



## ■ Overview

- ┌ How Facilities and Administrative rates are calculated and negotiated
- ┌ How overhead recovery is distributed and used
- ┌ Things that are not true about overhead recovery
- ┌ Opportunities to enhance F&A rates and recovery



## Absent agreed-on cost sharing, UC policy requires sponsors to pay the full costs, both direct and indirect, of projects they fund

- Direct costs are items that can be easily identified to projects, like salaries, supplies and equipment
- Indirect costs are things that can't be easily identified to a project, such as facilities and administrative infrastructure
- The federal government has replaced the term "indirect costs" with "Facilities and Administrative costs," shortened to "F&A"
  - The terms "indirect costs," "Facilities and Administrative costs," "F&A costs" and "overhead" are used interchangeably
- F&A costs are usually recovered through a rate, expressed as a percentage of direct costs
  - An F&A rate of 50% equals 33% of *total* costs: An institution would charge a sponsor \$1.50 to conduct a dollar's worth of direct research. The \$.50 for F&A is one third of total costs:  $.50/1.50=33\%$



## The overhead rate is not applied to all direct costs

- Berkeley's current overhead rate for on-campus research is 57%.
- The F&A rate is applied to some direct costs, but not others:
  - Major exclusions:
    - Capital items, including equipment, alterations and renovations
    - Student financial aid, including stipends and tuition remission
    - Subward amounts over \$25,000
  - The amount to which overhead rate is applied is called *Modified Total Direct Costs, or MTDC*
- The rate for off-campus projects that pay for facilities related costs directly from the grants is the same as the Administrative component of the F&A rate, which is capped by the government at 26%.



## About 70% of current sponsored agreement expenditures are for direct sponsored research

- Berkeley's total current expenditures were over \$2B in FY15
- Berkeley's sponsored research direct costs were about \$400 million
  - These are direct expenditures, not *awards*. *Awards* include both direct and indirect costs and often include amounts to be spent over multiple years
- Indirect cost recovery from sponsored research was an additional ~\$120 million
- \$120m / \$400m yields an effective indirect cost rate of about 30%
- \$120m indirect cost recovery is 23% of \$520 total (direct plus indirect) sponsored research revenue



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## Educational institutions must follow a special set of federally-defined cost principles

### The rules:

- U.S. Office of Management and Budget Uniform Guidance (now 2 CFR 200), “Uniform Administration Guidance, Cost Principles and Audit Requirements for Federal Awards,” determines costing policy.
- UG provides for standard methods of cost determination, allowability, and allocation, although recent revisions have tended to be detailed and restrictive.
- UG provides for alternative indirect cost allocation methods if they can be shown to be reasonable and equitable.



## All expenditures in an agreed-on base year must be included in the rate calculation

Rate development involves six steps:

1. *Accumulation of expenditures*—all current expenditures, plus building and equipment depreciation & interest paid on long term debt, have to be accounted for; the proposal must tie to published UC Financial Schedules
2. *Exclusions*—(1) unallowable costs, e.g., fundraising; (2) MTDC base adjustments, e.g., financial aid, equipment
3. *Classification*—into direct and indirect cost pools
4. *Allocation*—determine the proportion of indirect costs applicable to each direct function
5. *Rate Calculation*—divide indirect costs allocated to each function by direct costs in that function
6. *Rate Negotiation*



## We classify all our base year expenditures and depreciation into direct and indirect cost pools

### Direct costs (major functions):

- *Instruction and Departmental Research (IDR)*—Includes faculty activity that is not separately budgeted or accounted for
- *Organized Research (OR)*—Research activity that is separately budgeted and accounted for, e.g., grant or contract
- *Other Sponsored Activities (OSA)*, e.g., public service projects
- *Other Institutional Activities (OIA)*, e.g., auxiliaries, service enterprises, unallowable activities





### Indirect (Facilities and Administrative) cost pools:

- Facilities cost components
  - *Building depreciation (BU)*
  - *Equipment depreciation (EQ)*
  - *Operation & Maintenance of Plant (O&M)*—Includes EH&S, police, physical planning, utilities
  - *Library (LIB)*
- Administrative cost components (*capped at 26%*)
  - *General Administration (GA)*—Campus administrative units, e.g., human resources, accounting
  - *Departmental Administration (DA)*—Deans' and departmental offices, 3.6% allowance for administrative effort of faculty
  - *Sponsored Project Administration (SPA)*—Sponsored Projects Office, Contract and Grant Accounting
  - *Student Administration and Services (SAS)*



## Indirect costs must be allocated

Allocate shares of indirect costs to other indirect cost pools and direct costs:

- UG mandates a “stepdown” process, e.g.:
  - The Library is directly allocated its share of campus facility costs based on the space it occupies, and in addition the Library is allocated a share of campus administrative costs based on expenditures, which include a share of campus facilities costs based on the space used by administrative units
- Cost allocation bases vary, e.g.:
  - Space related costs are allocated to buildings and then to units on the basis of assigned square footage, then to function (if necessary) by a space survey or salaries and wages
  - Administrative costs are allocated on basis of modified total costs
  - Library costs are allocated to direct functions on the basis of total user population, or on the basis of a user survey
- In academic and research units, space is used for multiple functions, so we must do a room survey to determine functional usage
  - Room survey data must include PI, all research projects, primary occupants (paid and unpaid) as well as functional use %s
  - ~5,000 rooms in ~60 research departments and units are surveyed at Berkeley
  - The survey process takes more than 6 months and significant staff time

UNIVERSITY OF CALIFORNIA, BERKELEY  
DRAFT PROPOSAL FOR FY 2015

Stepdown Schedule

Cost Group	Total Cost	BldDepr	BldInt	EqpDepr	O&M	GA	DA	SPA	SAS	Library	Total
<b>INDIRECT POOLS</b>											
01 BUILDING DEPREC	139,456,271	-139,456,271									
02 BUILDING INTEREST	77,746,237		-77,746,237								
05 EQUIPMENT DEPR	16,755,126			-16,755,126							
10 OPERATION & MAINT	188,841,106	10,594,943	12,519,976	572,549	-212,528,574						
20 GENERAL ADMIN	142,092,617	3,415,002	2,311,993	1,979,953	7,205,140	-157,004,705					
40 DEPARTMENT ADMIN	128,700,957	3,310,510	1,179,581	289,683	7,838,083	12,140,536	-153,459,350				
60 SPONSORED PROJ ADMIN	33,678,484	296,754	330,996	42,747	842,170	3,176,937		-38,368,088			
70 STUDENT ADMIN & SERV	128,530,551	3,013,451	2,543,087	133,600	2,742,375	12,124,462		275,022	-149,362,548		
80 LIBRARY	58,008,842	8,645,636	3,608,128	117,635	10,925,309	5,472,053		328,724		-87,106,327	
<b>DIRECT BASES</b>											
910 INSTR & DEPT RES	743,139,949	36,933,170	9,492,736	2,949,370	46,127,569	70,101,403	97,909,830	2,025,136	148,672,793	65,495,682	1,222,847,638
920 ORGANIZED RESEARCH	263,684,235	32,066,584	9,185,406	7,939,243	40,031,576	24,873,693	41,453,311	28,120,098	387,538	7,258,793	455,000,477
930 OTHER SPONS ACTIV	32,749,948	637,100	229,250	35,401	1,265,323	3,089,347	2,096,744	3,241,634	98,084	1,104,898	44,547,729
940 OTHER INST ACTIV	285,289,213	39,814,262	35,846,141	2,596,406	94,448,629	22,201,445	9,590,911	-64,583	204,132	12,040,045	501,966,601
921 OR-SPACE SCIENCES	40,546,724	728,845	498,947	98,549	1,102,281	3,824,828	2,408,554	4,442,057		1,206,909	54,857,694
<b>TOTAL</b>	<b>2,279,220,260</b>	<b>-14</b>	<b>4</b>	<b>10</b>	<b>-119</b>	<b>-1</b>			<b>-1</b>		<b>2,279,220,139</b>



Then we divide the amounts allocated to a specific direct function by direct amounts to arrive at a rate component

### Calculation of one rate component:

Total Departmental Administration costs with stepdowns:

\$153.5m

Dept Admin costs allocated to Organized Research:

\$41.5m

Organized Research base:

\$263.7m

Calculated rate component:

$$\boxed{\$41.5m} / \boxed{\$263.7m} = \boxed{15.7\%}$$

- On- and off- campus rates are calculated for Sponsored Research, Instruction and Other Sponsored Activities
- Space Sciences Laboratory has a special rate because NASA provided original building and equipment and its administrative costs are lower



# Calculated cost rates and negotiated final rates

## Organized Research F&A rate components

	<u>FY05 Calculated</u>	<u>Final Rate</u>	<u>FY10 Calculated</u>	<u>Final Rate</u>	DRAFT <u>FY2015 Calculated</u>
<b><u>Facilities</u></b>					
Building depreciation	7.8	6.0	9.2	9.0	13.56
Building interest	3.1	3.7	4.6	5.1	3.88
Equipment depreciation	4.4	3.5	2.7	2.0	3.36
Operation & maintenance (incl 1.3% utility cost adj)	15.2	12.5	16.6	12.1	18.23
Libraries	2.4	1.8	3.3	2.8	3.1
<b>Facilities Total</b>	<b>32.8</b>	<b>27.5</b>	<b>36.3</b>	<b>31.0</b>	<b>42.1</b>
<b><u>Administrative</u></b>					
General administration (e.g., accounting, HR)	7.5	6.1	6.5	6.1	9.43
Departmental administration (deans and departmental offices, A-21 faculty admin allowance)	19.1	17.0	17.5	17	15.72
Sponsored projects admin (SPO, EFA, IRBs)	2.0	1.7	3.7	2.7	10.99
<b>Student services</b>	<b>2.0</b>	<b>1.2</b>	<b>0.3</b>	<b>0.2</b>	<b>0.2</b>
<b>Administrative total</b>	<b>30.6</b>	<b>26.0</b>	<b>27.8</b>	<b>26.0</b>	<b>36.3</b>
<b>Total</b>	<b>63.4</b>	<b>53.5</b>	<b>64.1</b>	<b>57.0</b>	<b>78.4</b>
26% adjustment	-4.6		-1.8		-10.3
<b>Capped rate</b>	<b>58.8</b>	<b>53.5</b>	<b>62.3</b>	<b>57.0</b>	<b>68.1</b>



## All educational institutions are assigned to either DHHS or ONR for rate negotiations

### Cognizant agency:

- Cognizant agency means the federal agency responsible for negotiating and approving F&A rates for an entity on behalf of all federal agencies
- Cognizance of colleges and universities is assigned to either the Department of Health and Human Services (DHHS) or the Department of Defense Office of Naval Research (ONR)
- ~30 institutions with historically high DOD funding are under ONR, including MIT, Stanford, CalTech, University of Illinois Urbana Champaign
- Most (>300) educational institutions, including all UC campuses, are under DHHS cognizance
- Berkeley submits proposals to and negotiates rates with the DHHS Division of Cost Allocation Services (DHHS CAS) Western Regional Office in San Francisco
- We use the rates we negotiate with DHHS for all sponsors, including non-federal



## The final step is to negotiate rates

- *The ONR process varies by institution.* MIT (FY16, 56.0%) submits annually, approximating “real costs in real time;” Stanford (FY16, 58.0%) submits every 2 years:
  - An institution submits its F&A proposal 5-6 months after the end of its fiscal year
  - DOD’s Defense Contract Audit Agency (DCAA) reviews the proposal for ~5 months
  - ONR reviews the proposal and the DCAA audit report and then negotiates final rates to be used for the following year, focusing on calculation methods more than bottom line rates. Often the final rate is very close to the proposed rate.
  - In some cases, if the new final rate turns out to be higher or lower than the rate that had been used during the base calculation year, a true-up or “carryforward” adjustment is applied to subsequent years’ rates
- *The DHHS process:*
  - Rate proposals are submitted every 4 or 5 years
  - Negotiated rates are not normally revisited until the next rate proposal. There is no true-up carryforward adjustment.
  - Significant rate increases are strongly resisted. CAS tries to lower the rate to a level at which it believes all inappropriate costs are eliminated and to achieve a lower price to the government for research.
  - There are differences between regions and between public and private universities. Harvard’s main campus rate in FY16 was 69%; the rate for the University of Washington, Seattle also in FY16 was 54.5% while Berkeley’s rate for FY16 is 57.0%.



## DHHS negotiators use many strategies to reduce university overhead rates

### Ways DHHS staff found to lower Berkeley's final rate:

- Increased our OR base: UC's definition of "Research" in its financial statements includes many costs, e.g., the administrative costs of ORUs, that should not be included in the federal cost objective, "Organized Research," defined as research activity that is separately budgeted and accounted for.
  - The rate proposal excludes these costs from the Organized Research base
  - The government adds many of these costs back, which, by increasing the base denominator, lowers the calculated rate
- Reduced lab space used for OR to account for thesis work by GSRs (contrary to UG guidance)
- Rejected environmental remediation costs at RFS, saying they should have been capitalized (which UC capitalization policy doesn't allow)
- Reduced depreciation amounts for buildings, claiming that UC's useful lives were too short (although UG says our proposal must use the same methods used in the institution's financial statements)
- Recalculated library usage statistics to allocate costs to all Extension students and other users, lowering allocation to research





- Cost studies
  - Space: In summer and fall 2015, departments with high volumes of sponsored research completed a room-by-room space usage survey.
  - Library: A library user survey is under way: random 2-hour intervals throughout the year at Doe and branch libraries, plus on-line access, to determine use by function.
- SSL has had a special lower F&A rate dating from when NASA funded SSL's original building and equipment in the 1960's. DHHS CAS has resisted previous campus requests to eliminate the SSL rate without approval from NASA.
- Proposal submission to the feds by June 30, 2016.
- Over the FY16-17, feds will ask a series of detailed questions regarding the proposal, then in spring 2017 spend 2-3 days on campus testing the space survey results finally sitting down to negotiate rates in a little over one year from now.



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## How Berkeley uses its overhead funds

- Overhead recovery funds allocated to Berkeley are largely budgeted centrally to preserve the campus's capacity to meet capital program, faculty start-up, research infrastructure and other critical needs.
  - Some are permanently budgeted to research support units
  - Some are used for capital improvements and debt service
- Departments will see F&A return in the form of 19933, 69750, 69749 and some 19900 funds.
- Every point increase in the F&A rate yields about \$2m in new, unrestricted revenue to the campus.



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## “Overhead recovery funds must be used for the purposes for which they were originally justified”

We can spend overhead reimbursement any way we want:

- The overhead rate is based on audited institutional direct and indirect costs in the calculation base year.
  - Overhead recovery funds are reimbursement to the institution for costs already incurred and reviewed.
  - Using travel reimbursement as an example, expenses claimed must be justified and may be audited, but the amount reimbursed belongs to the traveler. Similarly, overhead costs paid by the campus are reimbursed to, and belong to, the campus.
- Overhead reimbursement funds are *not* federal funds; they may be spent for any institutional purpose, including costs that might not be allowable using federal funds.



## “The overhead from research generates net revenue for the campus”

Research generates *costs* as well as overhead return:

- Berkeley’s calculated real overhead rate approaches 70%.
- Indirect costs are not fully recovered by the University because the overhead rate is reduced by:
  - Federal rules that require under-allocation of costs to research
  - Federal rate negotiators who use subjective judgment to lower rates
  - Rate caps, e.g., 26% cap on administrative components (Berkeley’s calculated administrative rate is currently well over 36%) and faculty time (limited to 3.6%)
  - Rate waivers to certain sponsors



“If we reduce support service levels to PIs we will violate our overhead contract with the federal government”

The University’s rate agreement with the government is about costs, not services:

- Our federal rate agreement, available at <http://www.spo.berkeley.edu/Policy/fa2007.pdf> does not specify, explicitly or implicitly, levels of service to be provided to research projects
- Our rates are a snapshot of costs in a base year. We negotiate rates that apply for a predetermined length of time and rates don’t change, even if costs or service levels change.
  - If building maintenance or janitorial service to a research area decreases (or ends), it’s not an indirect cost issue, and doesn’t violate our rate agreement . However, our ability to pass long these costs directly to sponsored agreements is limited.
- If an institution receives federal grant or contract funds, it is obligated to do the scope of work proposed, adhere to federal cost principles and to maintain adequate financial management and controls, regardless of the level of overhead received, or even if no overhead is received.



“Most other research institutions give PIs and/or their departments a share of the overhead recovery they generate”

Some institutions allocate a share of overhead recovery to the PI and/or the PI's department, but:

- Private research universities that distribute overhead usually have a distributed budget model (“Every Tub On its Own Bottom”) for all revenues and expenses, not just overhead recovery
- Top research universities in Berkeley's league don't give a cut of overhead recovery as incentive payments to faculty
- Distributing overhead recovery would also mean distributing responsibility for covering costs that are now met by the central campus

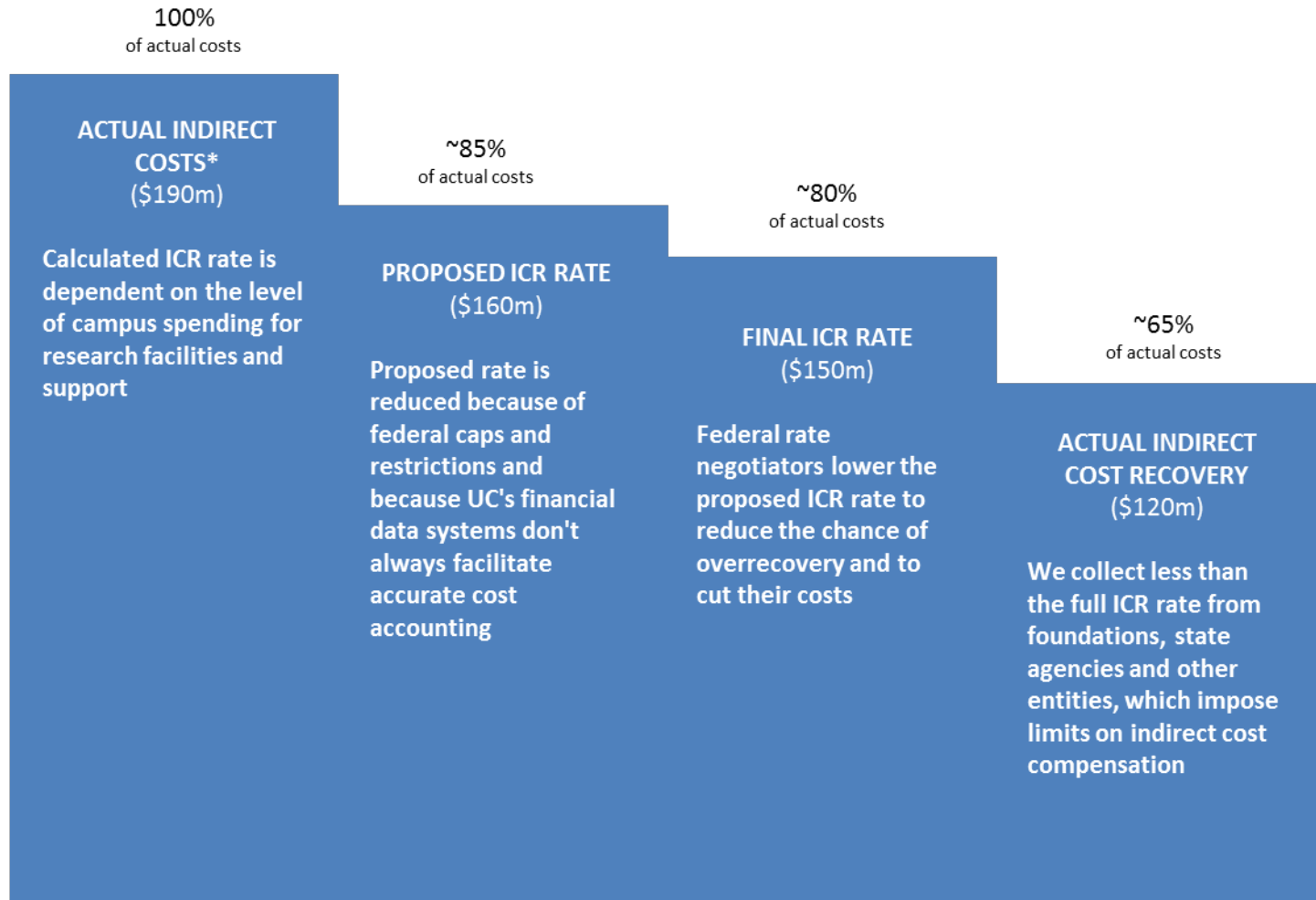




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# Indirect cost recovery is a partial *reimbursement* of expenses in support of research



\*Source: Costs/estimates from UCB's last ICR rate proposal in 2010.



## Options to optimize an F&A rate

- A successful F&A rate is not always the highest rate—its the one that shrinks the gap between what we spend and what we recover.
  - Thus, a 52% rate can be a very successful rate if true costs are 55%.
  - Keep administrative costs very near the cap
  - Invest in research facilities, then occupy them entirely with full overhead bearing research awards
  - Keep administrative space to a minimum occupying the cheapest space in the most dense form possible
  - Keep faculty offices to one per faculty member regardless of multiple appointments
  - Place sponsored agreements with less than full F&A rate in rental space
  - Preserve campus space for mission critical activities, reduce admin and storage spaces on campus; consider alternative delivery models for collection spaces
  - Place research in most expensive spaces including things like the stadium and the art museum
  - Examine other activities on campus such as UCOP program, LBNL and others
  - Improve quality of data sets: work orders, financial, space, equipment, utilities, library access etc.



## Options to optimize an F&A recovery and other budgetary considerations

- F&A recovery feeds into a larger financial ecosystem
  - Direct charge where allowable
  - Reduce subsidies
    - Recharge units
    - Cost sharing
    - F&A waivers
  - Use other people's money to invest in research facilities (state GO bonds, gifts, P3 etc.)
  - Leverage debt for research facilities because interest is a recoverable indirect cost
  - Research gifts v. research grants
  - Examine F&A on UCOP activities and its return to campus
  - Apply full rates more consistently
    - Examine “total cost” application for non federal awards
  - Examine space allocations and the cost of space
  - Optimize the use of the OSA rate



- Do we wish to favor indirect cost recovery as part of our financial strategy?
- If so,
  - Is our space resource allocated along strategic objectives?
  - Are we placing research in the optimal facilities at the appropriate density?
  - Are there appropriate incentives in place to prioritize F&A in important space and capital investment decision-making?
  - How do we use rental space to aid in our objectives?
  - Are we investing in our physical plant such that there is a ROI for F&A?
  - How can our data be reimagined so that we can understand more fully the cost of research, instruction and other activities?



# Does our space allocation match with our strategic objectives for ICR?

## FY2015 SPACE DATA

ROOM TYPE	ASF	% PRIORITY	
ADMIN OFFICE/SERVICE	1,509,131	14.50%	3
ANIMAL	83,937	0.81%	
CHILD	19,101	0.18%	
CLASS	866,918	8.33%	4
CONF	272,940	2.62%	
EXHIBIT	62,154	0.60%	
FACULTY OFFICE	590,283	5.67%	
FOOD	186,094	1.79%	
IA/REC	378,152	3.63%	
INACTIVE	414,783	3.99%	
LIBRARY	733,538	7.05%	5
MED	38,308	0.37%	
MERCH	304,032	2.92%	
OTHER	323,860	3.11%	
RESEARCH	2,017,665	19.39%	1
RESIDENCE	1,931,627	18.56%	2
STORAGE	674,943	6.49%	6
Total	10,407,466		

## REMOVE RES HALL

ROOM TYPE	ASF	% PRIORITY	
ADMIN OFFICE/SERVICE	1,509,131	17.81%	2
ANIMAL	83,937	0.99%	
CHILD	19,101	0.23%	
CLASS	866,918	10.23%	3
CONF	272,940	3.22%	
EXHIBIT	62,154	0.73%	
FACULTY OFFICE	590,283	6.96%	6
FOOD	186,094	2.20%	
IA/REC	378,152	4.46%	
INACTIVE	414,783	4.89%	
LIBRARY	733,538	8.65%	4
MED	38,308	0.45%	
MERCH	304,032	3.59%	
OTHER	323,860	3.82%	
RESEARCH	2,017,665	23.80%	1
RESIDENCE	-	0.00%	
STORAGE	674,943	7.96%	5
Total	8,475,839		