university
innovation
fellows

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Appendix D: Exhibits from SageFox Evaluation Reports for University Innovation Fellows Initiative

NSF Annual Report Y3

epicenter
National Center for
Engineering Pathways to Innovation

NSF   Stanford University   VENTUREWELL

University Innovation Fellows

UIF Program and Participant Characteristics
The UIF program, concluding its second year under the auspices of Epicenter, has grown substantially during the third year (Y3)[1] of the Epicenter project:
- 79 new Fellows became active this year (compared to last year's 33).
- Cohort 5 alone with 73 UIFs trained during the spring of 2014, contained more UIFs than in the previous Epicenter funded cohorts combined (C5, 73, last year, 58).
- 52 new schools joined the UIF community. There are now 74 schools with an Active Fellow (compared to last year's 33)
- 69 Sponsors supported students, largely because a new requirement the program instructed UIF applicants to submit a letter of support from their Sponsor with their program application.

More details about the program and its participants are offered in Table U-1, below (data provided by the program).

Table U-1: UIF Program and Participants Epicenter Project Year 2 and Year 3 (UIF program years 1 and 2)

	Epicenter Funding Year 2 (Y2)	Epicenter Funding Year 3 (Y3)
# of schools with an Active Fellow	33	74
# of schools that Sponsored their first Fellow	N/A	52
Total # of Active Fellows in Y3	34	101
# of Sponsors	N/A	69
Leadership circles	N/A	13
Cost to support a Fellow	$5,000	$2,000
Applicants[2]	N/A	115
Accepted	N/A	97
Did not start or did not finish training	N/A	9
Trained and graduated	37	88
Limited participation/left the program	3	9
# of Fellows that were Active in Y3 but trained in Y2	N/A	22
Stanford E-Week	11	N/A
Open (Y2)/Meetup (Y3)	20	88

Historically Black Colleges and Universities (HBCUs) also joined the UIF community in Y3 in association with Association of Public and Land-grant Universities (APLU) grants.

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[1] This is the third year of the Epicenter program. Year two (Y2) and year three (Y3) refer to Epicenter's funded years, not the UIF program.
[2] 12 were rejected because they had no Sponsor.

Figure U-2, below, shows an evaluation timeline, mapped to major program events.

C4 Completes Training				UIF Meetup/ Open Conference	C5 Completes Training	
November-2013	Dec	Jan	Feb	March	April	May - 2014
• Training Survey (C4)				• Observation (SageFox) • Fellow, Candidate Focus Groups (C4, C5) • Sponsor Interviews • Meetup Survey	• Training Survey (C5)	• Sponsor Survey • Follow-up Survey (C4, and Prior) • Impact Reporting Matrix (C 4, and Prior)

EVALUATION FINDINGS

Methods

In May 2014, fellows representing 50 of 74 schools (68%) completed an Impact Reporting Matrix. The matrix asked Fellows to report on the nature and success of their I&E efforts in Y3, including types of completed activities, additions of infrastructure, and the number of participants where applicable) that they had offered. Appendix B contains more details about the Impact Reporting Matrix nomenclature, response rate, and methodology used to collect the data.

Results

As illustrated in Table U-2, below, with data from the UIF Impact Reporting Matrix (provided by the fellows themselves):

- Through more than 400 UIF initiated events and programs, Fellows reported reaching more than 11,000 stakeholders on their campuses, including students, faculty and administrators.
- Fellows in Y3, reported 2,500 fewer participants (for activities combined) than Y2 Fellows (11,465 total participants for Y3 compared to 13,537 total participants in Y2).
- However, Y3 reported significant increases in the following:
  - three times as many awareness raising activities,
  - almost four times as many long- and short-term engagement activities, and
  - considerably more infrastructure: Fellows expanded their efforts to implement substantially more sustainable initiatives on their campuses. Y3 initiated 22 new innovation spaces on their campuses and 59 cases of other new infrastructure (compared to six total combined instances of infrastructure established in Y2).

Table U-2: Comparison of Fellow activity Epicenter (Y2) vs. (Y3), from monthly reports and the Impact Reporting Matrix, respectively

Y2 n=25 (Fellows) *Y3 n=50 (Schools)*	Awareness		Engagement – Short-Term		Engagement – Multi-day		New Space		New infrastructure (other than space)	
	Y2	Y3	Y2	Y3	Y2	Y3	Y2	Y3	Y2	Y3
# of Fellows/Schools reporting activity	19	45	18	37	14	23	0	21	6	34
Number of activities	60	186	41	169	23	74	0	22	6	59
Total estimated # participants **	9298	7206	3089	2907	1150	1352				
Average # participants per activity	155	39	75	17	50	18				

Progress towards the program's national objective:
UIF logic model objective 3: To create a national movement that is student-driven and supporting of I&E in higher education.

Findings relating to "To create a national movement":
The program has developed into an important asset for Epicenter in terms of visibility, reputation, and potential to effect national change.
Epicenter is starting to gain access and influence through publicity generated about UIFs' accomplishments, collaborations and interactions with high profile and prestigious institutions and innovators including the United States White House, Google, and Stanford.
Fellows are being invited to present their accomplishments at national conferences (e.g., Open and Grand Challenges)
The program has strategically partnered with organizations that are nationally promoting I&E (e.g., 3DS, Design for America, the United States White House)

Findings relating to "student-driven [movement] and supporting I&E in higher education"
- Y3 more than doubled the number of students trained since Y2
- Y3 provided Fellows with the opportunity to develop stronger I&E networks
- Y3 Fellows felt a part of a large and growing national student movement championing I&E.
- Y3 Fellows embrace and internalize Program Leadership's passion, ambition and commitment to the national mission of promoting I&E culture.
- A third of the Fellows would like more opportunities to meet and provide I&E offerings across institutions and regions or to promote I&E nationally. This indicates that these Fellows have internalized the program's national mission.

Progress towards the program's institutional objective:
UIF logic model objective 2: To support student/Fellows to create sustained change at their schools regarding I&E (exposing faculty, staff & institutional leaders)

- Landscape maps and strategic plans serve as a guide from one Fellow to the next, increasing the likelihood that Fellows' efforts are focused (rather than dependent on the interests of the Fellow who is active at the moment) and will stay on track through multiple Fellows.
- Leadership Circles were implemented ensure sustainability of the program.

<u>Leadership Circle impact data comparison (vs. Single UIFs)</u>
- The value of Leadership Circles is apparent. On average UIFs working together in organized Leadership Circles, (compared to Single UIFs) hold 30% more Awareness Activities, 43% more Short-term Engagement Activities, and 12% more Long-term Activities.

Table U-3: Difference in Impact Reporting Matrix: Leadership Circle (LC) vs. Multiple UIFs at campus (w/o LC) vs. Single UIFs

LC n=13 Multi n=10 Single n=55	Awareness			Engagement – Short-Term			Engagement – Multi-day			New Space			New infrastructure (other than space)		
	LC	Multi	Sing.	LC	Multi	Sing.	LC	Multi	Sing.	LC	Multi	Sing.	LC	Multi	Sing.
# Schools reporting activity	8	9	31	8	8	24	4	6	15	5	3	15	8	6	24
# of activities	40	41	109	55	29	94	10	35	33	5	3	16	11	9	45
Total estimated # parti-cipants **	2566	2569	2896	608	810	1689	125	317	995						

<u>Findings, exposing ,and engaging faculty, staff, and institutional leaders to I&E</u>

- UIFs are expanding their campus I&E communities beyond students, by engaging faculty and administrators in discussions about I&E needs. Evidence of increased infrastructure indicates that the Fellows have been successful at garnering buy-in from faculty and administrator, stakeholders crucial to influencing change in academia.
- Sponsors reported that they are collaborating with their UIF(s) (94%), perceive that one of their important roles is to help UIFs navigate campus organizational structures (95%) and are helping their UIF(s) acquire and connect with resources (97%). (See Figure U-4 below)

Figure U-4: UIF Sponsors' experiences with their UIF(s).
          % agree + strongly agree
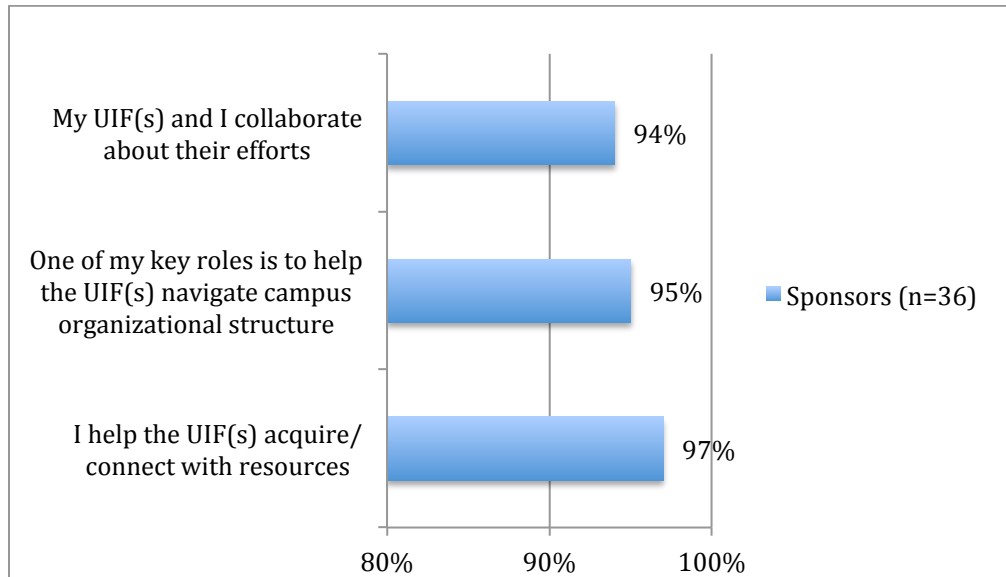
Progress towards the program's individual objective:
UIF logic model objective 1: To equip students with the knowledge and skills to advocate for I&E
  • Program leadership was tremendously successful in accomplishing this objective, primarily through the UIF Meetup which:
    – empowered UIFs as change agents, galvanized their sense of identity, helped them build confidence and embrace their roles as student leaders,
    – strengthened Fellows' bonds with one another and expanded their I&E networks to include Meetup presenters from organizations championing I&E (i.e. 3Ds, Stanford, Google, Design for America etc.
  • Fellows reported that the Meetup was inspirational and motivational, and increased their personal understanding of I&E. They also reported they it had increased their desire to improve their campuses and to collaborate on multiple levels.

Fellows in Y3 identify more as empowered student leaders (compared to Y2)
 • 92% of the Fellows from C4 identified themselves as a member of a national student community working towards change and 90% of C5 identified themselves as a part of national community of UIFs. (Compared to 52% of Fellows in Y2).
  • 85% of the Fellows in Y3 felt empowered as change agents on their campus compared to 74% in Y2.

UIFs perception of their role and their identity as a cohesive and elite group
Figure U-5, below, illustrates that Fellows' perceptions of their roles align with high-level Epicenter objectives, namely, to target undergraduate engineering students, to create sustained change, and to contribute to a national I&E movement.

Figure U-5: Please indicate your agreement with each of the following. With regard to I&E my role as a UIF is to:

% agree + strongly agree
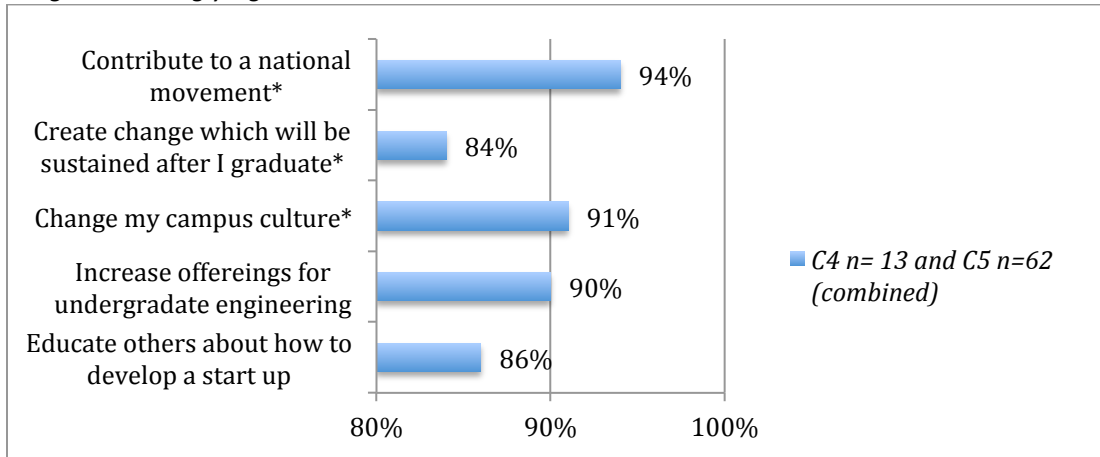
Value of the UIF community and collaboration
- About half of the Fellows reported that the most valuable part of the program is the UIF community itself. Reasons included: the community is a resource for advice and collaboration and inspiration and, the community offers opportunity to meet and work with like-minded student leaders committed to I&E and to improving their campuses.
- C4 Fellows implemented about 20% more of the practices that they learned about from other UIFs than the Fellows in Y2. (C4 77%, Y2 58%)
- As a result of their participation in the Meetup, UIFs reported that they benefitted from:
  — valuable networking opportunities with other students (92%)
  — university faculty and staff (79%), and
  — other professionals in the I&E Ecosystem (88%.)

C4 Fellows found support from the UIF community to be more valuable overall in comparison to Y2 Fellows, and is evidence that the program is improving. (Illustrated in Figure U-6, below)

Figure U-6: Please rate how valuable you found/find each of the following to be:
% Saying Valuable/Extremely Valuable
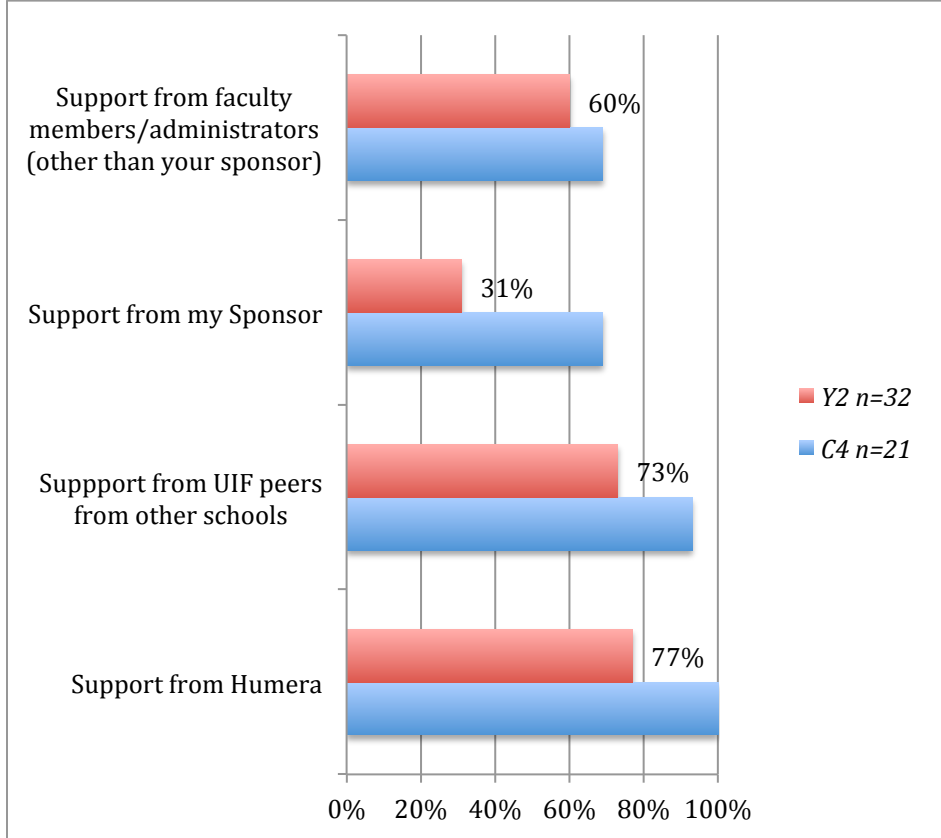
Impact on Undergraduate Engineering Students: Y2 vs. Y3
Fellows from Y2 perceived that their contributions to undergraduate engineering students were about the same as Y3 in every category expect for increasing the engagement of undergraduate engineering students in I&E education. In this category, Y2 Fellows felt they had contributed significantly more than C4 Fellows. (Y2 26%, C4 8%) (See Figure U-7, below)

Figure U-7: Please indicate to what degree you (as a UIF) have contributed to the following (so far) for undergraduate engineering students on your campus.

% Saying A Lot/A Great Deal