

How UC's Undergraduate Research Program Compares to Those at Similar Institutions

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Introduction

- Access to research experiences tends to rely on student outreach to faculty.
- This pathway generates inequitable access to opportunity.
- Centralized Undergraduate Research (UGR) programs aim to increase access to opportunity.
- UC's UGR program is relatively new (Full-time director since 2017).
- There is much to learn from more established programs.
- I compared UC's UGR program to established programs & developed recommendations for UC.

Results






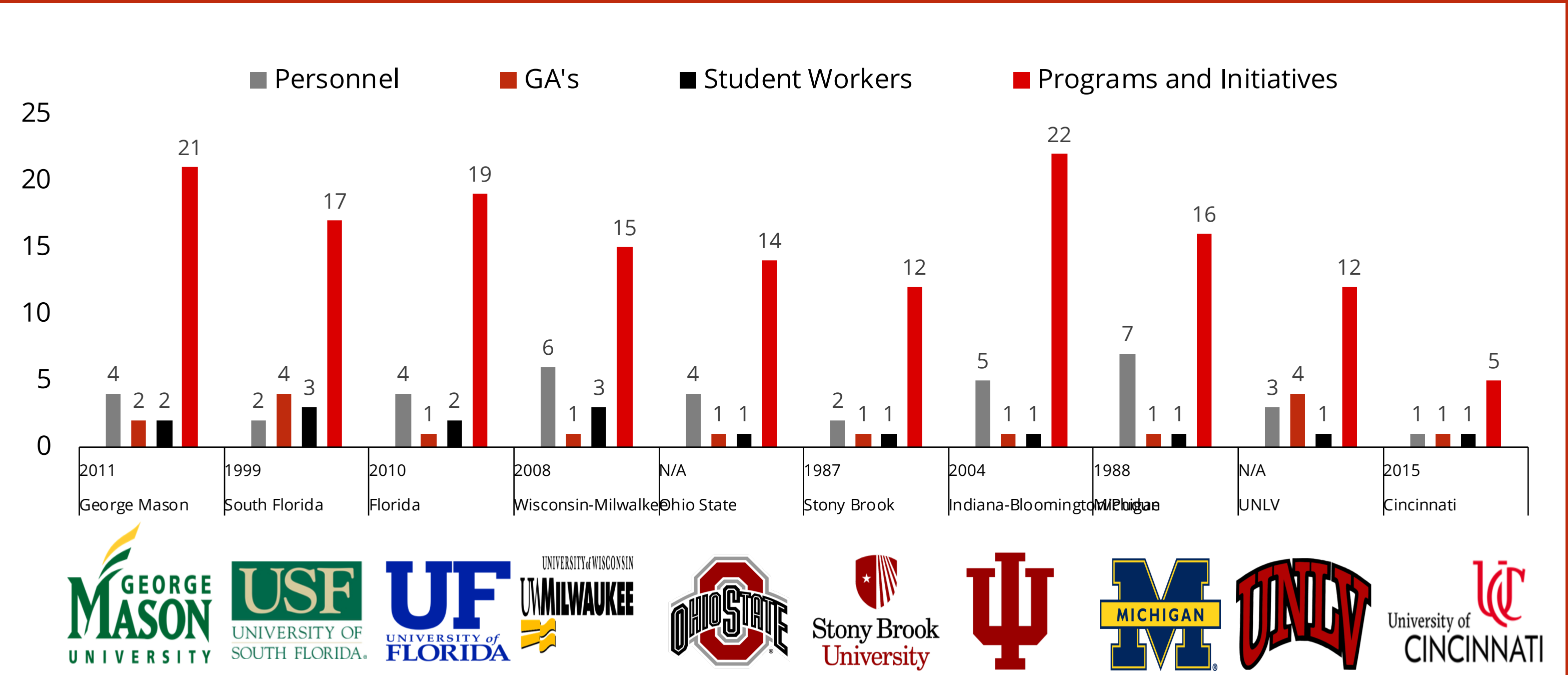
 Undergraduate Research Program 33,561 Students Est. 2014 #Programs: 4 Budget: \$115 K Personnel: 1	 Undergraduate Research Program 39,565 Students Est. 2010 #Programs: 19 Budget: \$667 K Personnel: 4	 Undergraduate Research Program 24,987Students Est. 2011 #Programs: 21 Budget: \$750 K Personnel: 4	 Undergraduate Research Program 21,398 Students Est. 2008 #Programs: 20 Budget: \$900 K Personnel: 6	 Undergraduate Research Program 33,429 Students Est. 2004 #Programs: 15 Budget: \$1 M Personnel: 5
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Figure 1. Comparison of 5 similarly-sized universities in terms of basic Undergraduate Research Program metrics.

Methods

- Reviewed publications by the National Council on UGR
- Identified 20 public, research-1 institutions similar to UC
- Developed metrics for comparing UGR programs & reached out to these 20 institutions for information & advice
- Compared differences between UC & 9 others using a 2-sample t-test for unequal variances on various metrics.
- Developed recommendations for UC based on key findings

A Comparison of Personnel and Programs Across Institutions



Institution	Year	Personnel	GA's	Student Workers	Programs and Initiatives
George Mason	2011	4	2	2	21
South Florida	1999	2	4	3	17
Florida	2010	4	1	2	19
Wisconsin-Milwaukee	2008	6	1	3	15
Ohio State	N/A	4	1	1	14
Stony Brook	1987	2	1	1	12
Indiana-Bloomington	2004	5	1	1	22
Michigan	1988	7	1	1	16
UNLV	N/A	3	4	1	12
Cincinnati	2015	1	1	1	5

Figure 2. Comparison of 10 similarly-sized universities in terms of personnel and programs supported by a centralized Undergraduate Research Program..


Information Gathered

Includes (number of responses)

- Undergraduate demographics (10)
- Date program was established (10)
- UGR strategic plan (3)
- Number of UGR programs (10)
- Number of full-time personnel (10)
- Number of student workers (10)
- Budget (5)
- **Advice (3)**


Summarized Findings

- UC undergraduate population is similar in size to compared institutions ($t = 0.96$, $df = 8$, $P = 0.81$), but the budget for its centralized undergraduate research program is 7 times smaller than 5 institutions for which a budget was provided ($t = 9.6$, $df = 4$, $P = 0.001$).
- Compared to similar institutions, UC's UGR Program has less than half the personnel ($t = 5.6$, $df = 8$, $P < 0.001$) and provides significantly fewer programs ($t = 9.4$, $df = 8$, $P < 0.001$).
- None of this is surprising considering that the program is relatively new; other programs had similar starts.
- Several institutions experienced challenges associated with tension between program development and permanent funding.



"...focus on introducing 1st & 2nd-year students to the larger culture of university research..."

"consider pursuing state Dept. of Education funds..."



"...must develop course-based experiences..."


"Don't try to recruit faculty, just attract them."

Recommendations

- Work with institutional leaders to develop a strategy to increase the budget & develop programs that serve diverse disciplines.
- Create and launch online research readiness courses to broaden access.
- Develop framework for course-based research experiences that can be instituted university-wide.
- Expand personnel to include an Assistant Director and a Program Coordinator
- Increase programs to scale with our student population

References

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