

UC: State of Research

Presentation to Graduate Fellows

24 January 2018

Items to Discuss

Office of Research

- ★ State of Research – by the numbers
- ★ Research trends
- ★ Current and future initiatives

UC Strategic Directions

- ★ Update on Urban Futures

2016 NSF HERD Rankings

Includes Affiliate Data

	Overall		Public Institutions		Public Institutions, Federal			
52	FY 2015	51	35	FY 2015	34	30	FY 2015	28
	FY 2014	50		FY 2014	33		FY 2014	28
	FY 2013	47		FY 2013	30		FY 2013	28

Other Public Institution Data (82 Public R1 Institutions)

Values in Millions \$

#25 UAB:	FY16-\$537.83	FY15-\$516.23	FY14-\$428.56	FY13-\$440.80
#30 NC State:	FY16-\$489.92	FY15-\$468.29	FY14-\$446.11	FY13-\$417.47
#35 UC:	FY16-\$430.58	FY15-\$436.03	FY14-\$422.87	FY13-\$438.64
#41 UK:	FY16-\$349.66	FY15-\$331.71	FY14-\$328.24	FY13-\$339.76

2016 NSF HERD Rankings

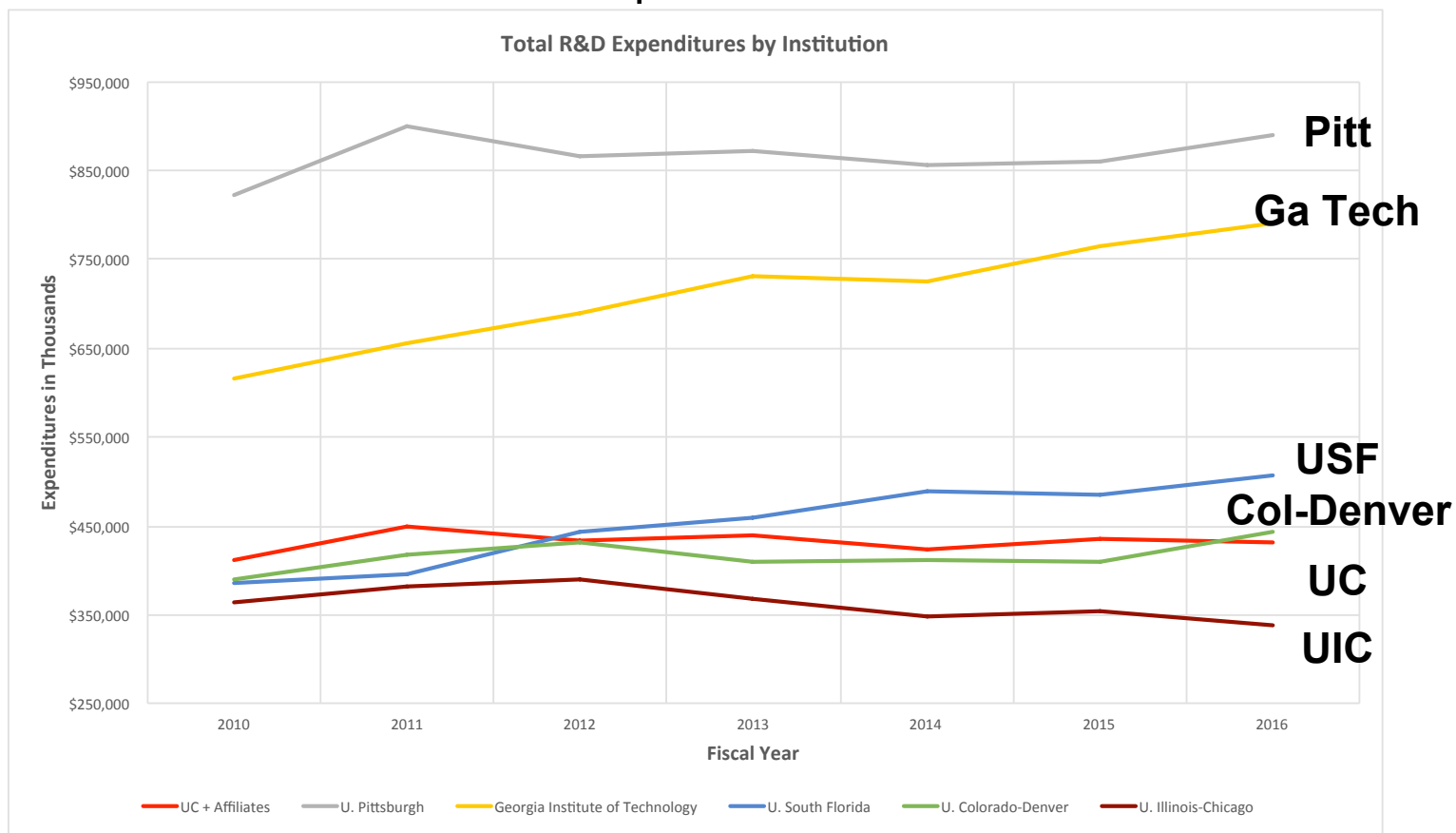
Includes Affiliate Data

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52	FY 2015	51	35	FY 2015	34	30	FY 2015	28
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Data Breakdown (values in Millions \$)

Institution	Federal government	State and local government	Institution funds	Business	Nonprofit organizations	All other sources
U. Cincinnati	\$231.82	\$6.60	\$115.28	\$25.39	\$51.35	\$0.14
(Rank-Public)	#30	#95	#34	#27	#12	#175
UAB	\$348.63	\$5.67	\$106.75	\$50.04	\$26.74	\$0
NC State	\$202.34	\$95.21	\$119.55	\$71.02	\$1.20	\$0.60
UK	\$154.56	\$45.63	\$105.17	\$12.06	\$15.89	\$16.35

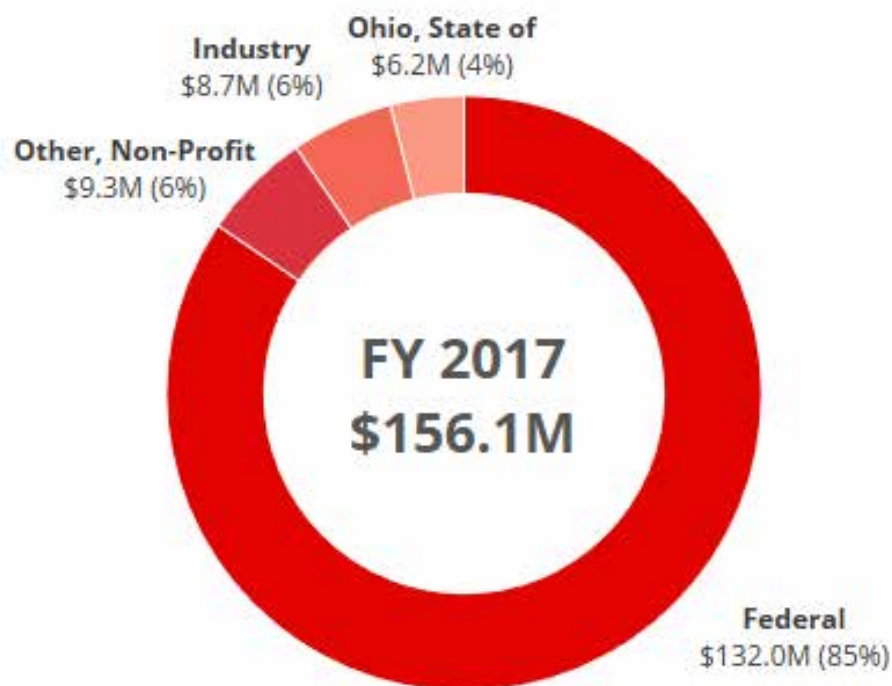
Research Expenditures: Total



FY17 Research Funding

FY 2017 Funding Overview

Excludes Student Aid & Affiliate Data



1485

Proposals Submitted



\$156,143,557
Total Award Funding

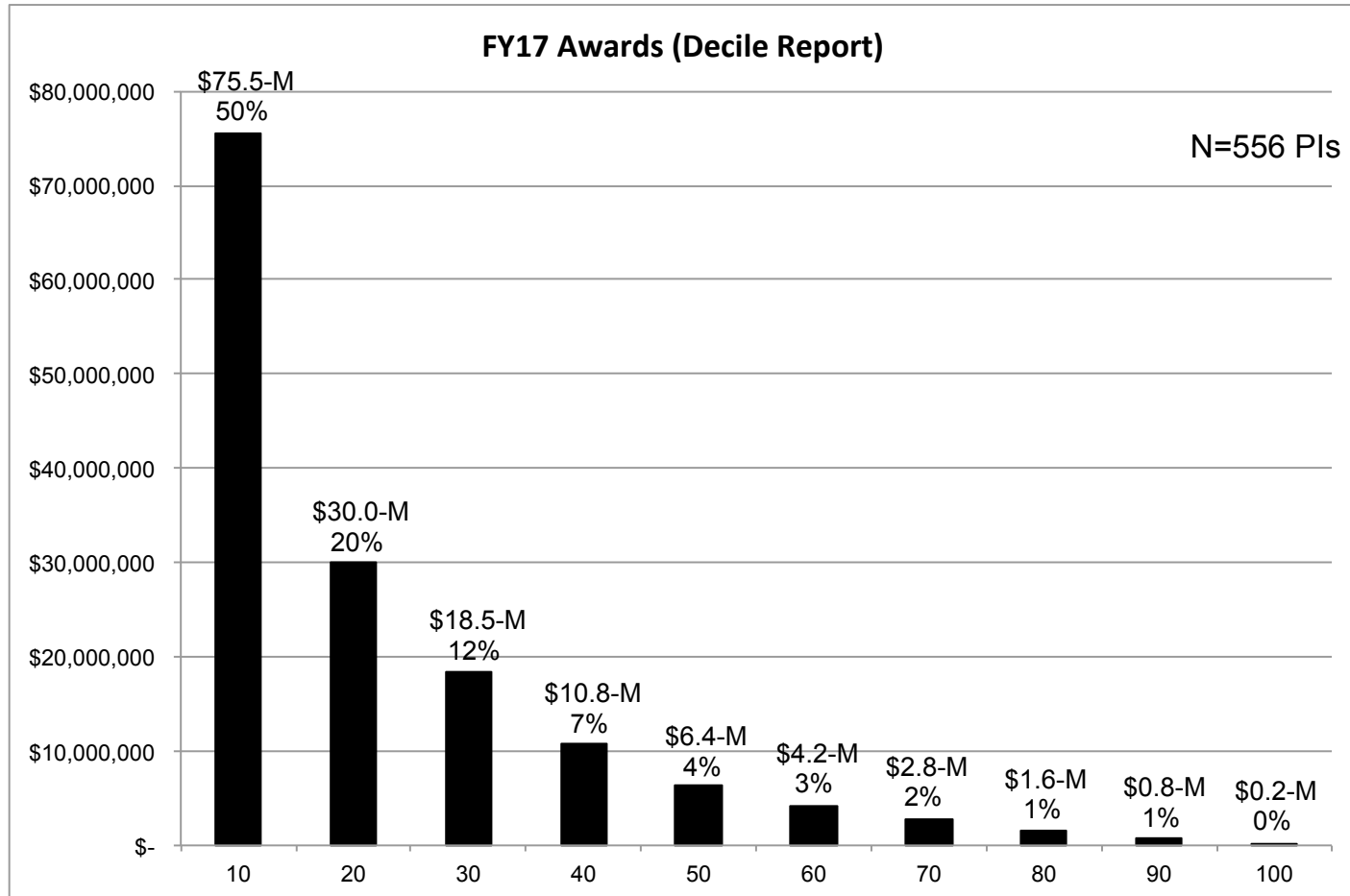


939

Award Count

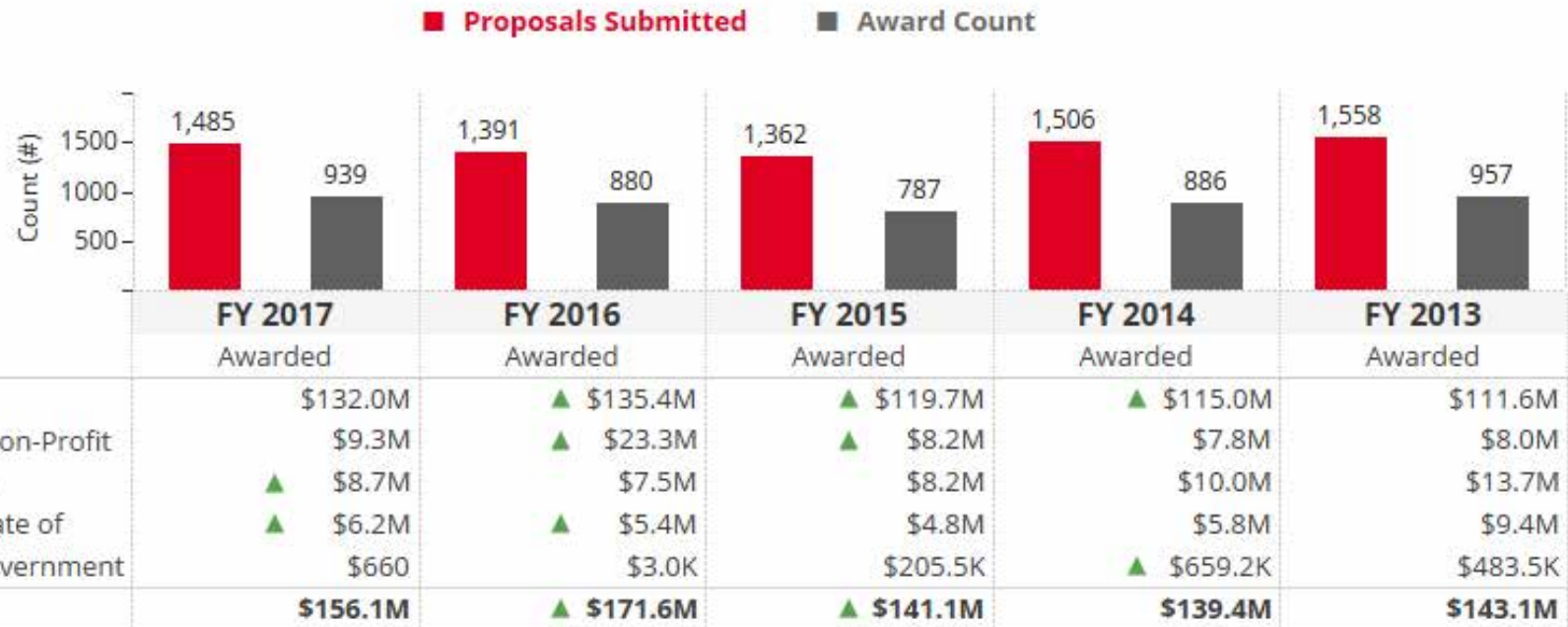
FY17 UC Awards

10% of PI's (<3% of faculty) responsible for 50% of total award dollars



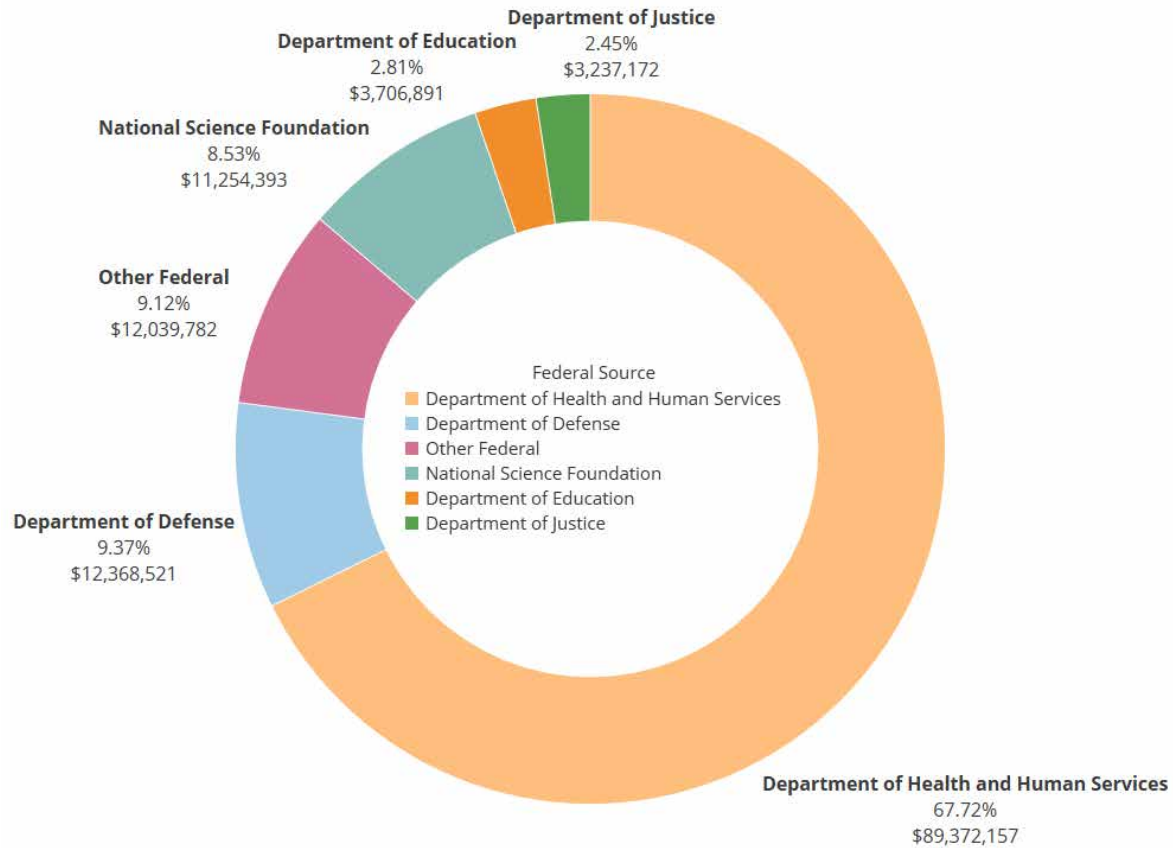
5 Year Funding Comparison

Excludes Student Aid & Affiliate Data



Award Data: Federal Funding Source

Excludes Student Aid



Award Data: Federal Funding Source

	Department of Health and Human Services	Department of Education	National Science Foundation	Department of Defense	Other Federal	Department of Justice
FY 2017	\$89.4M	\$40.6M	\$11.3M	\$12.4M	\$12.0M	\$3.2M
FY 2016	\$90.7M	\$43.8M	\$15.9M	\$16.0M	\$8.0M	\$733.9K
FY 2015	\$83.3M	\$44.4M	\$17.5M	\$7.2M	\$7.0M	\$2.1M

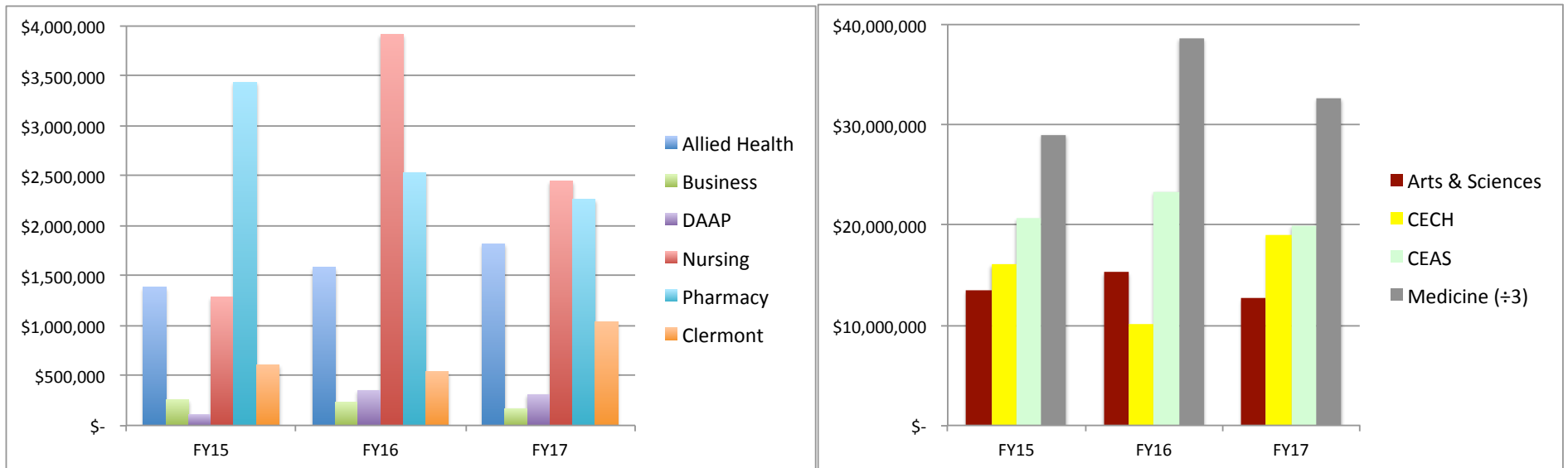
Federal Source	FY 2017			FY 2016			FY 2015	
	# of Awards	Amount	% Change	# of Awards	Amount	% Change	# of Awards	Amount
Department of Health and Human Services	404	\$89,372,157	-1.5%	374	\$90,732,434	8.9%	358	\$83,306,405
Department of Education	24	\$40,640,354	-7.2%	27	\$43,793,354	-1.5%	26	\$44,440,851
National Science Foundation	65	\$11,254,393	-29.0%	80	\$15,853,089	-9.2%	68	\$17,457,902
Department of Defense	70	\$12,368,521	-22.7%	68	\$15,993,455	122.3%	48	\$7,195,600
Other Federal	82	\$12,039,782	50.7%	74	\$7,986,787	13.7%	66	\$7,026,161
Department of Justice	35	\$3,237,172	341.1%	5	\$733,912	-64.5%	7	\$2,068,135
Grand Total	680	\$168,912,379	-3.5%	628	\$175,093,032	8.4%	573	\$161,495,054

Award Data: UC Units

Excludes Student Aid

	FY 2017		FY 2016		FY 2015	
	Amount	% Change	Amount	% Change	Amount	% Change
A&F Administration & Finance	\$3,000					
Academic Affairs	\$1,855,435	39.2%	\$1,332,674	55.2%	\$858,856	
Allied Health Sciences	\$1,821,797	15.0%	\$1,584,078	14.4%	\$1,384,857	
Arts & Sciences	\$11,782,857	-20.3%	\$14,792,992	20.9%	\$12,232,104	
Blue Ash College	\$856					
Clermont College	\$1,036,941	92.8%	\$537,705	-11.3%	\$605,990	
College Conservatory of Music					\$28,124	
Design Architecture Art & Planning	\$309,373	-12.4%	\$353,283	1507.3%	\$21,980	
Education Criminal Justice & Human Services	\$14,761,176	83.2%	\$8,059,590	-31.8%	\$11,809,681	
Engineering & Applied Science	\$18,590,172	-9.7%	\$20,576,777	14.4%	\$17,989,733	
Enrollment Management			\$350,000	468.5%	\$61,564	
Equity & Inclusion	\$39,510					
Graduate School	\$184,000	23.1%	\$149,500	-33.1%	\$223,500	
Hoxworth Blood Center	\$1,211,722	43.4%	\$844,934	-66.9%	\$2,554,354	
International					\$15,000	
Lindner College of Business	\$71,103	-30.6%	\$102,510	101.0%	\$51,009	
Medicine	\$97,400,508	-15.6%	\$115,470,969	32.6%	\$87,063,293	
Nursing	\$2,449,550	-37.4%	\$3,915,621	205.5%	\$1,281,513	
Office for Safety and Reform			\$12,400			
Office of Research	\$2,753,349	292.2%	\$702,070	-30.6%	\$1,012,000	
Office of the President	\$23,706	40.1%	\$16,926	-40.9%	\$28,619	
Pharmacy	\$1,674,812	-21.4%	\$2,130,303	-33.8%	\$3,217,747	
Sr VP Administration & Finance			\$50,000			
Sr VP Provost Bacc & Grad Edu					\$52,059	
University of Cincinnati Libraries	\$5,000	-84.3%	\$31,845			
VP & CIO for Information Technology	\$161,825	2.3%	\$158,164	-48.1%	\$304,845	
VP for Student Affairs	\$6,864	-98.5%	\$457,600	76.8%	\$258,800	
Grand Total	\$156,143,557	-9.0%	\$171,629,941	21.7%	\$141,055,627	

Award Data: UC Units



- CAHS, CECH and Clermont up FY17 over FY16
- CAHS, DAAP, CECH, Medicine, Nursing and Clermont up FY17 over FY15
- College of Medicine accounts for 63% of total external funding

Award Data: Cross-College Collaborations*

Excludes Student Aid

	FY 2017			FY 2016			FY 2015		
	Awards (Lead Unit Only)	Awards (All Collab.)	Amount (All Collab.)	Awards (Lead Unit Only)	Awards (All Collab.)	Amount (All Collab.)	Awards (Lead Unit Only)	Awards (All Collab.)	Amount (All Collab.)
Allied Health Sciences	3	3	\$489,446	1	2	\$190,524			
Arts & Sciences	3	22	\$2,686,519	2	29	\$2,731,882	1	22	\$2,176,917
Clermont College	0	1	\$104,536						
Education Criminal Justice & Human Services	1	1	\$187,115	3	5	\$1,789,229	1	5	\$1,864,666
Engineering & Applied Science	11	17	\$1,864,485	9	15	\$3,011,717	13	19	\$3,639,890
Lindner College of Business	0	3	\$71,103	0	3	\$70,967	0	4	\$51,009
Medicine	14	23	\$7,383,945	19	31	\$7,013,134	15	27	\$9,599,185
Nursing	3	6	\$1,380,392	5	6	\$1,467,596	3	3	\$808,427
Office of Research	5	5	\$480,424	2	2	\$102,075			
Pharmacy	4	6	\$768,496	5	9	\$984,493	5	8	\$984,335
Non-Academic Units	2	3	\$287,413	2	3	\$186,935	2	3	\$380,522
Grand Total	46		\$15,703,874	48		\$17,548,551	40		\$19,504,951

* Cross-college projects involve investigators from 2 or more colleges

FY17 Institutional Support

Office of Research Transfers and F&A Distribution

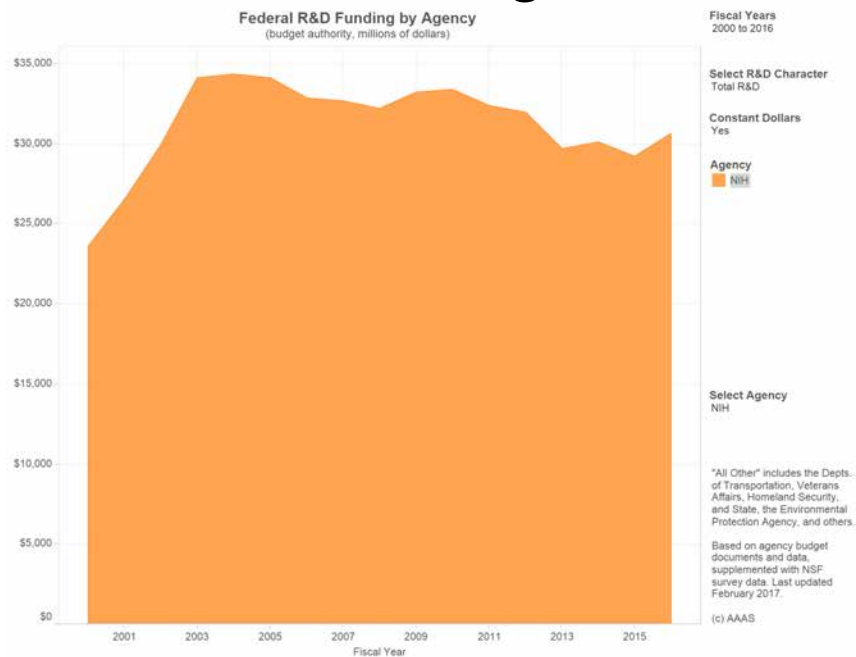
Sum of Amount	Type of Support						
Row Labels	Accelerator	Startup	Cost Share	F&A	Other	Grand Total	
A&S	37,500	1,685,030	129,725	668,886	405,439	2,926,580	
CAHS		81,595		44,175	72,467	198,237	
CCM	20,000			-	16,339	36,339	
CEAS	120,000	1,616,931	130,000	854,954	114,717	2,836,602	
CECH		5,000		333,703	39,695	378,398	
COM	155,000	850,000	70,000	5,243,394	65,500	6,383,894	
CON				53,469		53,469	
COP	37,500	140,000	6,000	142,865		326,365	
DAAP				14,213	20,800	35,013	
Branch Campuses				7,888	21,751	29,639	
Grad School					1,151	1,151	
Honors					1,198	1,198	
University-wide				107,782	178,509	286,291	
Grand Total	370,000	4,378,556	335,725	7,471,329	937,567	13,493,176	

Other support includes: internal grants, events, student support

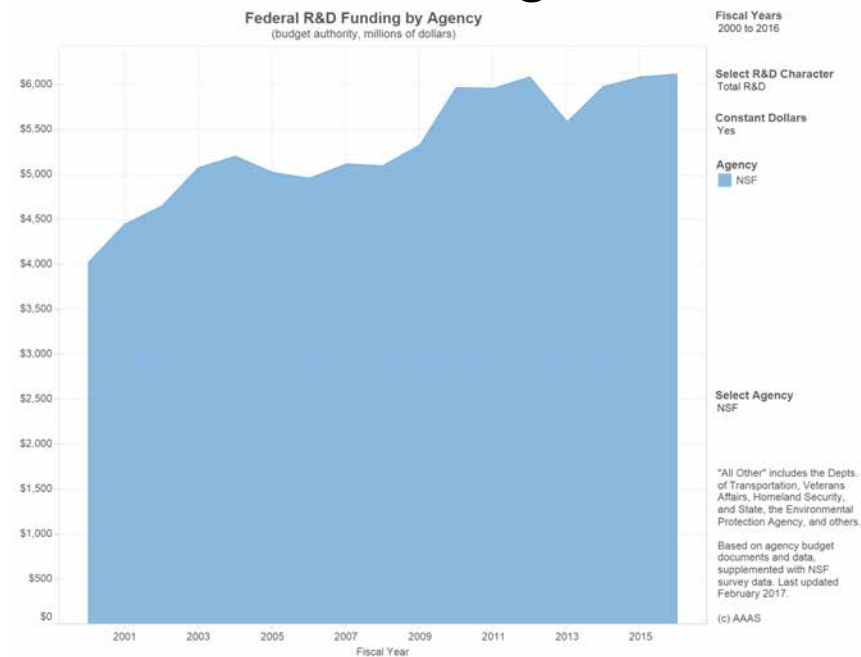
Research Trends

Research Funding Trends

NIH Funding

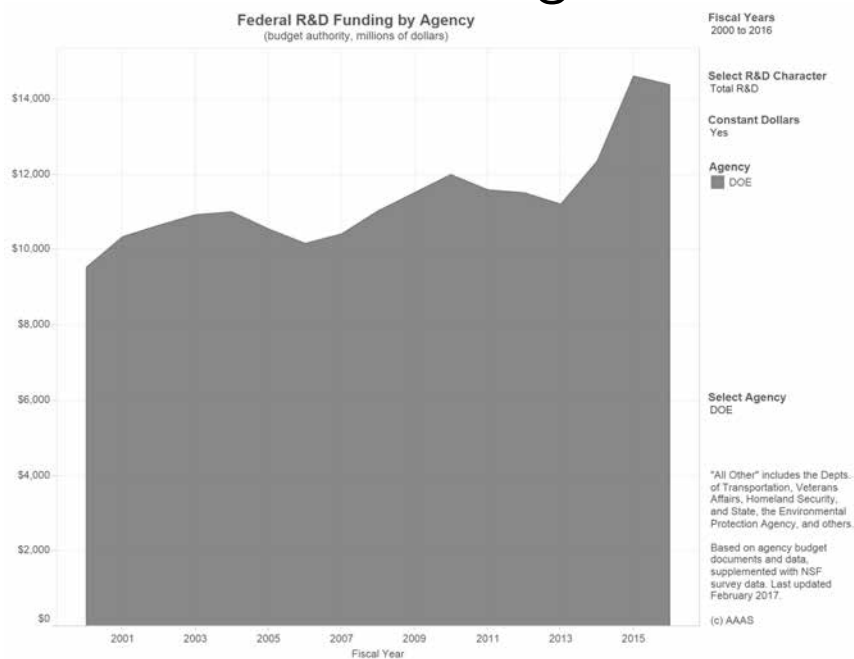


NSF Funding

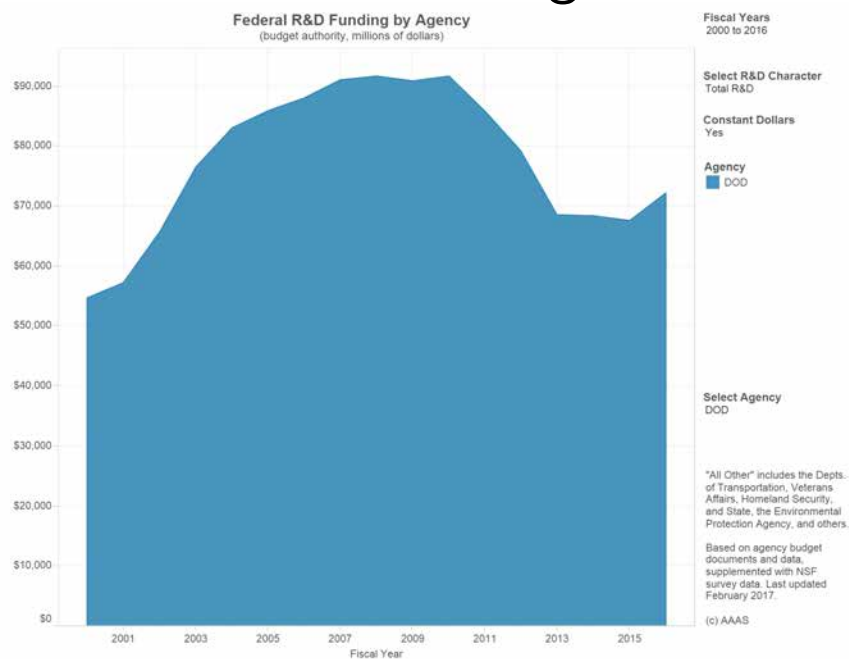


Research Funding Trends

DOE Funding



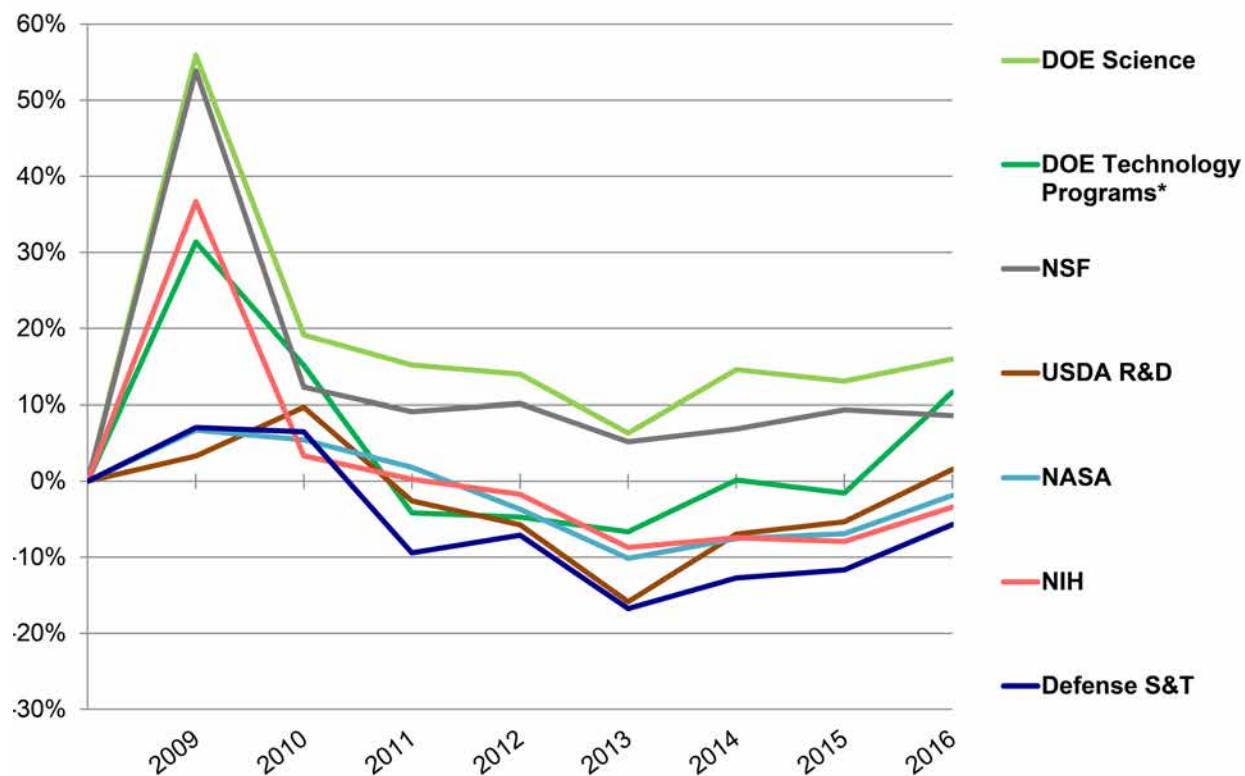
DOD Funding



Research Funding Trends

S&T Agency Budgets in the Obama Years

Percent change from FY 2008 levels, constant dollars

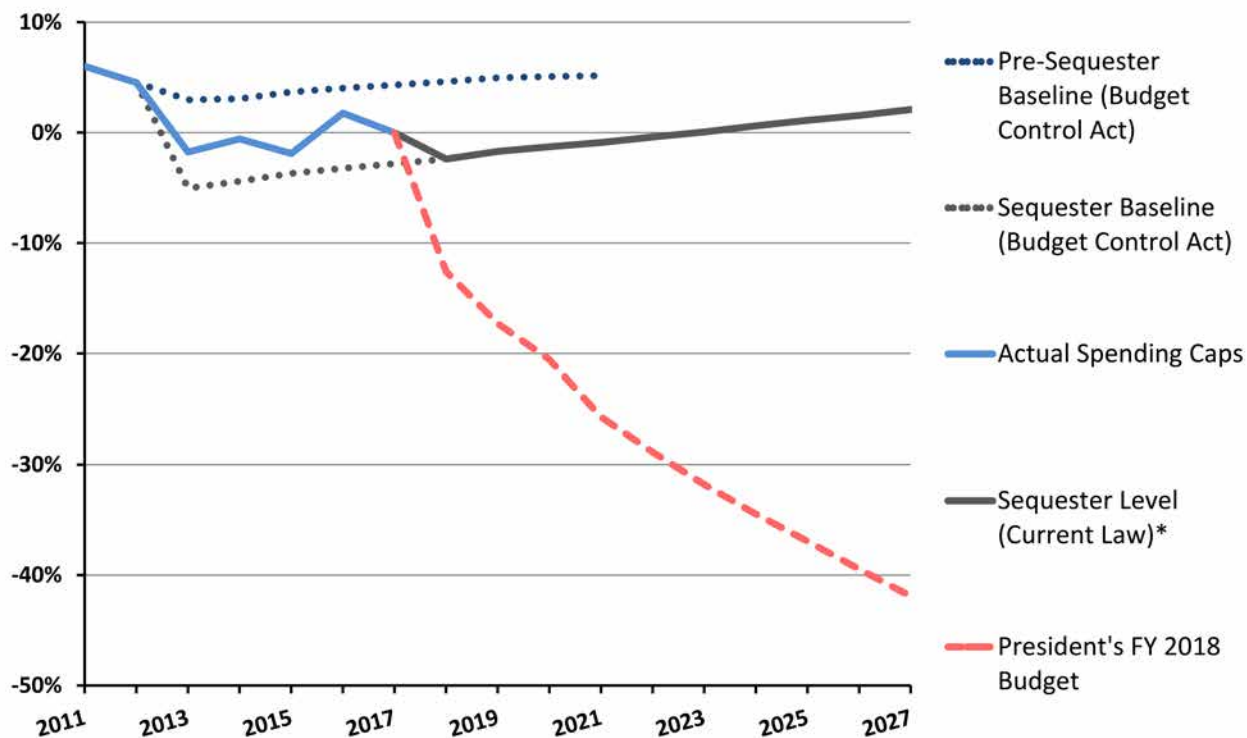


*Includes nuclear, fossil, efficiency and renewables, grid research, and ARPA-E.
FY 2009 includes Recovery Act funding. Based on AAAS analyses of historical agency data. © 2017 AAAS

Research Funding Trends

Limits on NONDEFENSE Spending

Estimated percent change from current year, inflation adjusted



*Current caps last through 2021; spending is projected beyond.

Based on past budget resolutions, the Budget Control Act and subsequent legislation, and the FY 2018 OMB summary tables. © AAAS 2017

Graduate Education Profile

Performance versus FY12

PHD
(RESEARCH)
ENROLLMENT

2,044

(DOWN 1.5%)

PHD
(RESEARCH)
DEGREES CONFERRED

233

(UP 1.3%)

PHD
(RESEARCH)
AVG YRS TO DEGREE

5.4

(10 BASIS PTS
FASTER)

MASTER'S
ENROLLMENT

6,227

(UP 1.6%)

MASTER'S
DEGREES CONFERRED

3,147

(UP 18.8%)

MASTER'S
AVG YRS TO DEGREE

1.8

(30 BASIS PTS FASTER)

Award Data: Monthly Compare

Excludes Student Aid

	FY 2018			FY 2017			FY 2016			FY 2015		
	Awards Received	Amount Awarded	Year to Date	Awards Received	Amount Awarded	Year to Date	Awards Received	Amount Awarded	Year to Date	Awards Received	Amount Awarded	Year to Date
Jul	132	\$16.2M	\$16.2M	119	\$18.3M	\$18.3M	140	\$14.4M	\$14.4M	149	\$19.M	\$19.M
Aug	146	\$20.1M	\$36.2M	129	\$15.M	\$33.3M	156	\$23.3M	\$37.7M	134	\$26.7M	\$45.8M
Sep	109	\$11.5M	\$47.7M	127	\$19.4M	\$52.8M	125	\$28.6M	\$66.3M	116	\$12.7M	\$58.5M
Oct	79	\$2.9M	\$50.6M	110	\$8.M	\$60.8M	89	\$7.1M	\$73.4M	93	\$4.2M	\$62.7M
Nov	64	\$3.6M	\$54.2M	79	\$6.5M	\$67.3M	81	\$3.8M	\$77.2M	79	\$5.8M	\$68.5M
Dec	58	\$9.3M	\$63.6M	92	\$9.5M	\$76.8M	100	\$9.4M	\$86.7M	85	\$5.9M	\$74.4M
Jan	43	\$3.8M	\$67.3M	87	\$8.9M	\$85.7M	89	\$8.8M	\$95.5M	69	\$6.7M	\$81.1M
Feb				97	\$7.8M	\$93.6M	86	\$12.4M	\$107.9M	90	\$9.2M	\$90.3M
Mar				114	\$16.5M	\$110.1M	128	\$12.9M	\$120.8M	99	\$12.6M	\$102.9M
Apr				93	\$8.6M	\$118.8M	80	\$12.3M	\$133.1M	95	\$11.8M	\$114.7M
May				149	\$10.M	\$128.7M	129	\$14.5M	\$147.5M	100	\$12.2M	\$126.9M
Jun				171	\$28.4M	\$157.2M	135	\$24.M	\$171.5M	107	\$13.6M	\$140.5M
Total	631	\$67.3M	\$67.3M	1,367	\$157.2M	\$157.2M	1,338	\$171.5M	\$171.5M	1,216	\$140.5M	\$140.5M

Proposal Data: Monthly Compare

	FY 2018			FY 2017			FY 2016			FY 2015		
	Proposals Submitted	Amount Requested	Year to Date	Proposals Submitted	Amount Requested	Year to Date	Proposals Submitted	Amount Requested	Year to Date	Proposals Submitted	Amount Requested	Year to Date
Jul	90	\$55.7M	\$55.7M	100	\$54.5M	\$54.5M	111	\$86.M	\$86.M	127	\$95.3M	\$95.3M
Aug	103	\$45.3M	\$101.M	102	\$46.M	\$100.5M	76	\$46.2M	\$132.2M	88	\$37.2M	\$132.5M
Sep	120	\$71.6M	\$172.6M	101	\$42.1M	\$142.6M	118	\$44.1M	\$176.3M	123	\$62.8M	\$195.3M
Oct	201	\$164.3M	\$336.9M	176	\$111.5M	\$254.1M	159	\$97.7M	\$274.1M	161	\$161.9M	\$357.2M
Nov	140	\$57.8M	\$394.7M	128	\$86.3M	\$340.4M	102	\$79.M	\$353.1M	119	\$88.4M	\$445.6M
Dec	103	\$44.2M	\$438.8M	95	\$44.2M	\$384.6M	79	\$39.3M	\$392.4M	94	\$47.6M	\$493.2M
Jan	45	\$15.5M	\$454.4M	114	\$34.6M	\$419.2M	107	\$70.M	\$462.4M	120	\$73.7M	\$566.9M
Feb				155	\$112.9M	\$532.1M	159	\$107.1M	\$569.6M	113	\$71.5M	\$638.5M
Mar				182	\$145.3M	\$677.4M	108	\$56.M	\$625.5M	105	\$92.2M	\$730.6M
Apr				83	\$24.8M	\$702.1M	115	\$70.M	\$695.6M	85	\$70.4M	\$801.M
May				91	\$35.5M	\$737.6M	103	\$43.M	\$738.6M	92	\$61.9M	\$862.9M
Jun				161	\$108.2M	\$845.8M	152	\$149.6M	\$888.2M	127	\$82.5M	\$945.4M
Total	802	\$454.4M	\$454.4M	1,488	\$845.8M	\$845.8M	1,389	\$888.2M	\$888.2M	1,354	\$945.4M	\$945.4M

Office of Research Initiatives

Initial Focus Areas

20th Century Research Institutions

- ★ Disciplinary emphasis
- ★ Closed/Inward-focused
- ★ Primary reliance on one or two federal funding agencies
- ★ Patents & Licensing Revenue

21st Century Research Institutions

- ★ Multi- and trans-disciplinary
- ★ Open/Outward-focused
- ★ Diversified portfolio of support
- ★ Spin-outs, start-ups and entrepreneurial activity

Office of Research Initiatives (24 mo)

Focus Area: Recognize and reward research

Focus Area: Establish culture of research development and support

Focus Area: Office of Research practices and processes

Focus Area: Hiring and retention

Focus Area: Infrastructure investments/improvements

Office of Research Priorities

Essential

- Create the framework, governance and leadership for Urban Futures Pathway and identify how existing clusters can be supported and resourced within this pathway
- Create a data-driven/data-informed Office of Research that enables greater research success within colleges/units
- Establish robust Research Development activities within the Office of Research

Important

- Develop opportunities for enhanced multi-investigator (cross-college) research activities and external support
- Identify strategies for increasing research success with mission-driven agencies and the state of Ohio
- Establish long-term research infrastructure support plan

Strategic Directions: Update

Thank You