

Fostering Faculty Diversity by Supporting Access to Graduate Study in Education

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Student enrollment in higher education has become increasingly diverse (Cook & Cordova, 2006), but progress toward hiring socio-demographically diverse faculty remains slow (Turner et al., 2008). Faculty diversity is crucial for a variety of important outcomes including academic success and student development (Stanley, 2006). Moreover, the presence of faculty from underrepresented groups can advance research and teaching in new directions as scholars draw on diverse perspectives (Umbach, 2006). Despite the need for a diverse faculty, progress remains slow. Recent data indicates that 43% of college students in the U.S. identify as racial and ethnic minorities, compared with just 23% of full-time faculty (Musu-Gillette, 2017; NCES, 2017). While data on faculty representation by social class origin is unavailable, research demonstrates that careers in academia are frequently perceived to be unwelcoming for individuals from working-class backgrounds (Lee, 2017).

A range of barriers undermine efforts to diversify postsecondary faculty. The “leaky pipeline” from undergraduate to doctoral programs is one important factor (Turner et al., 2008). Research points to durable class- and race-based disparities in inclusion within higher education (Arum et al., 2018). While there are various explanations for disparate college experiences, theories of cultural capital offer useful insight. Drawing on the work of Bourdieu (1986), scholars demonstrate that disparities in cultural capital – in the form of knowledge, comfort, and cultural familiarity – limit diversity in access to graduate education (Posselt, 2016).

PROGRAM STRUCTURE AND ASSESSMENT

Drawing on these insights, the Summer Undergraduate Research Program (SURP) at UVA attempts to address inequalities in the pipeline to graduate education and faculty careers.¹

¹ For more detail on the mission of SURP, see the program website: <https://curry.virginia.edu/faculty-research/join-us/summer-undergraduate-research-program-surp>

SURP was designed to prepare underrepresented students for graduate study in education research by developing confidence with skills to support their transition to graduate school. The SURP admissions process identifies interns with demonstrated interest in and commitment to graduate education. For example, in the pre-program survey, one intern stated, “My main goal in life (academically and professionally) is to have a wide range of knowledge with conducting research and obtain an occupation in research. It is one of my main goals to obtain a PhD.”

SURP originated in 2008 as a part of the Virginia Education Science Training program, funded by a grant from the Institute of Education Sciences. Similar programs have been developed elsewhere (e.g., North Carolina Central University, New York University, and University of Texas-San Antonio). Despite the presence of such programs, there are few evaluations examining the extent to which they generate cultural capital that can be leveraged in the pursuit of graduate education.

This article offers insights from pre- and post-program surveys completed by interns who participated in SURP from 2010-2017. Specifically, we focus in on one aspect of cultural capital by considering whether participation increased interns’ perceived confidence in research skills. Pre- and post-program data were gathered from 60 of 62 SURP interns. Of the respondents, 35% identified as Black (n=21), 15% as Asian (n=9), 23% as Hispanic or Latinx (n=14), 20% as White (n=12), and 7% as Multiracial or “Other” (n=4). Eighty-seven percent identified as female (n=52) and 13% as male (n=8). Participants were socioeconomically diverse; 43% of students came from families with annual incomes of \$55,000 or less (n=26) and 27% from families making \$100,000 or more (n=16). Almost half (48%, n=29) were first-generation college students. Students were entering their final year of college and ranged in age from 20-24 years. Institutional Review Board approval was obtained to analyze data retrospectively.

With a commitment to increasing access to careers in research and education, SURP works to help students develop competence and comfort with a variety of skill sets relevant to graduate work in education research.² Participants answered the same questions about their research skills before and after the program. Paired sample t-tests were used to compare the pre- and post-program scores.

OUTCOMES AND CONCLUSION

Interns reported increased confidence in nine of the eleven measured research skills (Table 1). Effect sizes ranged from 0.3 (academic writing about research) to 1.3 (knowledge of educational research). Respondents reported no statistically significant improvement in collecting data and communication, skills they likely employed in prior undergraduate research. Taken together, the findings indicate SURP interns perceived greater knowledge and skills upon completion of the program. By becoming comfortable and familiar with these skills, students acquired an important facet of cultural capital that can facilitate success in graduate school.

As efforts to diversify postsecondary faculty continue (Turner et al., 2008), barriers related to inclusion in higher education and graduate school access must be addressed (Lee, 2017; Posselt, 2016). Presented findings indicate the value of the SURP experience for developing students' comfort with skills, one form of cultural capital to support students in conducting research. Future work is needed to examine other aspects of cultural capital viewed as SURP learning objectives including navigating graduate school, networking, and developing relationships with mentors. SURP is a multi-component intervention and it is difficult to know precisely which experiences produce the desired outcomes. Future work could follow SURP

² A list of sample SURP activities, a program administration timeline, and the SURP theory of change can be accessed at: <https://curry.virginia.edu/surp-paper-documents>

interns longitudinally or examine mediators of outcomes, using our theory of change as a guide for identifying critical ingredients.

We recommend that institutions enact the SURP theory of change developed at UVA to implement comprehensive programming. Funds are available for such efforts (Institute of Education Sciences, 2016). Programs like SURP may build cultural capital and increase skills in students from underrepresented backgrounds who are interested in pursuing graduate education. This work holds promise for increasing faculty diversity in the future.

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Table 1. T-Test Analyses Showing Pre- and Post-SURP Comparisons.

	Pre-program			Post-program			<i>t</i>	Effect Size
	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>		
How confident are you about the following:								
1. Collecting data (O1,O2)	4.10	0.93	59	4.17	0.87	59	0.43	0.08
2. Formulating research questions (O1,O2)	3.71	.87	59	4.31	0.56	59	5.77***	0.82
3. Analyzing an interpreting data (O1,O2)	3.47	1.06	59	3.92	0.88	59	2.99**	0.46
4. Academic writing about research (O1,O2)	3.53	1.01	58	3.83	0.86	58	2.07*	0.34
5. Selecting variables to answer research questions (O1,O2)	3.47	0.90	58	4.24	0.80	58	6.88***	0.91
6. Selecting appropriate measurement tools to answer research questions (O1,O2)	2.97	1.03	59	3.86	0.90	59	7.63***	0.94
7. Knowledge of educational research (O1,O2)	2.74	0.98	58	3.99	0.91	58	8.88***	1.33
8. Working on a research team (O2,O3,O4)	4.19	1.00	58	4.64	0.61	58	4.28***	0.56
9. Communication skills (O1,O2,O3)	4.31	0.65	58	4.41	0.73	58	1.18	0.17
10. Networking skills (O2,O3)	3.79	0.93	58	4.22	0.79	59	3.30**	0.50
11. Statistics and other quantitative methods (O1,O2)	3.07	1.00	59	3.68	0.95	59	4.86***	0.63

Note: Students selected ratings based on a 1 (not confident) to 5 (extremely confident) scale.

* $p < .05$, ** $p < .01$ and *** $p < .001$.

O1- SURP Outcome #1: Prepared to conduct research in education sciences

O2- SURP Outcome #2: Prepared for graduate school and opportunities in education science

O3- SURP Outcome #3: Expanded network and honed networking skills

O4- SURP Outcome #4: Developed new mentoring relationships