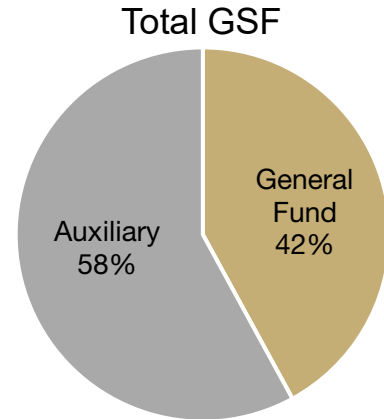


**No new buildings or renovations since previous utilization reporting period.*

UCCS: Campus Building Inventory

Building Count and Gross Square Feet

- 66 buildings
 - 35 general fund, 27 auxiliary, 4 leased
- No change in GSF over 2021 reporting period
 - Renovation at Cybersecurity Building unoccupied warehouse space to academic space
- Anschutz Engineering Center opened spring 2024
 - Add ~22,000 SF of academic and research space

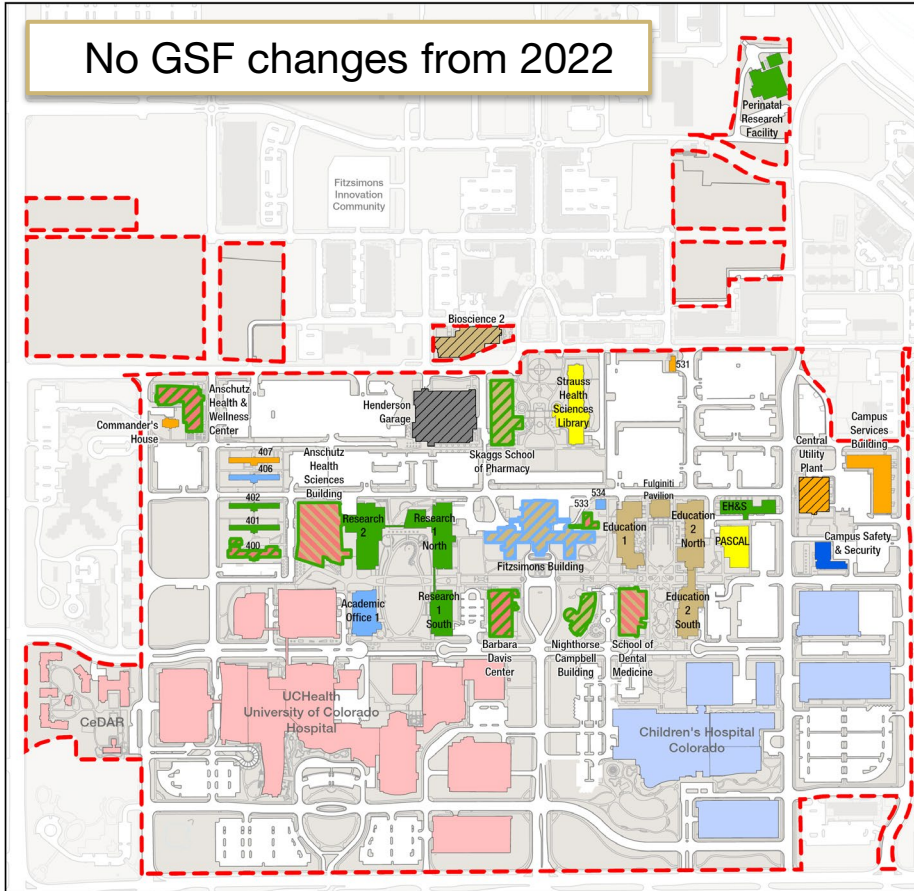


	2021	2023
General Fund	1,308,312	
Auxiliary*	1,800,628	
Total GSF	3,108,940	

**Includes unconditioned parking garage space.*

CU Anschutz: Campus Building Inventory

No GSF changes from 2022



	2022 2023
General Fund (32)*	3,560,302
Auxiliary (3)	688,978
Total GSF	4,249,280

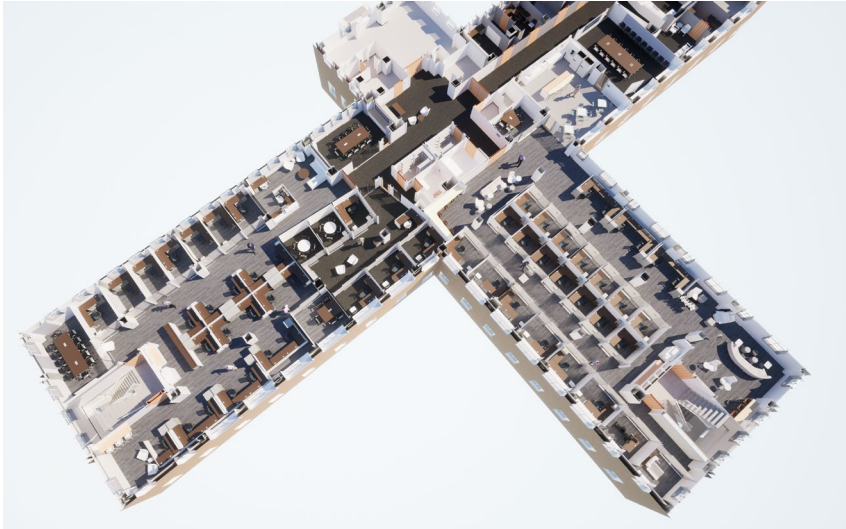
*General Fund facilities constructed through combination of state, university, grant, or philanthropic funding sources

- Anschutz Medical Campus
- Research (9) 1,203,108 GSF
- Academic (5) 521,425 GSF
- Research/Clinical/Academic (2) 511,539 GSF
- Academic/Administrative (1) 479,660 GSF
- Research/Clinical (4) 244,198 GSF
- Administrative (3) 227,758 GSF
- Research/Academic (2) 216,812 GSF
- Facilities (5) 179,851 GSF
- Student Support (2) 141,911 GSF
- Public Safety (1) 26,889 GSF
- Parking Structure (1) 495,499 GSF
- Auxiliary Funded Building (3)
- UCHealth
- Children's Hospital Colorado
- Other Building



CU Anschutz: Campus Building Inventory

Future Project: Fitzsimons CSA Space (Opening February 2024)



- 27,800 SF renovation
- Three floors of historic Fitzsimons Administration Building

CU Anschutz continues to emphasize renovation over new construction and to explore shared officing workspace models; optimizing existing resources and reducing operating costs and energy use intensity throughout campus



CU Boulder: Master Planning

Master Plan Space Use Recommendation and Action

Campus Master Plan (2021) Recommends distribution of space types on East Campus and Williams Village to increase off-peak usage

Action – More academic activity moved to Williams Village

Specialized Laboratory Infrastructure Study (2024 Draft) Recommends de-intensification strategy to repurpose existing laboratory buildings determined to be ill-suited for upgrade to less demanding use

Action – New chemistry building provides opportunity to renovate labs in Cristol Chemistry Building for other use

Energy Master Plan (2021) Recommends improved space utilization to avoid building new where possible and to group energy intensive uses in same building or area of campus

Action – Expansion of growing LASP group accommodated through rental space and hybrid work arrangements

Housing Master Plan (2020) Recommends modernizing housing portfolio by building new facilities and using additional capacity to begin cascading schedule of renovation of existing facilities

Action – New dorm north of Boulder Creek in design and planning for existing dorm renovation in progress

Transportation Master Plan (2020) Recommends consideration of flexible schedules, to incent users to be on campus fewer days and to practice off-peak commutes

Action – Space guideline updates will include multiple employee work modalities

CU Denver: Master Planning

2017 Master Plan

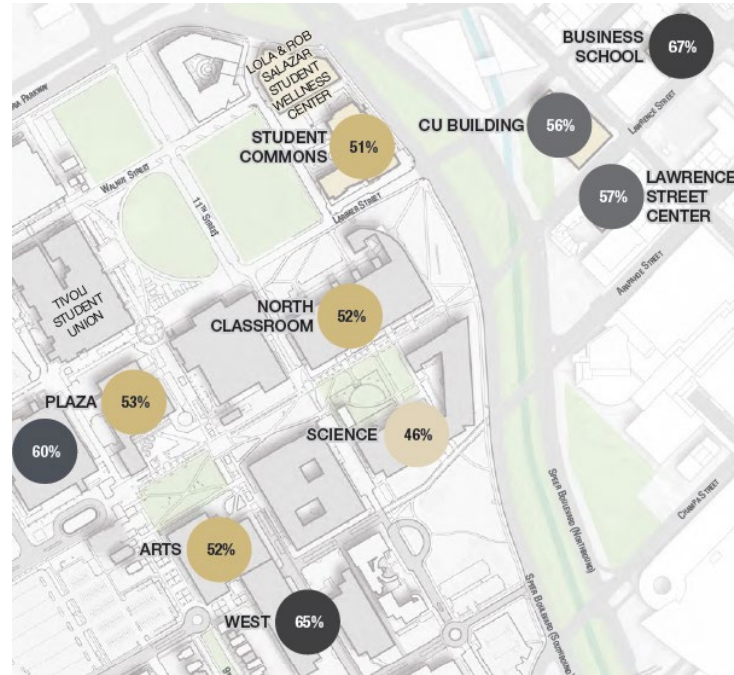
Areas of Need*

- Open Laboratory - 40,000 ASF deficit
- Teaching Laboratory - 48,000 ASF deficit
- Classroom - 46,000 ASF deficit
- Office - 30,000 ASF deficit

Recommendations

- *Complete*: Implement space management system
- *In progress*: Implement space standards
- *TBD*: Study course scheduling modalities

*Based on assumption of enrollment growth to 25,000 students. All categories/areas of need being re-visited based on current enrollment and utilization.



Seat Utilization by Building - 2017. Image from 2017 Master Plan.

CU Denver: Master Planning

Other Planning Initiatives

2023 Facilities Audit findings and rising deferred maintenance backlog will drive space utilization discussions and future decision-making

2024 Auraria Campus Climate Action Plan will be presented for approval in spring/summer of 2024. New recommendations for GHG and EUI reductions will inform project proposals and design and construction standards.



UCCS: Master Planning

Campus engaged in master planning

- Review
 - August 2024: Presentation to Regent's Finance Committee
 - November 2024: Full board approval
- Areas of Focus
 - Learning & Research
 - Student Life
 - Community
 - Mobility
 - Experience + Sustainability
- Includes educational adequacy assessment
- Multiple stakeholders engaged

Energy performance projects approved by Board in September 2023 are underway

UCCS: Master Planning

Space Needs (for Target Enrollment of 11,500)

Space Category	Existing ASF	Guideline ASF	Surplus/(Deficit)	Percent Surplus/(Deficit)
Academic Space				
Classrooms	89,997	95,222	-5,225	-6%
Teaching Laboratories	112,053	53,906	58,148	52%
Open Laboratories	31,031	37,600	-6,569	-21%
Research Laboratories	57,671	84,085	-26,414	-46%
Academic Space Subtotal	290,752	270,813	19,939	7%
Academic Support Space				
Academic Offices	135,001	179,200	-44,199	-33%
Administrative Offices	129,907	179,805	-49,898	-38%
Library & Collaborative Learning Space	93,876	102,292	-8,416	-9%
Assembly & Exhibit	30,675	53,850	-23,175	-76%
Other	28,073	28,200	-127	0%
Academic Support Space Subtotal	417,532	543,347	-125,815	-30%
Other Space				
Athletics	65,505	103,500	-37,995	-58%
Recreation	65,285	114,500	-49,215	-75%
Student Center	87,330	103,500	-16,170	-19%
Physical Plant	26,032	56,783	-30,751	-118%
Other Space Subtotal	244,152	378,283	-34,131	-55%
CAMPUS TOTAL	952,437	1,192,443	-240,007	-25%

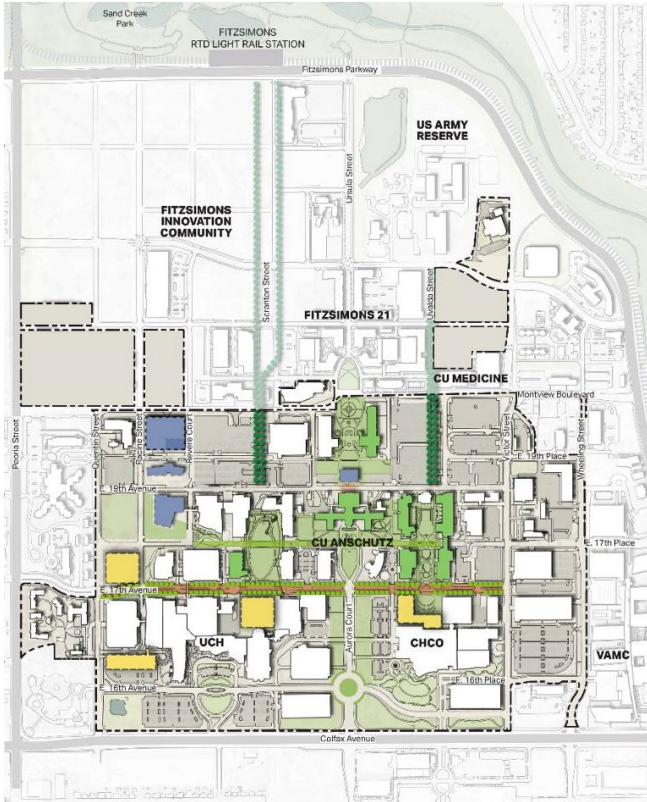
- 1 Rebalance academic space
- 2 Implement hybrid and remote work policies to reduce office space needed
- 3 Increase student life, student support and facilities space

Additional Existing ASF

- Residence Life – 296,939
- Inactive/Conversion Space – 72,295
- Outside Organizations – 51,396

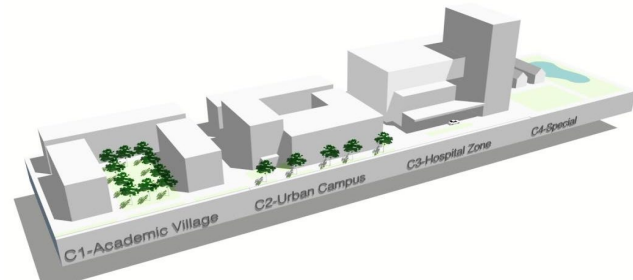
CU Anschutz: Master Plan

Board Approval: June 2023



Additional planning efforts that benefit campus space utilization:

- Campus Workplace Space Guidelines (May 2023)
- School of Medicine - Research Space Guidelines (December 2023)
- Energy Master Plan and Climate Action Plan, anticipated completion late 2024



CU Denver: Other Space Needs Assessment of Need

Instructional Space

Long-term need calculated based on enrollment targets through master planning. Need also assessed periodically using scheduling data.



Office Space

Long-term need calculated based on enrollment targets and space guidelines through master planning.

Lactation Rooms | All Gender Restrooms | Changing Tables

Goal is to have these space types available in every CU Denver owned building on campus. Work underway to define additional metrics.

Collaboration/Study/Recreation

Need based on comparisons with peer institutions and headcount enrollment.

Housing and Dining

Need assessed through housing demand studies. Campus will conduct another study through its next master plan.

UCCS: Other Space Needs

Assessment of Need

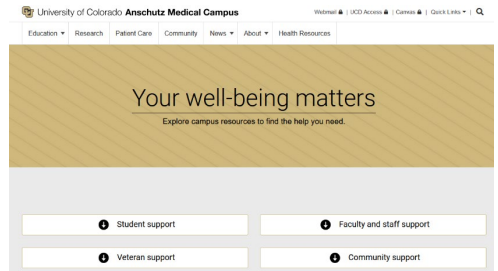
- **Auxiliaries**
 - Dining Services uses location data to optimize dining offerings (when and where)
 - Parking Services uses surveys to determine need for alternative transportation
 - UCCS Retention & Graduation Strategic Plan will make recommendations for student gather space study
- **Offices and Administrative Support Spaces**
 - Centralized system for space requests
 - Collaborative oversight by Vice Chancellor Administration and Finance, Campus Space Advisory Committee and the Chancellor's Cabinet
- **Construction standards provide guidelines for including lactation rooms, gender-neutral restrooms, and changing stations in all new construction and major renovation projects**

CU Anschutz: Other Space Needs

Specialized/Legislated Spaces

Mental Health Services

- Delivered through collaboration of Office of Student Affairs, Central Office of Diversity, Equity, Inclusion and Community Engagement, Department of Psychiatry, and schools and colleges



Lactation Spaces, Gender-Neutral Restrooms, and Changing Stations

- Overseen by Office of Equity, in collaboration with Facilities Management
- Provided in all new construction and major renovations



CU Anschutz: Other Space Needs

Graduate Level Health Sciences

Graduate Level health sciences instruction has unique space needs

- Class size is capped by some accreditation organizations
- Students often transition in and out of large and small spaces during same class period
- Includes off-site clinical rotations

