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.

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

Information Gathered

- 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)

Results

A Comparison of Personnel and Programs Across Institutions

Figure 1. Comparison of S similarly-sized universities in terms of basic Undergraduate Research Program metrics.

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

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.

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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