

ENERGY INTERNSHIPS IN NORTH CAROLINA

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The work described in this paper was funded by the State Energy Office,
North Carolina Department of Commerce with funds provided by the
American Recovery and Reinvestment Act of 2009

*A Report on
the Impacts of
the State
Energy
Internship
and
Fellowship
Program*

APRIL 2012

Energy Internships in North Carolina: A Report on the Impacts of the State Energy Internship and Fellowship Program

Prepared for the
State Energy Office
N.C. Department of Commerce
Raleigh, N.C.

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Energy Internships in North Carolina: A Report on the Impacts of the Student Energy Internship and Fellowship Program

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Report available at: <http://energy.appstate.edu/publications>

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Introduction

A large pool of talented and diverse professionals who can develop and produce the products, provide the services, and educate the workforce is required to build a prosperous, growing, and globally competitive green economy in North Carolina. To increase the chances of retaining talented college-educated workers with green-economy oriented skills, the Student Energy Internship Program¹ (SEIP) was created by the N.C. Department of Commerce in order to provide students and recent college graduates with successful work experiences in the green energy field. Specifically, the SEIP was established for the purpose of providing “on-the-job work experiences for current or recently graduated students that would enhance their education through this experiential opportunity, assist businesses and organizations in the fulfillment of their missions, and encourage these students to consider employment in green energy-related careers in North Carolina.”

Educational institutions, local and state government entities, and nonprofit organizations were eligible to apply for funding, and for-profit entities were expected to be primary recipients of interns and fellows. The program was also intended to ensure that services provided by award-funded projects would achieve the broadest possible geographic coverage in North Carolina, with proposals receiving additional evaluation points for offering services in Tier 1 (10 points) and Tier 2 (5 points) counties.

Two categories of positions were defined under the SEIP program: internships and fellowships. Competitive internships lasting from 10 weeks to one year were available for currently-enrolled students or to graduates from the prior three years; fellowships were post-degree placements lasting from six months to two years that were geared to provide a more comprehensive experience. Funded projects could choose to pay their student participants between \$10 and \$25 per hour.

Award-funded projects were responsible for the coordination and oversight of employment placements, and for ensuring that host employers provided a well-supervised and positive work experience for student participants. Even though employment positions had to be directly related to energy efficiency or renewable energy production, the program encouraged participation from students with a wide variety of backgrounds, including business administration, management, public policy, law, engineering, architecture, public administration, environmental studies, education, marketing and communications, various physical sciences, sustainable development, entrepreneurial enterprise development, agricultural sciences, and traditional trade specialties.

The SEIP became much larger than initially expected. The request for proposals indicated that about \$2 million in total funding would be awarded to between 5 and 15 projects in amounts from \$30,000 up to \$500,000, and resulting in about 200 position placements. The actual program was about three times the expected size, with \$6.3 million in total funding awarded to 28 projects and resulting in nearly 600 internship and fellowship positions—in spite of the program timeline being compressed from the expected two-year timeframe to just over a year and a half.

¹ RFP #201000012, Issued by the N.C. Department of Administration, Division of Purchase and Contract on 17 February 2010.

Executive Summary

PROGRAM OUTCOMES

North Carolina's State Energy Internship & Fellowship Program (SEIP) was a \$9.5 million program with 28 award recipients located in 15 counties and 10 congressional districts. The combined goal for award recipients under the SEIP was to make 557 internship/fellowship placements, and as of December 2011² recipients had reported 569 placements— 102.2% of the goal. Interns and fellows were placed at more than 242 host organizations and worked in 47 counties across the state (Table ES 1).

Table ES 1

Performance Metrics for the SEIP	
<i>Program Totals</i>	
28	Number of Grant Awards
557	Internship/Fellowship Placement Goal
569	Actual Number of Placements*
242	Organizations Hosting Interns/Fellows*
\$6,297,144	Grant Award Funding
\$3,199,004	Matching Funding
\$9,496,148	Total SEIP Funding
<i>Program Averages</i>	
20.3	Internship/Fellowship Placements per Grant Award
8.6	Host Organizations per Grant Award
2.4	Internship/Fellowship Placements per Host Organization
\$224,898	Grant Funding per Grant Award
\$114,250	Match Funding per Grant Award
\$339,148	Total Funding per Grant Award
\$11,067	Grant Award Funding per Internship/Fellowship Placement
*from October 2010 through December 2011 (SEIP continued through March 2012)	

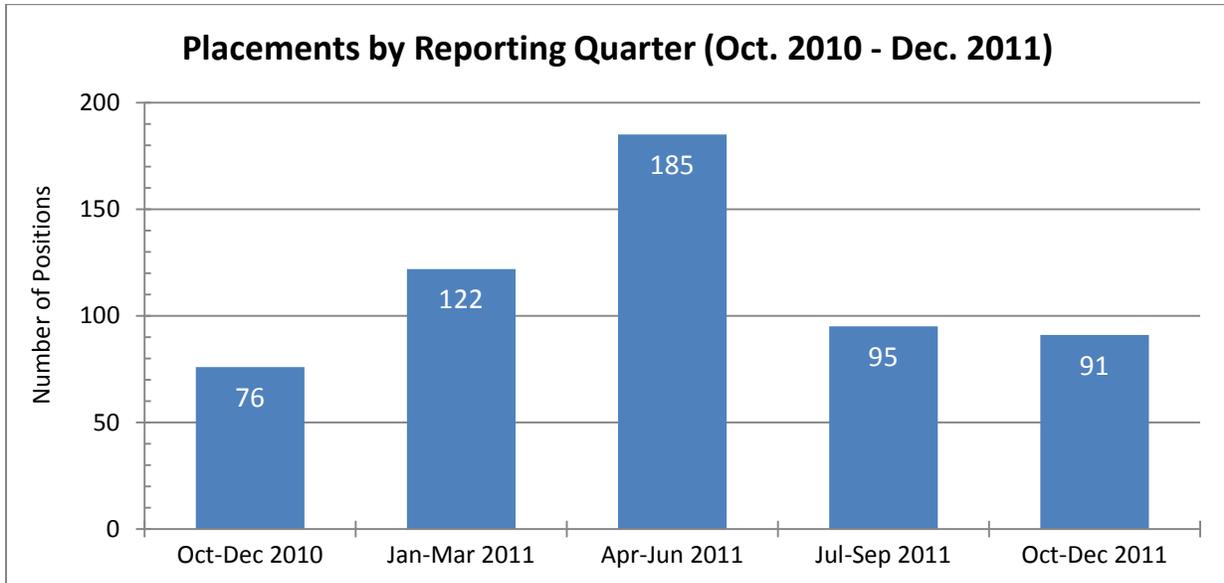
Nearly 70% of all internships and fellowships were attributable to eight funded projects. While several grant-funded projects focused their efforts in placing interns and fellows during only one or two reporting quarters, the eight top-performing projects placed interns and fellows on a near-continuous basis from one reporting quarter to the next.

Activity in the award projects peaked during the third reporting quarter (April through June 2011) at 185 placements. The SEIP ramped up quickly from its October 2010 start as the number of placements

² The program operated for six reporting quarters, starting in December 2010 and ending in March 2012. Data reported here are based in part on a survey of awardees, interns/fellows, and host organizations that was conducted in February-March 2012 and on project quarterly reports from December 2011.

statewide increased by more than 50% per quarter for the first three reporting quarters and then leveled off at just over 90 placements per quarter during the two most recent quarters (Figure ES 1).

Figure ES 1

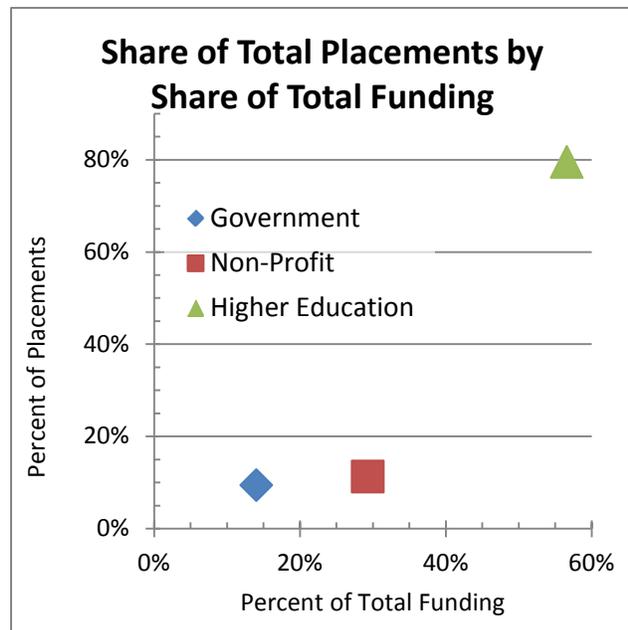


Overall, as expected from a program targeting college students and recent graduates, higher education organizations represented well over half of total project funding and accounted for nearly 80% of all internship and fellowship placements, as shown in Figure ES 2.

Government and non-profit organizations accounted for about 9% and 11% of placements and received 14% and 29% of total project funding, respectively.

Although awards were made to organizations located in 15 counties, the program’s direct impacts were experienced much farther afield as interns and fellows were put to work in at least 47 counties. Figure ES 3 demonstrates the reach of the program impact, showing the number of internship and fellowship placements by county. While every county that was home to an organization that received grant award funding also received internship or fellowship placements, more than two counties benefitted from the program for every county in which an award was made.

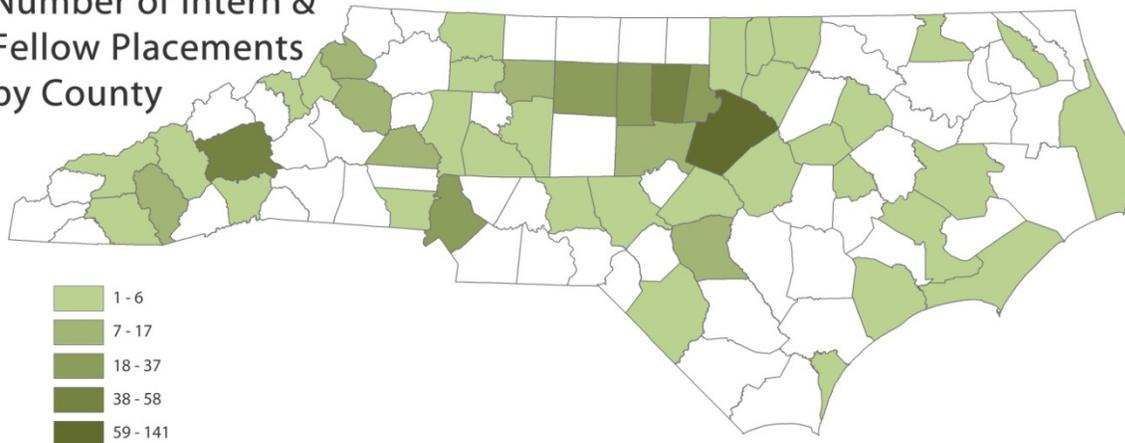
Figure ES 2



The SEIP encouraged projects to place interns and fellows with host employers in the more economically distressed Tier 1 and Tier 2 counties. 70% of the highest tier (Tier 3) counties received employees from the SEIP. Interns or fellows were placed in 12 of 40 (30%) Tier 1-designated counties, as well as 28 of 40 (70%) Tier 2-designated counties.

Figure ES 3

Number of Intern & Fellow Placements by County

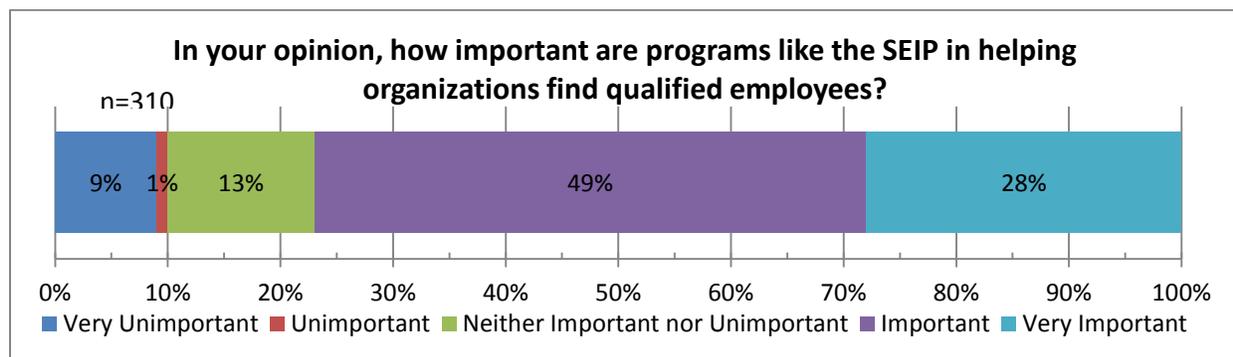


PARTICIPANT SURVEY

As part of the program evaluation, a survey of participants was conducted in an effort to quantify both participant experiences and the program’s overall efficacy in serving its intended purpose. The survey also provided an opportunity for award recipients, interns and fellows, and host organizations to provide direct qualitative feedback on a variety of topics related to the program.

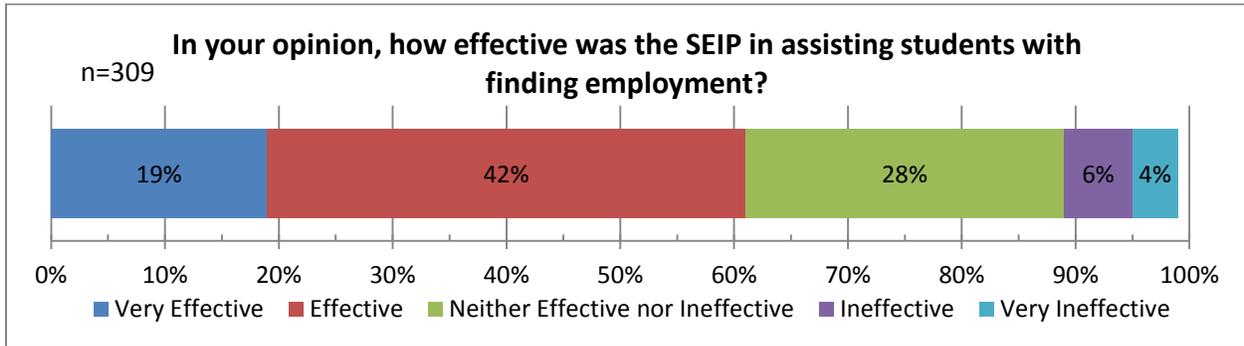
Overall, 77% of survey respondents rated the SEIP as either “important” or “very important” in helping organizations find qualified employees, and an additional 13% of respondents were neutral. Nine percent of respondents indicated that the program was “very unimportant” in helping organizations find qualified employees, and among host organization responses 16% rated the program as “very unimportant.”

Figure ES 4



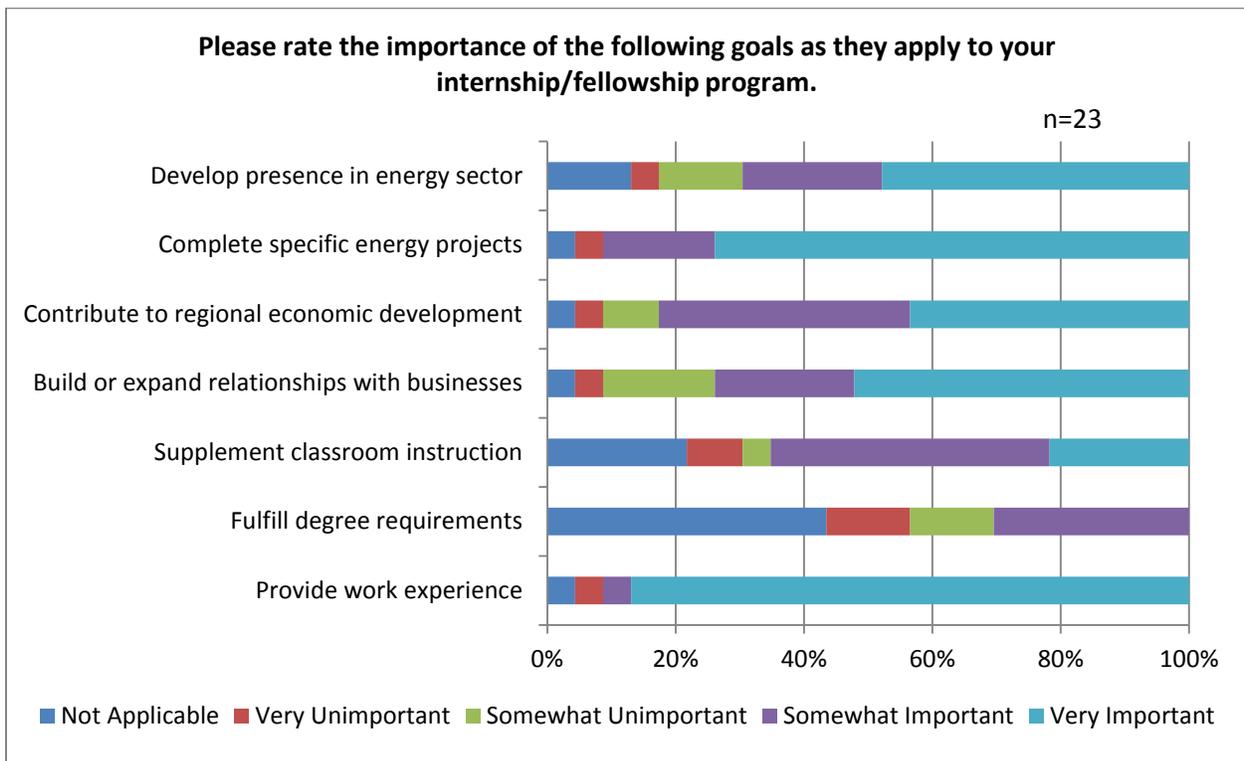
On the other hand, 61% of respondents rated the SEIP as either “effective” or “very effective” in helping students find employment. The 10% of responses indicating the program was “ineffective” or “very ineffective” were primarily from respondents who participated in the program as interns or fellows (Figure ES 5).

Figure ES 5



Respondents were presented with a list of possible goals for their project and were asked to rate the importance of each goal. About 85% of responses indicated that providing work experience was a “very important” goal of their project. The second most important goal was completing specific energy projects which received ratings of “somewhat important” or “very important” from about 90% of respondents (Figure ES 6).

Figure ES 6



The SEIP provided funding for both internships and fellowships. Internships were typically designed as positions for current students, and were of shorter duration than fellowships. Fellowships were designed for recent graduates who were eligible for full-time work for longer periods of up to a year or more. More than half (55%) of interns worked less than 600 hours and 33% of interns worked between 601 and 1,000 hours, while 68% of fellows worked for 1,000 hours or more (Figure ES 7 and ES 8).

Figure ES 7

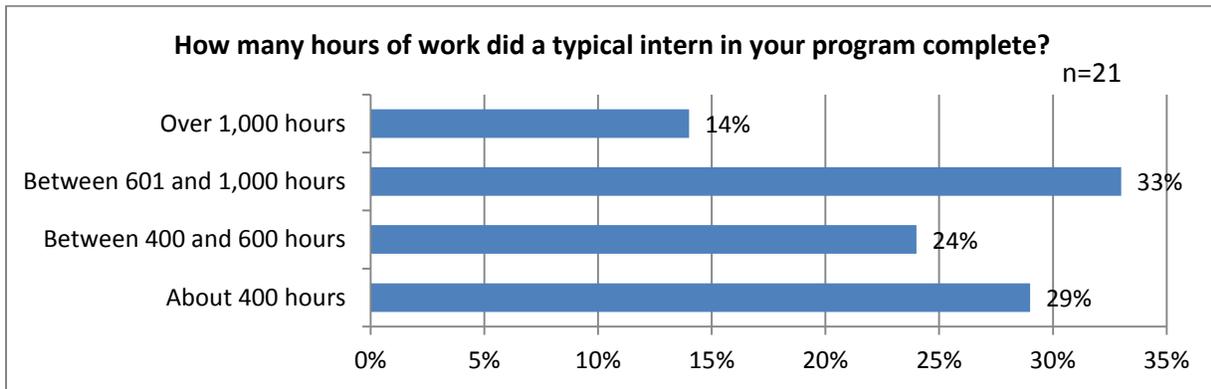
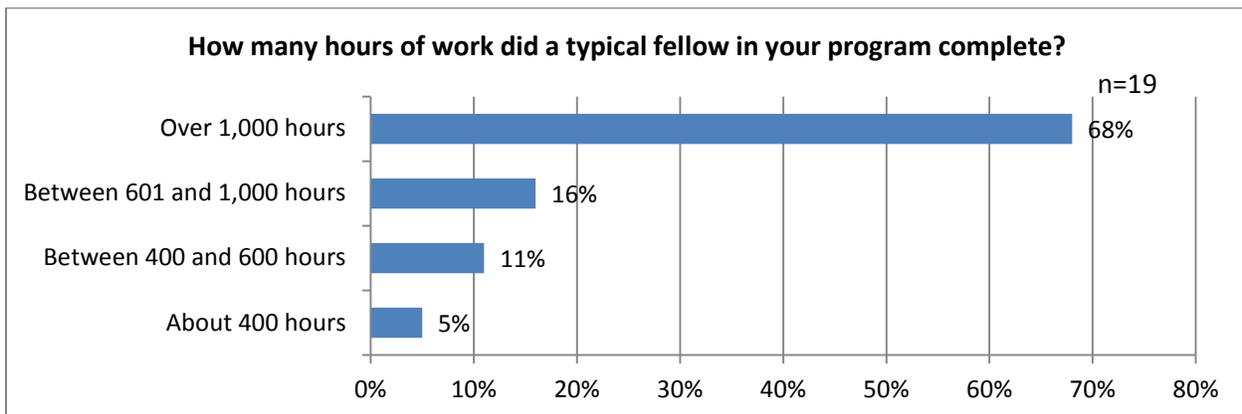
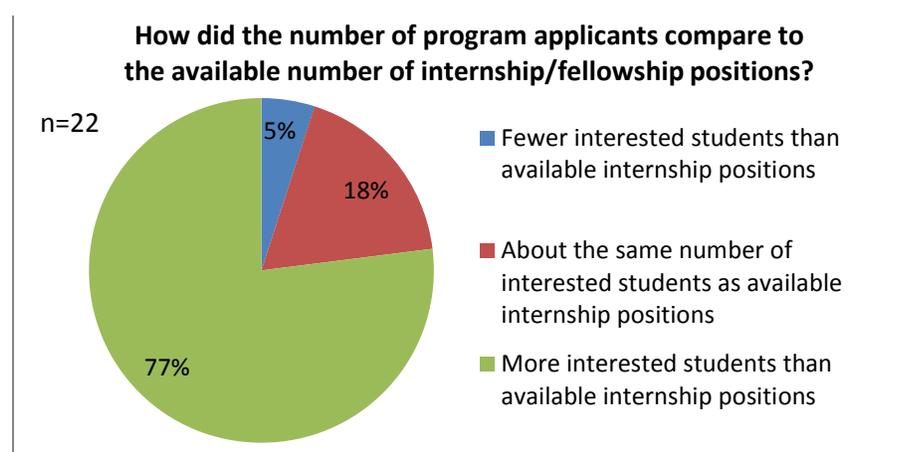


Figure ES 8



The SEIP-funded placements appear to have been competitive, with 77% of respondents indicating that there were more interested students than available positions. Only 5% of responses indicated they had fewer interested students than positions.

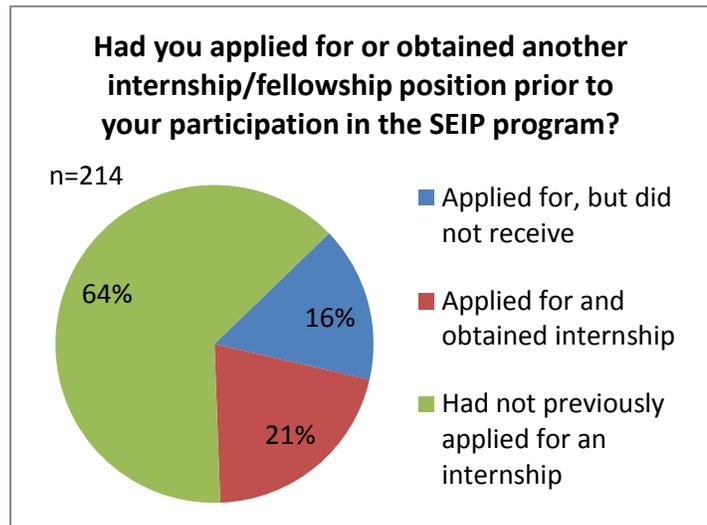
Figure ES 9



Overall, based on responses to text-entry questions, the interns reported experiences that were beneficial in two key areas: work experience and education. Interns and fellows were able to gain valuable technical/field-related experience as well as experience in business areas not available to them in the classroom setting. This included professional networking, project management, and soft skills. They were able to leverage the experience to secure other non-SEIP internships or to gain full-time employment in the industry. Interns/fellows also indicated that the program enhanced community awareness around energy issues.

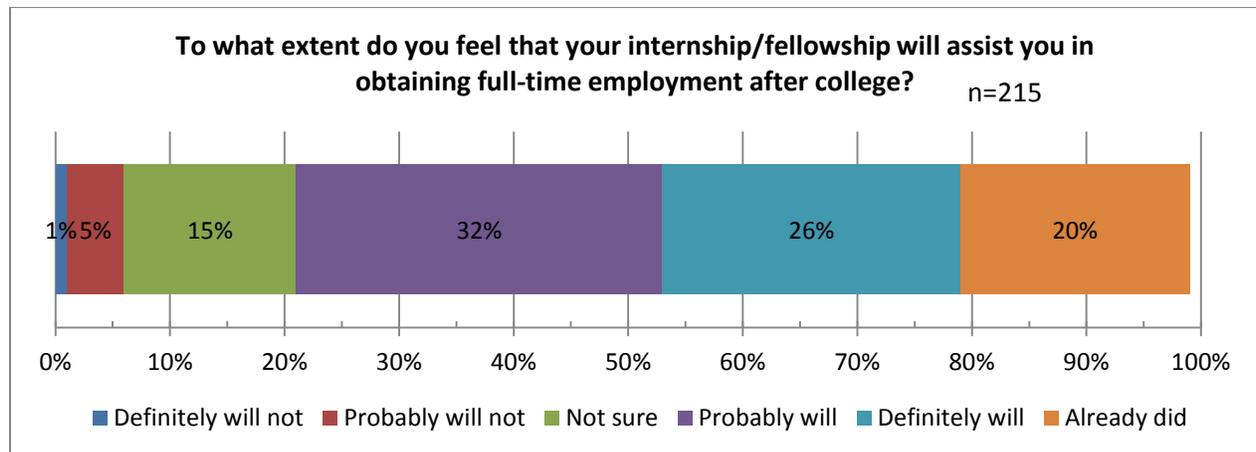
The majority – 64% – of responding interns and fellows had not previously applied for an internship prior to the SEIP. Among those who had previously applied for an internship, 21% had previously obtained an internship and 16% had applied but did not receive an internship (Figure ES 10).

Figure ES 10



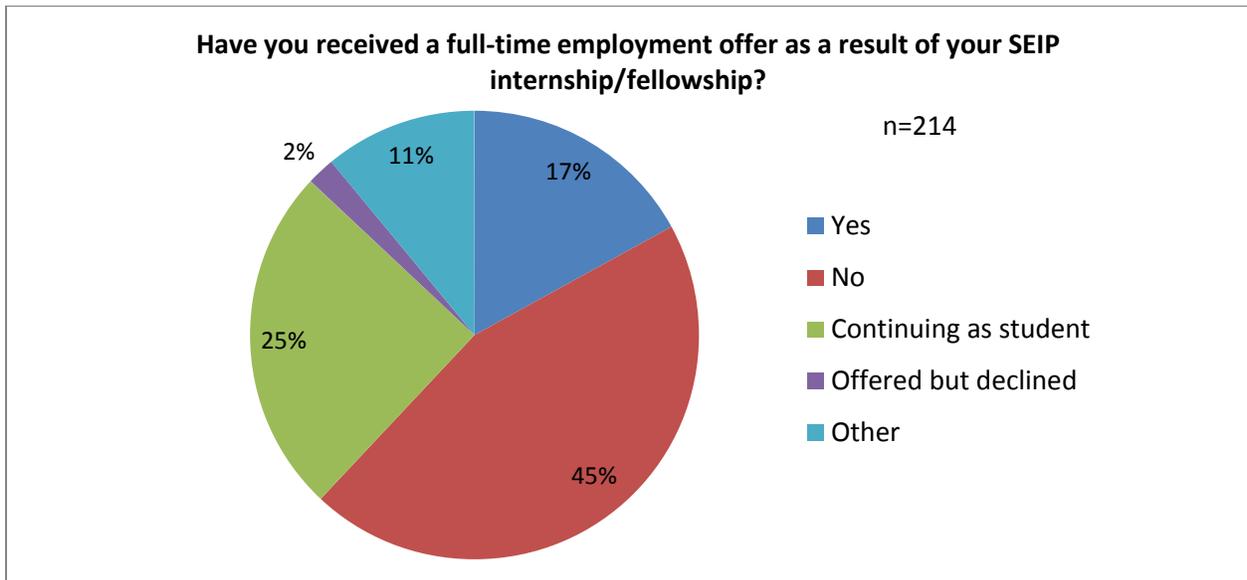
Among responding interns/fellows, 20% had already obtained full-time employment at the time of the survey, and 58% felt that the SEIP program “probably” or “definitely” would assist them in obtaining full-time employment after college. Only 6% of respondents indicated that the program “probably” or “definitely” would not assist them in obtaining full-time employment after college, and 15% were unsure (Figure ES 11).

Figure ES 11



As a result of the internship or fellowship, 17% of responding students indicated they had received a full-time employment offer and an additional 2% received an offer but declined. A quarter of respondents indicated they were continuing as a student and thus were not currently available for full-time employment, and 45% had not received an offer of full-time employment (Figure ES 12).

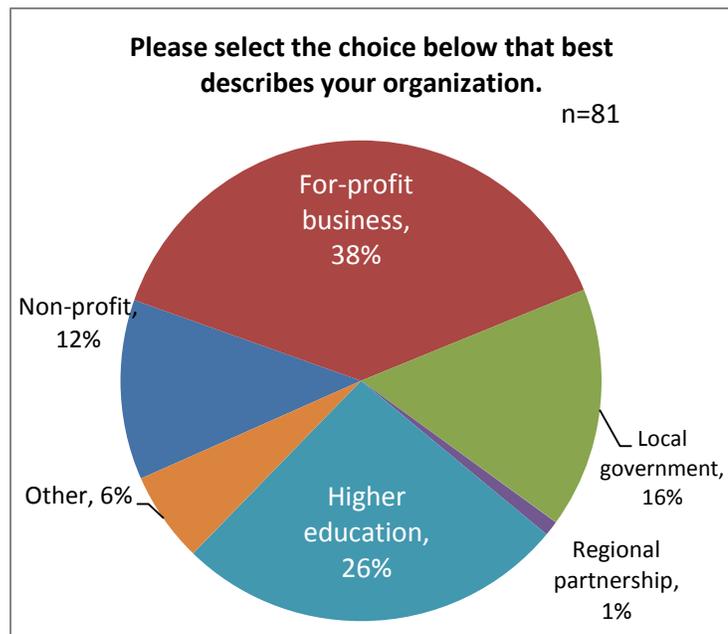
Figure ES 12



Among those indicating they became employed as a result of the program, on average 88% of their work was reported to be related to energy.

Figure ES 13

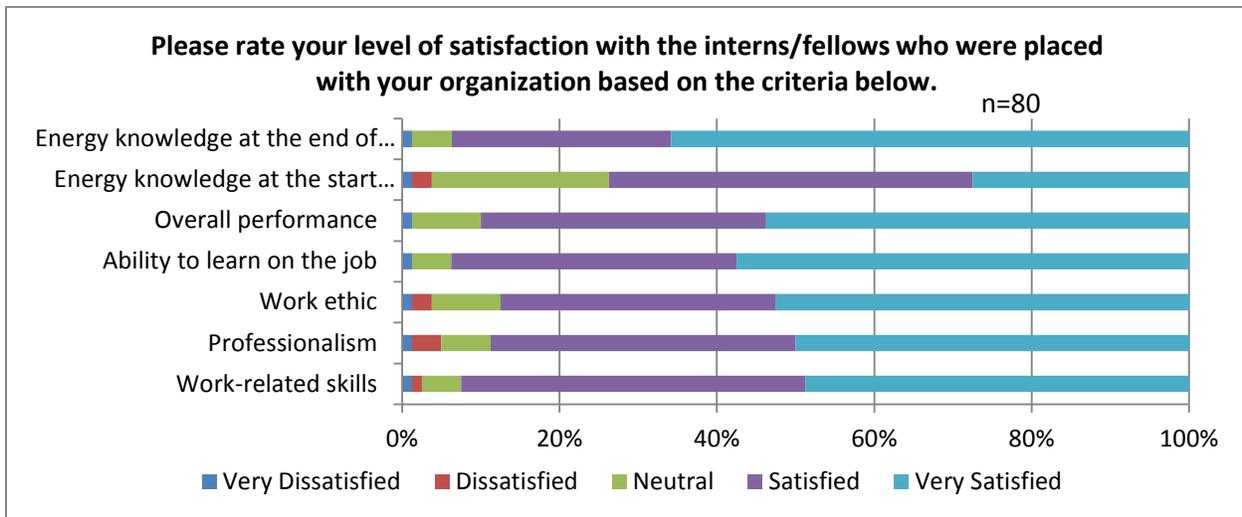
Interns and fellows were placed with many types of host organizations. Among host organizations respondents, 38% were for-profit businesses and 26% were higher education institutions. Local governments accounted for an additional 16% of host organizations, and non-profits represented 12%, as shown in Figure ES 13.



Responding host organizations were asked to rate their level of satisfaction with the interns/fellows who were placed with their organization. Notably, the level of satisfaction with the energy knowledge of interns/fellows increased significantly between the start of the internship or fellowship to the conclusion. Only 28% of host organizations were “very satisfied” with students’ energy knowledge at the start; another 46% were “satisfied” and 4% were either “dissatisfied” or “very dissatisfied.” At the end of the work experience, however, only 1% remained “very dissatisfied” and 94% of responding hosts were either “satisfied” or “very satisfied” with the energy knowledge of their interns and fellows.

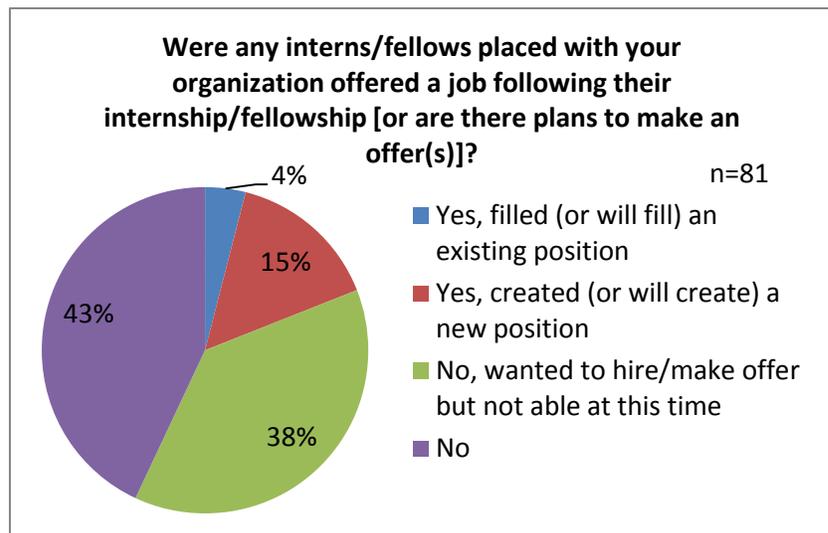
This shift in the satisfaction of hosts with the students' energy knowledge is also reflected in the 94% of hosts indicating they were "satisfied" or "very satisfied" with students' ability to learn on the job. Overall performance opinions were also very positive with 54% of responses indicating "very satisfied," 36% "satisfied," and 9% neutral. The two criteria for which host organizations indicated the least satisfaction were professionalism and work ethic, which received largely positive responses but also received 5% and 4% negative responses, respectively (Figure ES 14).

Figure ES 14



The overwhelmingly positive responses to intern/fellow performance are reflected in the interest host organizations showed in hiring these students. About 4% of responding host organizations filled an existing position through the SEIP, and perhaps even more telling, 15% indicated that a new position was being created to employ an intern or fellow following the conclusion of their SEIP position. An additional 38% of respondents expressed a desire to hire an intern or fellow, but were unable to at the present time.

Figure ES 15

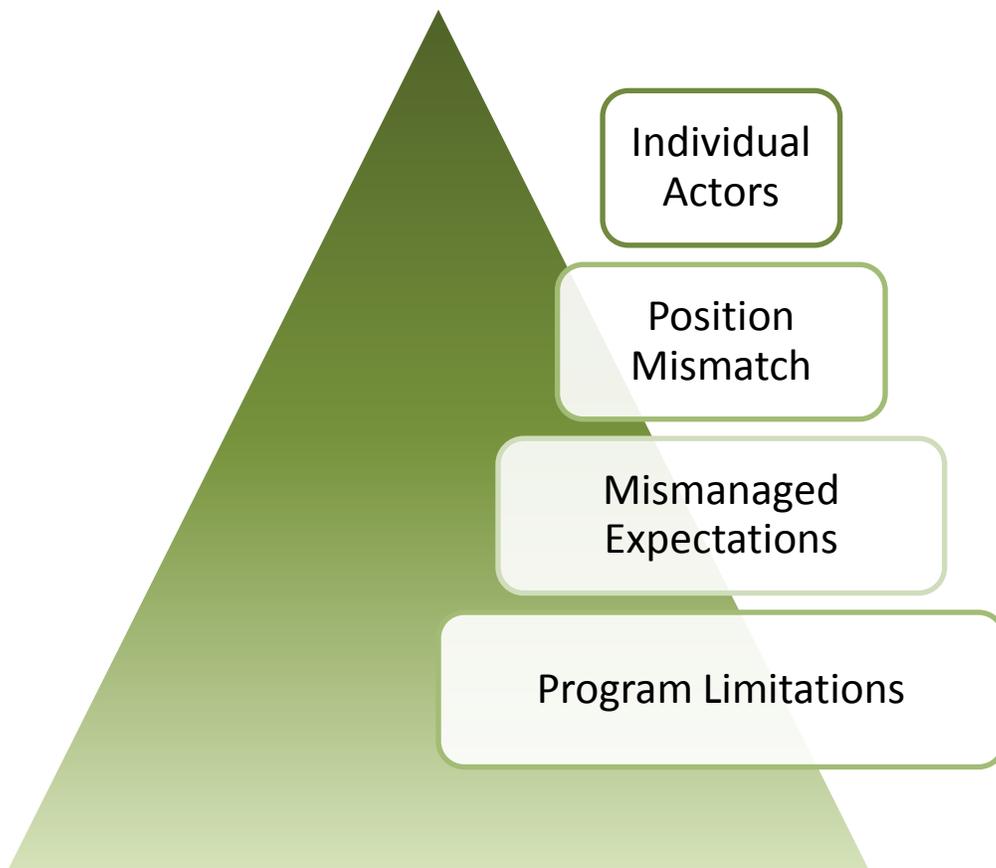


PROJECT METHODS & APPROACHES

The work experiences of interns and fellows covered a broad range of activities in many different sectors with varying degrees of satisfaction among both host employers and interns/fellows. Based on

comments provided by survey respondents, a hierarchy of factors affecting the outcome of individual job placements was derived. This hierarchy, shown in Figure ES 16, provides a framework for identifying opportunities to improve the program’s success rate and, perhaps more importantly, isolate the locus of risks contributing to unsuccessful job placements so that any future programs may incorporate design elements that minimize these risks. “Individual Actors” refers to perceived shortcomings on the part of the interns/fellows or the host organization. “Position Mismatch” occurred when individuals were placed with host organizations to perform work that was not a good fit with their skill/knowledge based. “Mismanaged Expectations” resulted when aspects of the project or the placements were not handled in the way participants thought they would be. Finally, “Program Limitations” refers to requirements and constraints imposed by the funding agencies that were seen as burdensome by participants in the program. An expanded description of these factors is provided in the full report.

Figure ES 16



ATTAINMENT OF SEIP GOALS

Enhanced Education: The SEIP program was intended to provide practical educational experiences for students and recent college graduates. About half of the award recipients responding to the survey indicated that they had no internship or fellowship program prior to receiving SEIP funding, and 42% of

host organizations responding to the survey indicated that they typically did not host any interns, so the SEIP clearly resulted in new opportunities for students to obtain internships. Likewise, from the perspective of the interns and fellows, the SEIP expanded their education with 80% of student participants responding to the survey reporting that the SEIP did not fulfill a degree requirement, and 64% reporting that they had not previously sought an internship.

Energy-related Activities: Perhaps the most revealing results from the survey regarding the SEIP's energy-related activity target was the host employers' increase in satisfaction with students' energy knowledge over the course of the internship or fellowship. This increase in knowledge was reflected in survey responses from interns and fellows as well, with more than 90% reporting that their internship/fellowship was "effective" or "very effective" at increasing their energy knowledge.

Placements at For-Profit Businesses: While placement of interns and fellows at for-profit businesses was emphasized in the program solicitation, other organization types were also eligible. For-profit businesses represented the largest portion (38%) of host organizations responding to the survey, and more than 57% of award recipients reported placing interns or fellows at for-profit businesses.

Full-time Employment in Energy: The benefit of the SEIP in assisting student participants with finding full-time post-college employment was very apparent with 20% of responding student participants reporting that they already had obtained full-time employment as a result of the SEIP, and another 58% indicating that they felt their participation in the SEIP "definitely" or "probably" would assist them in finding employment. Host employers echoed this sentiment with nearly 20% of those responding to the survey reporting that they had made a job offer following an internship or fellowship – 15% of these hosts reported creating a new position – and another 38% reported that they wanted to make an offer but were unable to at the present time. This work appears to be predominantly energy related, with responding interns and fellows reporting that an average of 88% of their work in these positions would be energy related.

Wide Geographical Coverage: Internship and fellowship placements were located in at least 47 counties across the state, and although there were definite areas of concentration in a few counties the program's impacts were widespread. Among the economically disadvantaged Tier 1 and Tier 2 counties, 70% of Tier 2 and 30% of Tier 1 counties received internship or fellowship placements.

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SEIP Evaluation Report Overview

This evaluation report was undertaken as part of the scope of work of the Appalachian State University Energy Internships and Fellowships Program, under the direction of the State Energy Office. The goal of the study was threefold: (1) to aggregate summative information about the projects funded through the State Energy Internship Program, (2) to assess program outcomes statewide, and (3) to identify lessons learned that can be applied to future internship programs.

Data included in this report were gathered from a variety of sources. Information about the awards made and the overall structure of the program was obtained from documents provided by the State Energy Office. Details about individual program metrics were drawn from their December 2011 quarterly reports, each of which contained cumulative achievements to that date. Most importantly, an online survey was developed and disseminated in late February and early March 2012. Three versions of the survey were developed, one each for the grant awardees, for the host employers, and for the interns/fellows. Although the surveys contained some common questions, many focused specifically on aspects of the projects that were germane to the given group.

The State Energy Office provided contact information from all awardees, who were subsequently contacted by the Appalachian State University team to compile up-to-date contact lists for all host employers and interns/fellows. Invitations to complete the online survey were distributed by email to all groups. Two follow-up reminders were sent out.

A summary version of this report was presented at the 9th annual Sustainable Energy Conference held in Raleigh, North Carolina in April 2012.

SEIP Program Summary

AGGREGATE METRICS

North Carolina’s State Energy Internship & Fellowship Program (SEIP) was a \$9.5 million program with 28 award recipients located in 15 counties and 10 congressional districts. The combined goal for award recipients under the SEIP was to make 557 internship/fellowship placements, and as of December 2011³ recipients had reported 569 internship/fellowship placements—102.2% of the goal. Interns and fellows were placed at more than 242 host organizations and worked in 47 counties across the state.

Aggregate and average performance metrics for the program statewide are shown in Table 1. The average grant award was \$224,898, the equivalent of \$11,067 per internship or fellowship placement. Host organizations received 2.4 interns or fellows on average, and there was an average of 8.6 host organizations involved with each grant-funded project.

Table 1 - Performance Metrics for the SEIP

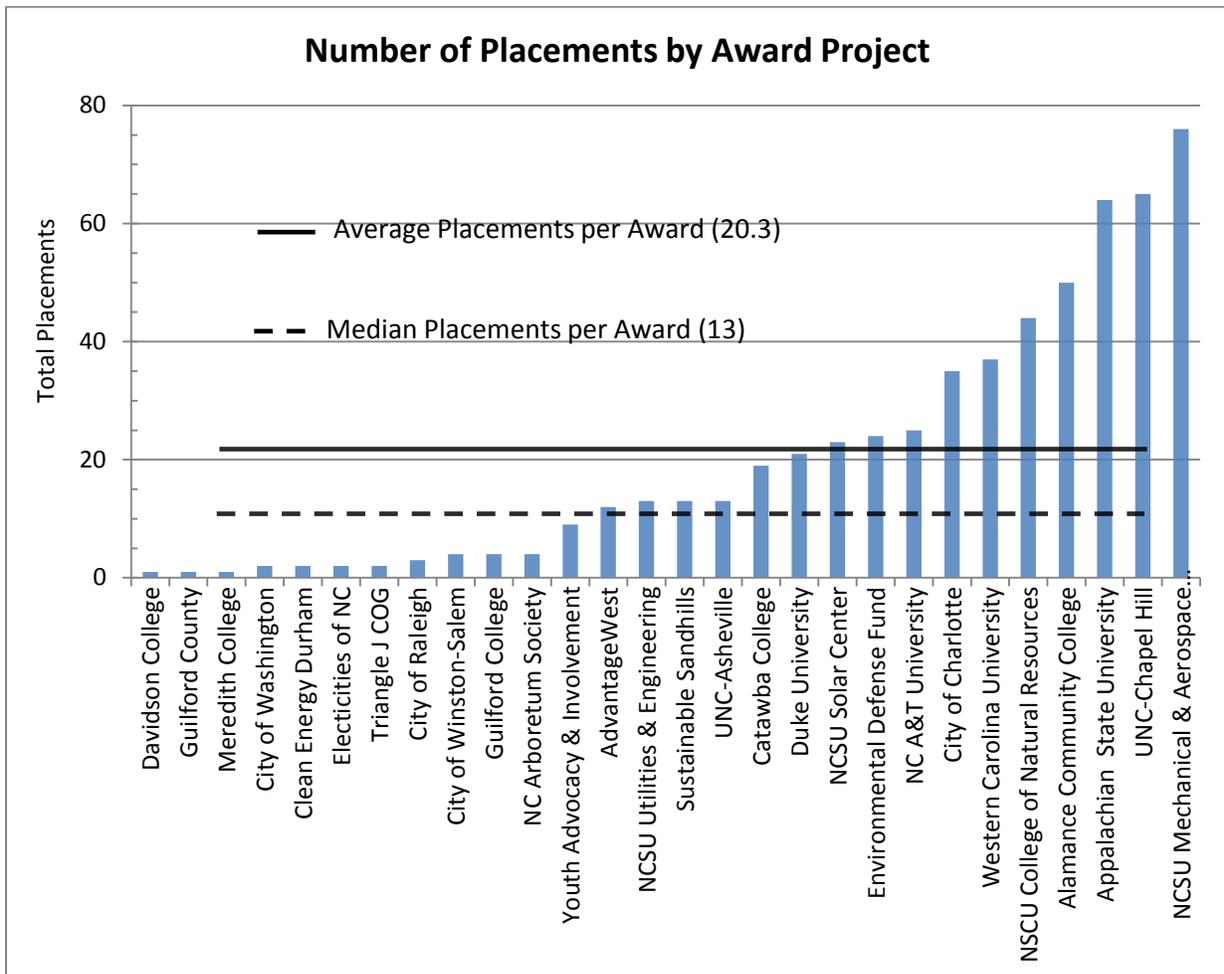
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INTERNSHIP & FELLOWSHIP PLACEMENTS

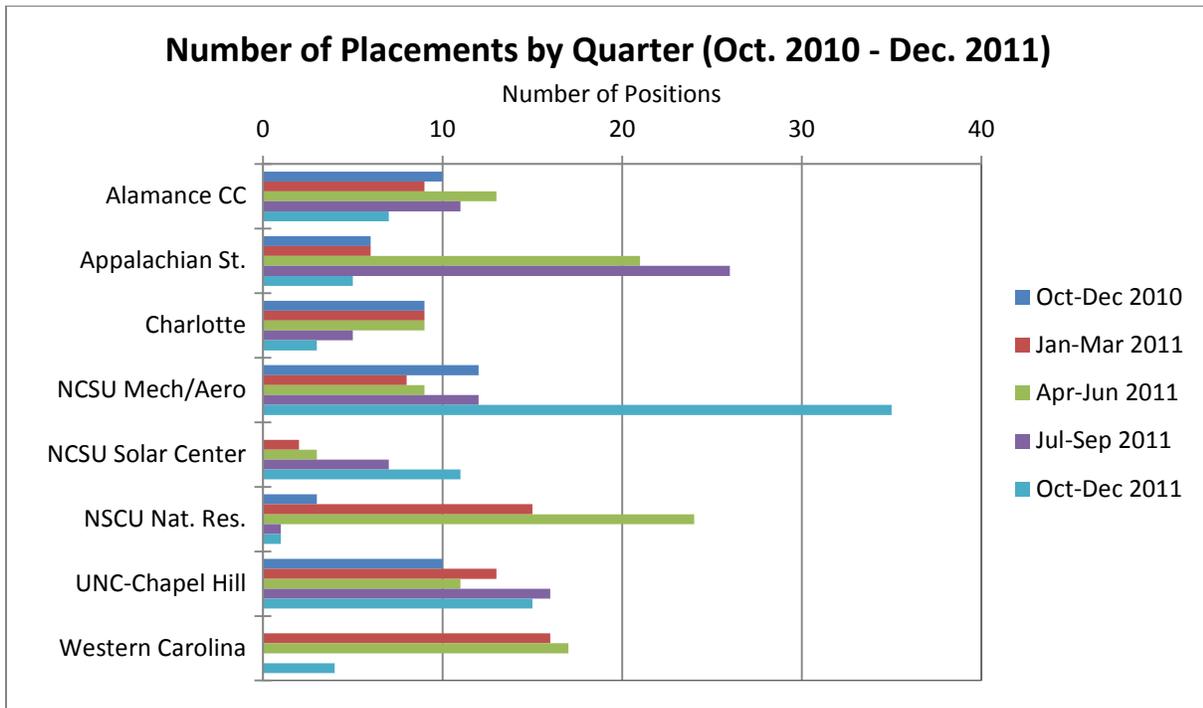
The average number of internship and fellowship placements per grant-funded project was 20.3 and the median number was 13 placements through December 2011. The distribution of internship and fellowship placements, however, was decidedly skewed, with only a handful of projects accounting for a large majority of internship and fellowship placements, as shown in Figure 1.

Figure 1 - Placements by Grant Award Project



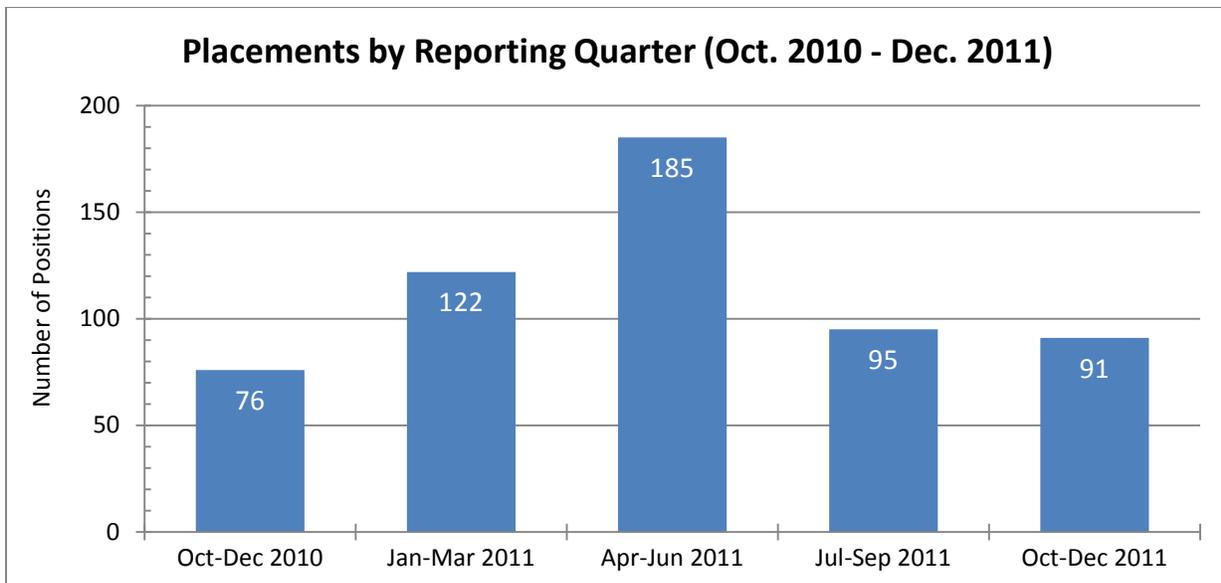
Nearly 70% of all internships and fellowships were attributable to eight award-funded projects. While several grant-funded projects focused their efforts on placing interns and fellows during only one or two reporting quarters, the eight top-performing projects placed interns and fellows on a near-continuous basis from one reporting quarter to the next, as shown in Figure 2.

Figure 2 - Placements by Quarterly Report for Largest Grant Award Projects



Activity in the award projects peaked during the third reporting quarter (April through June 2011) at 185 placements. The SEIP ramped up quickly from its Oct. 2010 start as the number of placements statewide increased by more than 50% per quarter for the first three reporting quarters and then leveled off at just over 90 placements per quarter during the fourth and fifth quarters, as shown in Figure 3.

Figure 3 - Total SEIP Placements Reported by Quarter



GRANT AWARD FUNDING

In addition to \$6.3 million in grant award funding, SEIP projects also contributed nearly \$3.2 million⁴ in matching funds. The average SEIP grant award was about \$224,900 and the median award was about \$212,500. Average total project funding was nearly \$339,150 and median project funding was \$250,800. The average matching funds contribution was 50.8¢ per dollar of grant funding, while the median contribution of matching funds was 26.4¢ per dollar of grant funding.

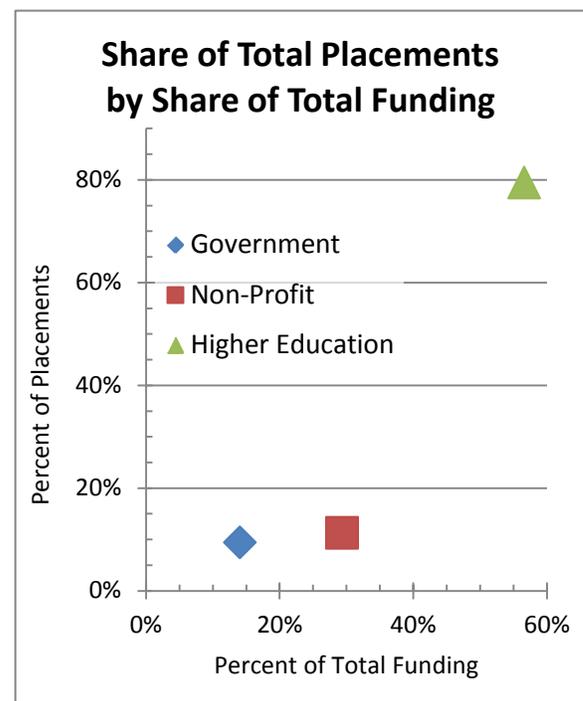
After excluding one anomalous project which contributed more than 42% of total matching funds (see footnote #3), the average grant award was \$215,480, the median grant award was \$208,030, and the standard deviation of grant award amounts was \$159,535. After adjustment, about 31.6¢ per dollar of grant funding was contributed on average and the median matching contribution was 26.3¢ per dollar of grant funding. The adjusted average total project funding was \$283,460, median total project funding was \$236,230, and the standard deviation of total project funding was \$209,580.

Higher education organizations received nearly 70% of grant funds awarded, while government⁵ organizations received about 12% and non-profit organizations received about 18% of grant funds awarded. Government organizations contributed 17.5% of all matching funds (72.5¢ per grant dollar), higher education organizations contributed about 31% of matching funds (22.7¢ per grant dollar), and non-profit organizations contributed more than 51% of matching funds (\$1.44 per grant dollar).

After adjusting funding amounts for the anomalous matching fund contribution, the share of matching funds contributed by non-profit organizations declined substantially from 51% to only 15.4% while the share of matching funds contributed by higher education and government organizations increased to 54% and 30.5%, respectively.

Overall, as expected from a program for college students and recent graduates, higher education organizations represented well over half of total project funding and accounted for nearly 80% of all internship and fellowship placements, as shown in Figure 4. Government and non-profit organizations accounted for about 9% and 11% of placements and received 14% and 29% of total project funding, respectively.

Figure 4 - Share of Placements and Share of Funding by Grant Awardee Category



⁴ A single project (Advantage West) contributed 42.6% of all matching funds, or \$1,363,452 out of the total matching fund contribution of \$3,199,004.

⁵ Government organizations include only local and state entities, excluding state-run colleges and universities. Councils of government and economic development partnerships are considered non-profit organizations.

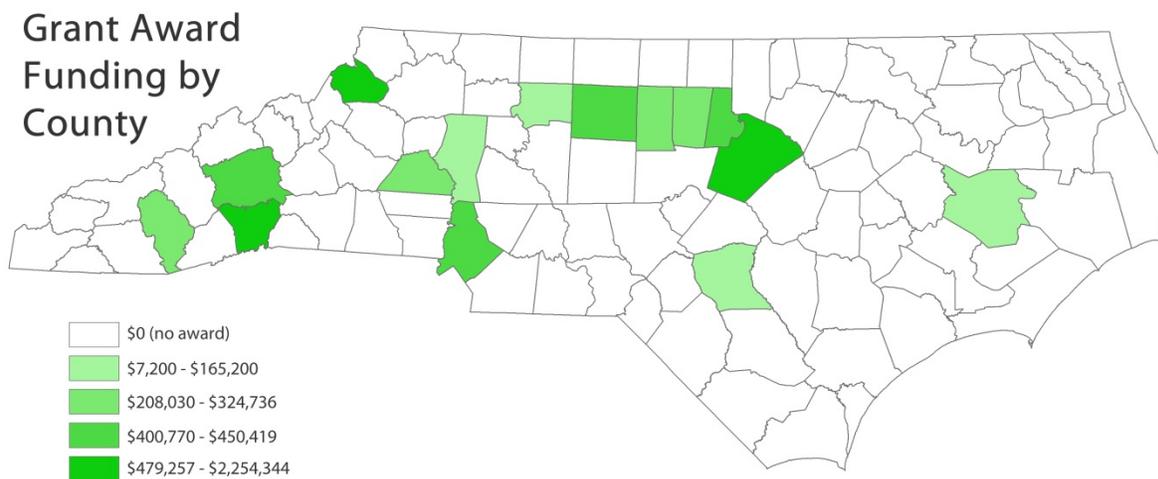
PROGRAM ACTIVITY BY LOCATION

The 28 grant awards were made to organizations located in 15 counties, mostly in the state's urban crescent. The total amount of grant award funding received by organizations located in each county varied widely, ranging from a \$7,200 award made to Davidson College in Iredell County, to the single largest award of \$485,859 made to Appalachian State University in Watauga County.

Multiple organizations located in Durham, Guilford, and Wake counties received awards. In particular, 10 of the 28 organizations receiving awards were located in Wake County, and the four of these awards that went to divisions of North Carolina State University totaled nearly \$1.75 million in grant award funding, or about 28% of all grant award funding.

The total amount of grant award funding (not including matching fund contributions) received by organizations in each county is shown in Figure 5. The top grant award fund recipient counties were Henderson (Advantage West), Watauga (Appalachian State University), and Wake County.

Figure 5 - Grant Award Funding by County of Recipient

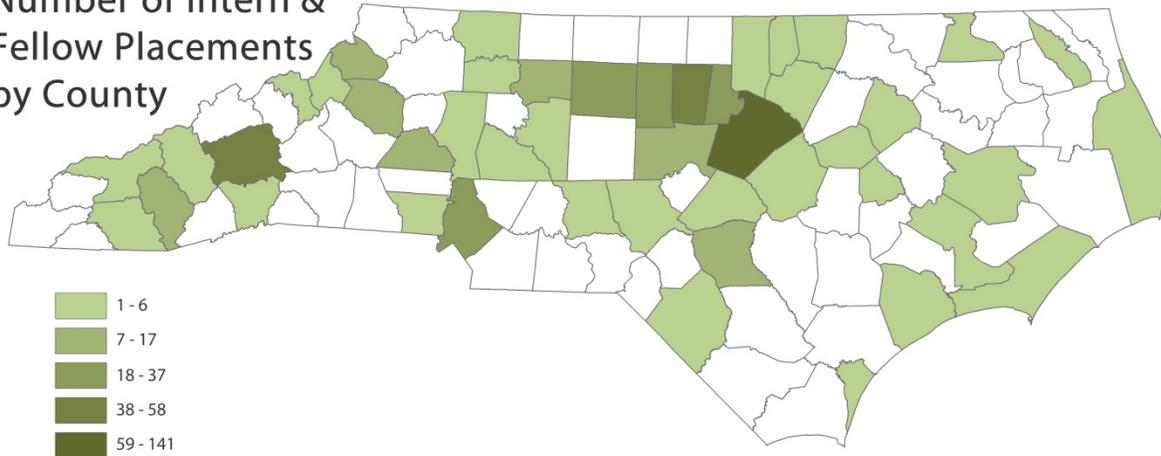


While awards were made to organizations located in 15 counties, the program's direct impacts were experienced much farther afield as interns and fellows were put to work in at least 47 counties. Figure 6 demonstrates the reach of the program impact, showing the number of internship and fellowship placements by county. Although every county that was home to an organization that received grant award funding also received internship or fellowship placements, more than two counties benefitted from the program for every county in which an award was made.

Although there was a definite relationship between the number of interns or fellows placed in a county and the existence and value of grant award funding in the county, there was also a clear disbursement of program activities. In particular, the placement of interns and fellows expanded the reach of program impacts from the grant award recipients located largely in urban areas of the state to the many more far-flung rural areas of the state, particularly in the east.

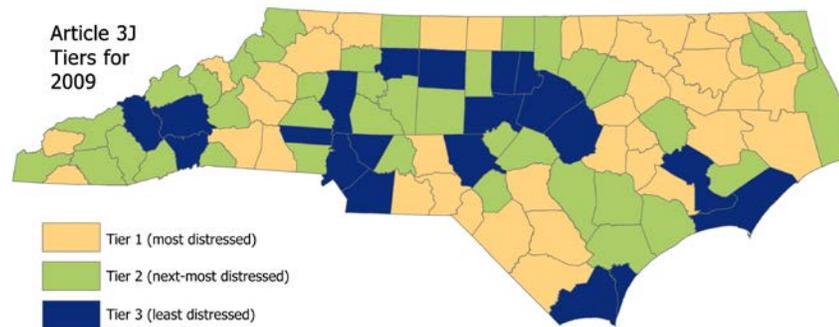
Figure 6 - Number of Interns & Fellows Placements by County

Number of Intern & Fellow Placements by County



Host organizations in Wake County received the largest number of intern/fellow placements with 141. Orange County received 58 placements, Buncombe County received 46, followed by Guilford with 37, and Mecklenburg with 32. The distribution of internship and fellowship placements can be attributed partly to grant-funded projects with a large portion of intern/fellow placements made internally (i.e., placement in positions at the organization receiving the award), and the presence of companies or other host organizations within a particular county. The latter factor, in particular, tended to favor urban areas from a purely numerical perspective, since these areas typically are home to a larger number of businesses.

Figure 7 - 3J Tier Designations (2009)



The SEIP encouraged projects to place interns and fellows with host employers in the more economically distressed Tier 1 and Tier 2 counties. Comparing the 3J Tier designations shown in Figure 7 with the placement of interns and fellows shown in Figure 6 reveals that 70% of the highest tier (Tier 3) counties received employees from the SEIP. Interns or fellows were placed in 12 of 40 (30%) Tier 1-designated counties, as well as 28 of 40 (70%) Tier 2-designated counties.

INTERNSHIP & FELLOWSHIP AWARD PROJECTS

This section presents basic information about grant award recipients' projects, starting with the project funding amounts shown in Table 2. Due to the variety of approaches to internship projects, there is no

single quantitative metric that can accurately be used to represent or compare project activities and outcomes. Grant funding, for instance, was mostly used to provide stipends for interns and fellows, but in some projects host employers also contributed funds to compensate interns and hosts. Some projects also required the purchase of specialized equipment for energy audits or other tasks, while positions in other projects may have incurred considerable travel expenses. Other variations that limited the comparability among projects in terms of outcome attainment and other performance measures included the pay rate of interns and fellows (i.e., between \$10 and \$25 per hour) and the duration of internships and fellowships.

Some SEIP projects with notable metrics include:

- Appalachian State University received the largest grant award of \$485,859.
- Advantage West made the largest matching contribution at \$1.36 million.
- With 70 interns, UNC-Chapel Hill had the most placement activity.
- North Carolina State University’s College of Natural Resources had the most geographically-diverse activity by placing interns and fellows in 17 counties.

Table 2 - Grant Award Recipients

Award Recipient	Funding Amount		
	Grant	Matching	Project Total
AdvantageWest	\$479,257	\$1,363,452	\$1,842,709
Alamance Community College	\$270,038	\$98,964	\$369,002
Appalachian State University	\$485,859	\$121,125	\$606,984
Catawba College	\$208,030	\$57,330	\$265,360
City of Charlotte	\$425,359	\$345,753	\$771,112
City of Raleigh	\$104,864	\$61,452	\$166,316
City of Washington	\$30,000	\$19,960	\$49,960
City of Winston-Salem	\$115,085	\$111,200	\$226,285
Clean Energy Durham	\$85,945	\$74,159	\$160,104
Davidson College	\$7,200	\$0	\$7,200
Duke University	\$345,239	\$23,694	\$368,933
Electricities of NC	\$16,320	\$25,090	\$41,410
Environmental Defense Fund	\$269,209	\$94,908	\$364,117
Guilford College	\$216,927	\$19,300	\$236,227
Guilford County	\$54,423	\$8,761	\$63,184
Meredith College	\$37,307	\$29,038	\$66,345
NC A&T University	\$179,069	\$17,250	\$196,319
NC Arboretum Society	\$89,600	\$6,990	\$96,590
NCSU Mechanical & Aerospace Engineering	\$464,801	\$134,640	\$599,441
NCSU Solar Center	\$435,481	\$65,731	\$501,212
NCSU Utilities & Engineering	\$373,469	\$22,500	\$395,969
NCSU College of Natural Resources	\$475,488	\$118,000	\$593,488

Sustainable Sandhills	\$165,200	\$54,800	\$220,000
Triangle J COG	\$33,838	\$26,094	\$59,932
UNC-Asheville	\$311,170	\$125,644	\$436,814
UNC-Chapel Hill	\$324,736	\$134,911	\$459,647
Western Carolina University	\$249,572	\$25,058	\$274,631
Youth Advocacy & Involvement	\$43,657	\$13,200	\$56,857

Project Profiles

The brief profile of individual projects provided below, organized alphabetically, includes information such as the location of the grant award recipient, the amount of project funding and matching contribution, and numbers of interns and fellows, host organizations and counties impacted. All numbers in the following profiles reflect activity reported through December 2011—about 85% of the program’s duration—and thus may not represent total activity for the project.

AdvantageWest

AdvantageWest, a non-profit organization located in Henderson County and Congressional District 11, implemented a SEIP project with total funding of \$1,842,709, including a matching fund contribution of \$2.845 per grant award dollar. The project placed 12 students and recent graduates as interns or fellows at 12 host organizations and impacted four counties within the state.

Alamance Community College

Alamance Community College, a higher education organization located in Alamance County and Congressional District 6, implemented a SEIP project with total funding of \$369,002, including a matching fund contribution of \$0.366 per grant award dollar. The project placed 44 students and recent graduates as interns or fellows at 30 host organizations and impacted 5 counties within the state.

Appalachian State University

Appalachian State University, a higher education organization located in Watauga County and Congressional District 5, implemented a SEIP project with total funding of \$606,984, including a matching fund contribution of \$0.249 per grant award dollar. The project placed 38 students and recent graduates as interns or fellows at 20 host organizations and impacted 9 counties within the state.

Catawba College

Catawba College, a higher education organization located in Catawba County and Congressional District 12, implemented a SEIP project with total funding of \$265,360, including a matching fund contribution of \$0.276 per grant award dollar. The project placed 12 students and recent graduates as interns or fellows at 9 host organizations and impacted 3 counties within the state.

City of Charlotte

City of Charlotte, a government organization located in Mecklenburg County and Congressional District 12, implemented a SEIP project with total funding of \$771,112, including a matching fund contribution

of \$0.813 per grant award dollar. The project placed 18 students and recent graduates as interns or fellows at 4 host organizations and impacted 1 county within the state.

City of Raleigh

City of Raleigh, a government organization located in Wake County and Congressional District 2, implemented a SEIP project with total funding of \$166,316, including a matching fund contribution of \$0.586 per grant award dollar. The project placed 2 students and recent graduates as interns or fellows at 1 host organizations and impacted 1 county within the state.

City of Washington

City of Washington, a government organization located in Beaufort County and Congressional District 1, implemented a SEIP project with total funding of \$49,960, including a matching fund contribution of \$0.665 per grant award dollar. The project placed 2 students and recent graduates as interns or fellows at 1 host organizations and impacted 1 county within the state.

City of Winston-Salem

City of Winston-Salem, a government organization located in Forsyth County and Congressional District 12, implemented a SEIP project with total funding of \$226,285, including a matching fund contribution of \$0.966 per grant award dollar. The project placed 8 students and recent graduates as interns or fellows at 2 host organizations and impacted 1 county within the state.

Clean Energy Durham

Clean Energy Durham, a non-profit organization located in Durham County and Congressional District 4, implemented a SEIP project with total funding of \$160,104, including a matching fund contribution of \$0.863 per grant award dollar. The project placed 1 student and recent graduate as intern or fellow at 1 host organizations and impacted 1 county within the state.

Davidson College

Davidson College, a higher education organization located in Iredell County and Congressional District 12, implemented a SEIP project with total funding of \$7,200, including a matching fund contribution of \$0 per grant award dollar. The project placed 1 student and recent graduate as intern or fellow at 1 host organizations and impacted 2 counties within the state.

Duke University

Duke University, a higher education organization located in Durham County and Congressional District 4, implemented a SEIP project with total funding of \$368,933, including a matching fund contribution of \$0.069 per grant award dollar. The project placed 23 students and recent graduates as interns or fellows at 15 host organizations and impacted 9 counties within the state.

Electricities of NC

Electricities of NC, a non-profit organization located in Wake County and Congressional District 13, implemented a SEIP project with total funding of \$41,410, including a matching fund contribution of

\$1.537 per grant award dollar. The project placed 2 students and recent graduates as interns or fellows at 1 host organizations and impacted 1 county within the state.

Environmental Defense Fund

Environmental Defense Fund, a non-profit organization located in Wake County and Congressional District 14, implemented a SEIP project with total funding of \$364,117, including a matching fund contribution of \$0.353 per grant award dollar. The project placed 25 students and recent graduates as interns or fellows at 17 host organizations and impacted 13 counties within the state.

Guilford College

Guilford College, a higher education organization located in Guilford County and Congressional District 6, implemented a SEIP project with total funding of \$236,227, including a matching fund contribution of \$0.089 per grant award dollar. The project placed 7 students and recent graduates as interns or fellows at 1 host organizations and impacted 1 county within the state.

Guilford County

Guilford County, a government organization located in Guilford County and Congressional District 12, implemented a SEIP project with total funding of \$63,184, including a matching fund contribution of \$0.161 per grant award dollar. The project placed 1 student and recent graduate as intern or fellow at 1 host organizations and impacted 1 county within the state.

Meredith College

Meredith College, a higher education organization located in Wake County and Congressional District 13, implemented a SEIP project with total funding of \$66,345, including a matching fund contribution of \$0.778 per grant award dollar. The project placed 1 student and recent graduate as intern or fellow at 1 host organizations and impacted 1 county within the state.

NC A&T University

NC A&T University, a higher education organization located in Guilford County and Congressional District 12, implemented a SEIP project with total funding of \$196,319, including a matching fund contribution of \$0.096 per grant award dollar. The project placed 25 students and recent graduates as interns or fellows at 10 host organizations and impacted 2 counties within the state.

NC Arboretum Society

NC Arboretum Society, a non-profit organization located in Buncombe County and Congressional District 11, implemented a SEIP project with total funding of \$96,590, including a matching fund contribution of \$0.078 per grant award dollar. The project placed 4 students and recent graduates as interns or fellows at 1 host organizations and impacted 1 county within the state.

NCSU Mechanical & Aerospace Engineering

NCSU Mechanical & Aerospace Engineering, a higher education organization located in Wake County and Congressional District 4, implemented a SEIP project with total funding of \$599,441, including a

matching fund contribution of \$0.29 per grant award dollar. The project placed 64 students and recent graduates as interns or fellows at 21 host organizations and impacted 4 counties within the state.

NCSU Solar Center

NCSU Solar Center, a higher education organization located in Wake County and Congressional District 4, implemented a SEIP project with total funding of \$501,212, including a matching fund contribution of \$0.151 per grant award dollar. The project placed 16 students and recent graduates as interns or fellows at 3 host organizations and impacted 3 counties within the state.

NCSU Utilities & Engineering

NCSU Utilities & Engineering, a higher education organization located in Wake County and Congressional District 4, implemented a SEIP project with total funding of \$395,969, including a matching fund contribution of \$0.06 per grant award dollar. The project placed 10 students and recent graduates as interns or fellows at 5 host organizations and impacted 1 county within the state.

NCSU College of Natural Resources

NCSU College of Natural Resources, a higher education organization located in Wake County and Congressional District 4, implemented a SEIP project with total funding of \$593,488, including a matching fund contribution of \$0.248 per grant award dollar. The project placed 51 students and recent graduates as interns or fellows at 31 host organizations and impacted 17 counties within the state.

Sustainable Sandhills

Sustainable Sandhills, a non-profit organization located in Cumberland County and Congressional District 2, implemented a SEIP project with total funding of \$220,000, including a matching fund contribution of \$0.332 per grant award dollar. The project placed 13 students and recent graduates as interns or fellows at 6 host organizations and impacted 3 counties within the state.

Triangle J COG

Triangle J COG, a non-profit organization located in Wake County and Congressional District 4, implemented a SEIP project with total funding of \$59,932, including a matching fund contribution of \$0.771 per grant award dollar. The project placed 2 students and recent graduates as interns or fellows at 1 host organizations and impacted 1 county within the state.

UNC-Asheville

UNC-Asheville, a higher education organization located in Buncombe County and Congressional District 11, implemented a SEIP project with total funding of \$436,813, including a matching fund contribution of \$0.404 per grant award dollar. The project placed 23 students and recent graduates as interns or fellows at 4 host organizations and impacted 1 county within the state.

UNC-Chapel Hill

UNC-Chapel Hill, a higher education organization located in Orange County and Congressional District 23, implemented a SEIP project with total funding of \$459,647, including a matching fund contribution

of \$0.415 per grant award dollar. The project placed 70 students and recent graduates as interns or fellows at 23 host organizations and impacted 8 counties within the state.

Western Carolina University

Western Carolina University, a higher education organization located in Jackson County and Congressional District 11, implemented a SEIP project with total funding of \$274,630, including a matching fund contribution of \$0.100 per grant award dollar. The project placed 32 students and recent graduates as interns or fellows at 17 host organizations and impacted 9 counties within the state.

Youth Advocacy & Involvement

Youth Advocacy & Involvement, a government organization located in Wake County and Congressional District 2, implemented a SEIP project with total funding of \$56,857, including a matching fund contribution of \$0.302 per grant award dollar. The project placed 18 students and recent graduates as interns or fellows at 3 host organizations and impacted 1 county within the state.

Participant Evaluation Survey

As part of the program evaluation, a survey of participants was conducted in an effort to quantify both participant experiences and the program’s overall efficacy in serving its intended purpose. The survey also provided an opportunity for award recipients, interns and fellows, and host organizations to provide direct qualitative feedback on a variety of topics related to the program.

SURVEY ADMINISTRATION

Methodology

The survey instrument was developed by researchers at the Appalachian Energy Center (Appalachian State University) and was reviewed by faculty at Appalachian State University and members of the N.C. Department of Commerce’s State Energy Office. The survey was administered via the Internet using Qualtrics survey software.

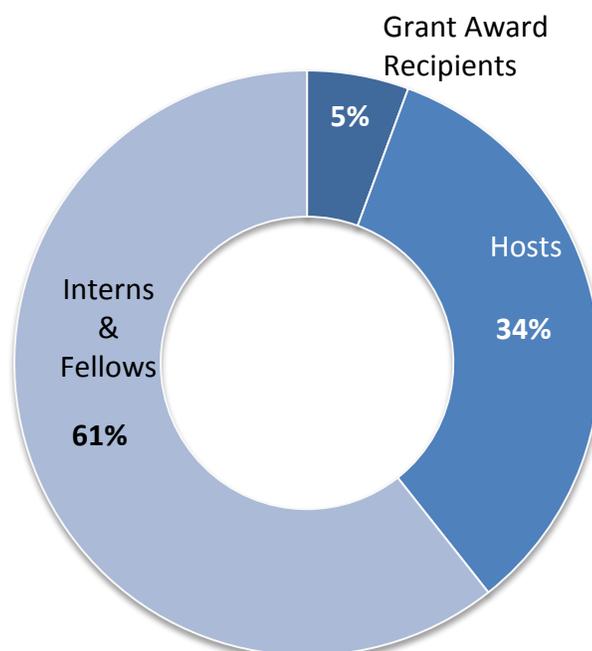
Invitations were sent electronically via email to individual program participants from a list provided through the State Energy Office at the start of the survey and up to two reminders (about one per week) were automatically sent out to those individuals who had not completed the survey unless they opted to discontinue receiving reminders.

The online survey instrument was active from Friday, February 24, 2012 through Tuesday, March 20, 2012. Using design features of the survey software respondents were allowed to travel backwards using a “back button” to modify previous responses, stop partway through taking the survey and continue at a later date/time. The survey was administered with open access (i.e., no password or custom link required) although measures were implemented to both prevent the survey being taken more than one

time by the same respondent and to prevent responses from individuals who did not participate in the internship program. Respondents were not prevented from skipping an item in the survey instrument, although some questions did specifically request a voluntary response when the respondent attempted to skip past.

All respondents were provided the same survey instrument, although the instrument contained groups of questions that were only presented to one type of program participant. There were 67 total questions on the survey, of which 12 were asked of all

Figure 8 - Percent of Survey Invitations



respondents, an additional 19 were asked only of individuals receiving grant award funds, 16 were specific to interns and fellows, and 20 were specific to organizations hosting interns or fellows. Questions specific to each participant group were filtered based on the respondent's self-reported participation role provided in response to the first question.

Response Rate & Completion

From the 818 survey invitations emailed, 358 (43.7%) surveys were started and 294 (35.9%) were completed. As shown in Figure 8, Interns and fellows received 496 (61%) of the invitations, organizations hosting interns and fellows received 276 (34%) of the invitations, and 46 individuals at organizations receiving grant awards received 5% of the invitations.

Out of the 46 grant award recipients receiving invitations, 54.3% did not respond, 41.3% completed the survey and the remaining 4.3% partially completed the survey. Only 33% of the 276 invitations sent to host organizations resulted in a completed survey, while 57.2% of these invitations received no response, 8% resulted in a partially complete survey, and an additional 1.8% either opted out or had their survey session expire. From the 496 invitations sent to interns and fellows, 37.1% resulted in a completed survey, 6.9% partially completed the survey, 1.4% either opted out or had their survey session expire, and 54.6% of invitations received no response.

To determine a representative survey completion time, the reported completion time for responses with a reported completion time of 1 minute or less and of more than 2 hours are excluded. The remaining responses had an average completion time of 14.13 minutes and a median completion time of 9 minutes.

OVERALL RESULTS

Survey respondents can be categorized into one of three groups based on the manner in which they participated in the SEIP: interns and fellows, grant awardee (recipient), or host organization with which interns or fellows were placed. While each participant group was asked a set of questions unique to their respective group, some questions were asked of respondents in all groups. This section presents the results of responses to questions asked of all survey respondents, including total response rates as well as a breakout of responses by participant group.

Responses by Participant Type & Location

The first question of the survey asked respondents to self-select the participant group to which they belong. Two-thirds of the 341 responses indicated the survey taker had participated as an intern or fellow, and host organizations represented 26% of responses while grant award recipients provided 7% of the responses, as shown in Figure 9.

Respondents were also asked to indicate the region of the state in which they were located. Nearly half of responses were from people located in the Triangle region, 21% were located in the Western region, 18% in the Triad, 7% from the Charlotte region, and 5% from the Eastern region, as shown in Figure 10.

Figure 9 - Percent of Responses by Respondent Group

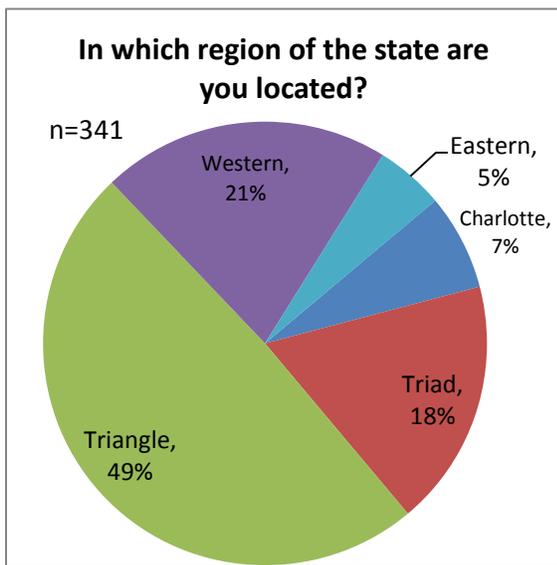
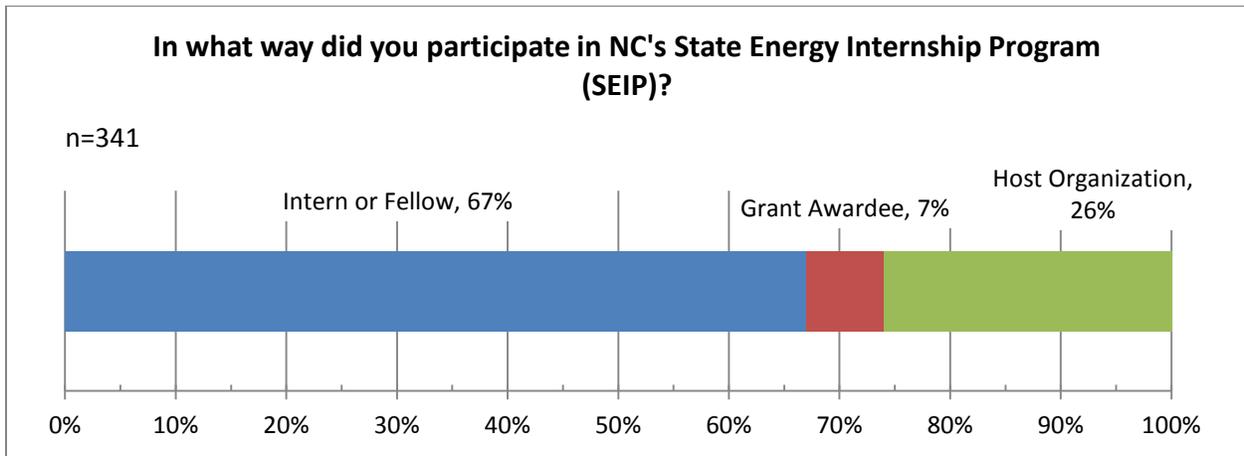


Figure 10 - Responses by Location

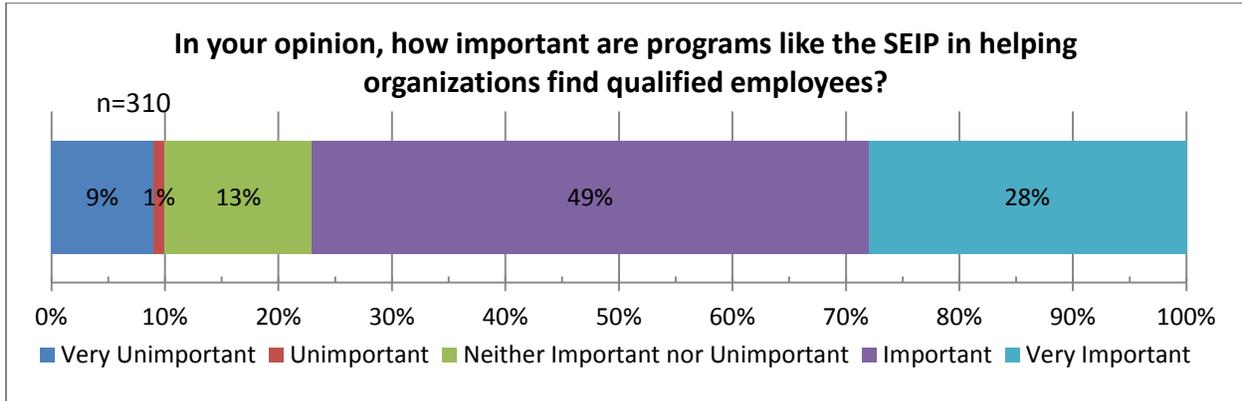
In which region of the state are you located?					
	Charl.	Triad	Trian.	West.	East.
Combined Total	7%	18%	49%	21%	5%
Award Recipients	0%	24%	56%	12%	8%
Interns & Fellows	8%	17%	49%	23%	3%
Host Org.	6%	18%	48%	21%	7%

Effectiveness of the SEIP

A statewide program intended to provide college students recent graduates with work experience offers a dual opportunity: to facilitate the entry of college graduates into the workforce, and to provide employers a low-risk opportunity to evaluate potential employees. Given that green energy-related markets and businesses have recently begun experiencing rapid market growth, it is natural that the demand for workers with skills, knowledge, and experience in the green energy segment will likely outpace the supply.

Overall, 77% of survey respondents rated the SEIP as either “important” or “very important” in helping organizations find qualified employees, and an additional 13% of respondents were neutral. Somewhat notably, 9% of responses indicated that the program was “very unimportant” in helping organizations find qualified employees, and among host organization responses 16% rated the program as “very unimportant.”

Figure 11 - Importance in Finding Qualified Employees

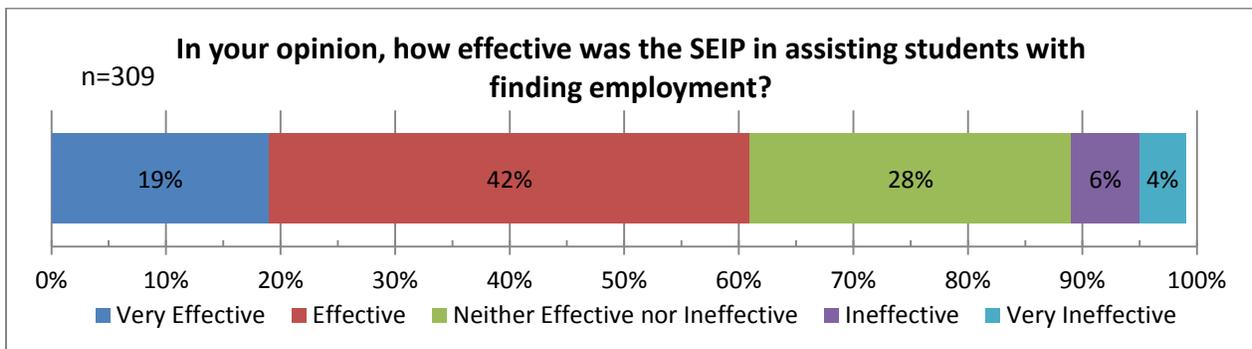


In your opinion, how important are programs like the SEIP in helping organizations find qualified employees?

	Very Unimportant	Unimportant	Neither Important nor Unimportant	Important	Very Important
Combined Total	9%	1%	13%	49%	28%
Award Recipients	14%	5%	14%	33%	33%
Interns & Fellows	6%	1%	12%	50%	32%
Host Organization	16%	1%	14%	53%	15%

On the other hand, 61% of respondents rated the SEIP as either “effective” or “very effective” in assisting students with finding employment. The 10% of responses indicating the program was “ineffective” or “very ineffective” were mostly from respondents who participated in the program as an intern or fellow, and 28% of responses were neutral on the question.

Figure 12 - Effectiveness in Assisting Students Find Employment

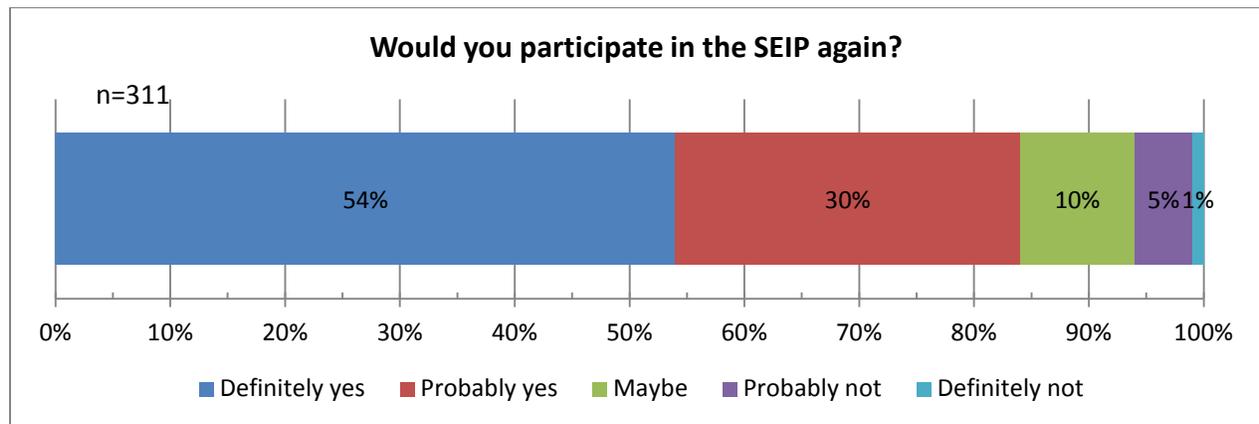


In your opinion, how effective was the SEIP in assisting students with finding employment?

	Very Effective	Effective	Neither Effective nor Ineffective	Ineffective	Very Ineffective
Combined Total	19%	42%	28%	6%	4%
Award Recipients	24%	43%	19%	14%	0%
Interns & Fellows	16%	41%	29%	7%	6%
Host Organization	26%	45%	27%	3%	0%

When participants were asked whether they would participate in the program again, the response was overwhelmingly positive with 54% responding “definitely yes” and an additional 30% responding “probably yes.” Only 6% of respondents indicated they would “probably” or “definitely” not participate again. The only participant category with any responses indicating they would “definitely not” participate again were interns and fellows, while the most positive responses to this question were from the organizations that hosted students – 94% responded that they would “definitely” or “probably” participate again.

Figure 13 - Would You Participate in the SEIP Again?



Would you participate in the SEIP again?

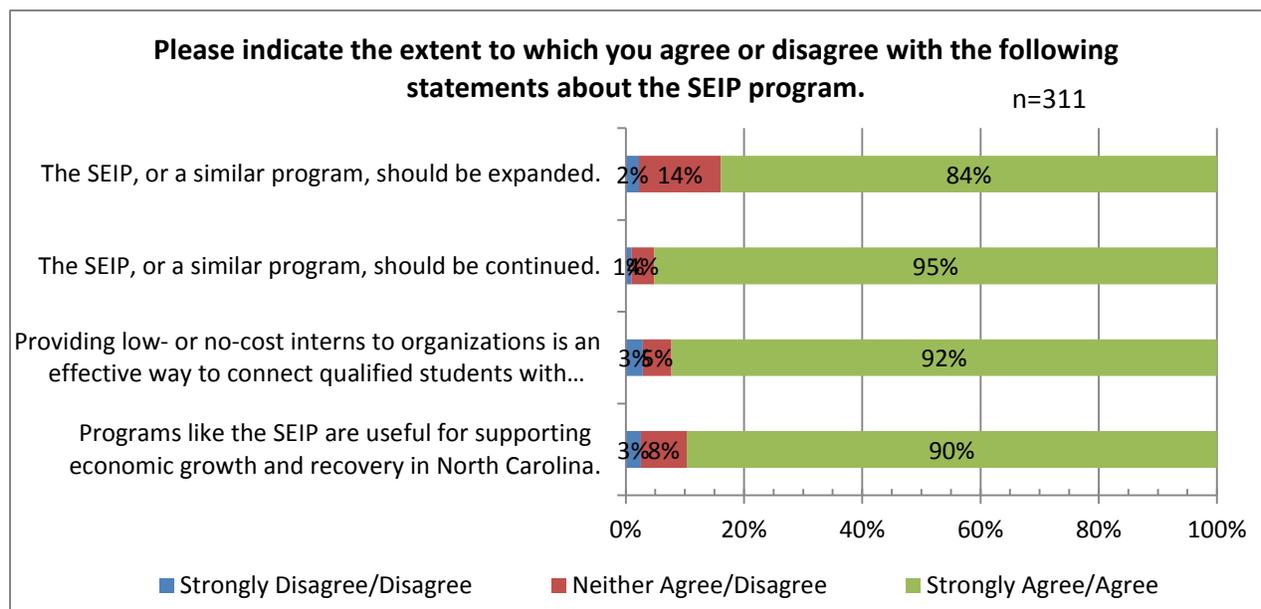
	Definitely yes	Probably yes	Maybe	Probably not	Definitely not
Combined Total	54%	30%	10%	5%	1%
Award Recipients	62%	14%	19%	5%	0%
Interns & Fellows	50%	30%	12%	6%	1%
Host Organization	62%	32%	4%	3%	0%

Future Prospects for the SEIP

Respondents were asked to indicate their agreement or disagreement with several statements about the SEIP. The statement “The SEIP, or a similar program, should be continued” received the most resounding agreement with two-thirds of all respondents from every participant group indicating they “strongly agree” and 95% of all responses were either “agree or “strongly agree.” Likewise, 92% of all respondents indicated agreement with the statement that “Providing low- or no-cost interns to organizations is an effective was to connect qualified students with potential employers,” including 99% of responses from host organizations.

More respondents were neutral in regard to whether the SEIP or a similar program should be expanded than to any other statement. The participant group with the highest percent of neutral or “strongly disagree” was the recipients of grant awards, 10% of whom “strongly disagree” that the program should be expanded and 29% of whom were neutral about an expanded program.

Figure 14 - Opinion Statements About the Program



Please indicate the extent to which you agree or disagree with the following statements about the SEIP program.

Programs like the SEIP are useful for supporting economic growth and recovery in North Carolina.

	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
Combined Total	1%	2%	8%	47%	43%
Award Recipients	5%	0%	14%	33%	48%
Interns & Fellows	0%	2%	6%	47%	45%
Host Organization	1%	1%	10%	49%	38%

Providing low- or no-cost interns to organizations is an effective way to connect qualified students with potential employers.

	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
Combined Total	1%	2%	5%	38%	55%
Award Recipients	5%	0%	5%	19%	71%
Interns & Fellows	0%	3%	7%	38%	52%
Host Organization	1%	0%	0%	41%	58%

The SEIP, or a similar program, should be continued.

	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
Combined Total	1%	0%	4%	28%	67%
Award Recipients	5%	0%	10%	19%	67%
Interns & Fellows	0%	0%	4%	28%	68%
Host Organization	1%	0%	3%	30%	66%

The SEIP, or a similar program, should be expanded.

	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
Combined Total	1%	1%	14%	27%	57%
Award Recipients	10%	0%	29%	14%	48%
Interns & Fellows	0%	1%	11%	28%	59%
Host Organization	1%	1%	16%	28%	53%

When asked their opinion about sources of future funding for the program, the top three funding sources selected by survey respondents were “outside funding” (by 79% of respondents), “state budget” (by 72%), and “participating businesses” (by 68%).

In ranking potential sources of funding in order of preference, respondents overall gave the State budget the highest preference and the federal budget the next highest preference. Although funding for the current program originated in the federal budget, with individual project awards administered through the state, the extent to which respondents were informed of the origin of SEIP program funds was neither mentioned in the survey nor the subject of a survey question.

Figure 15 - Funding Sources for Continuing the SEIP

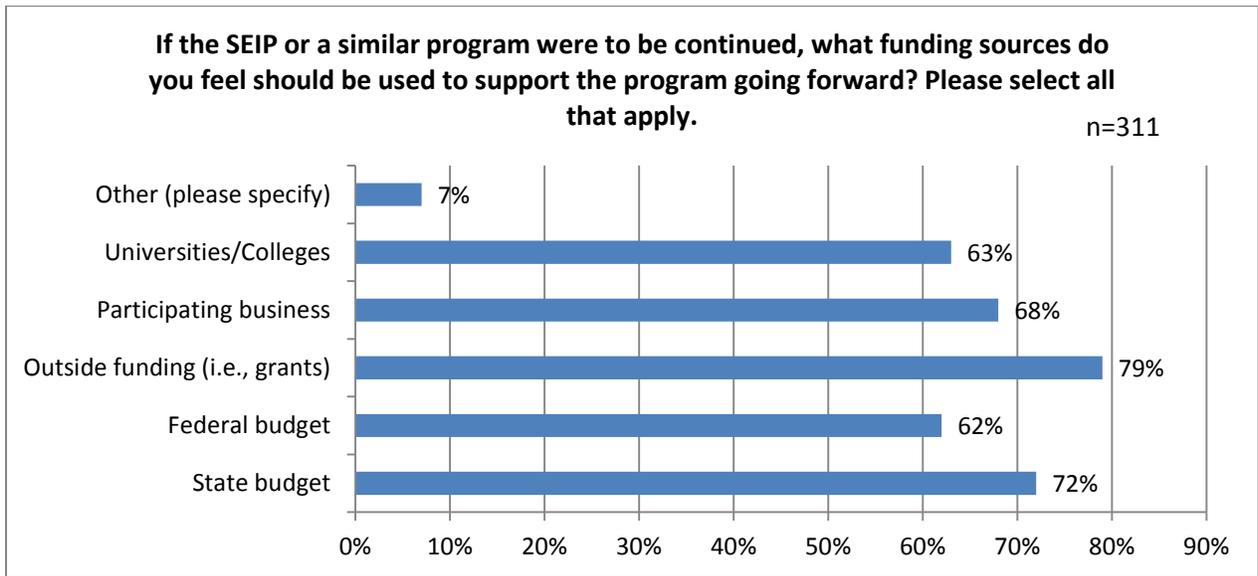
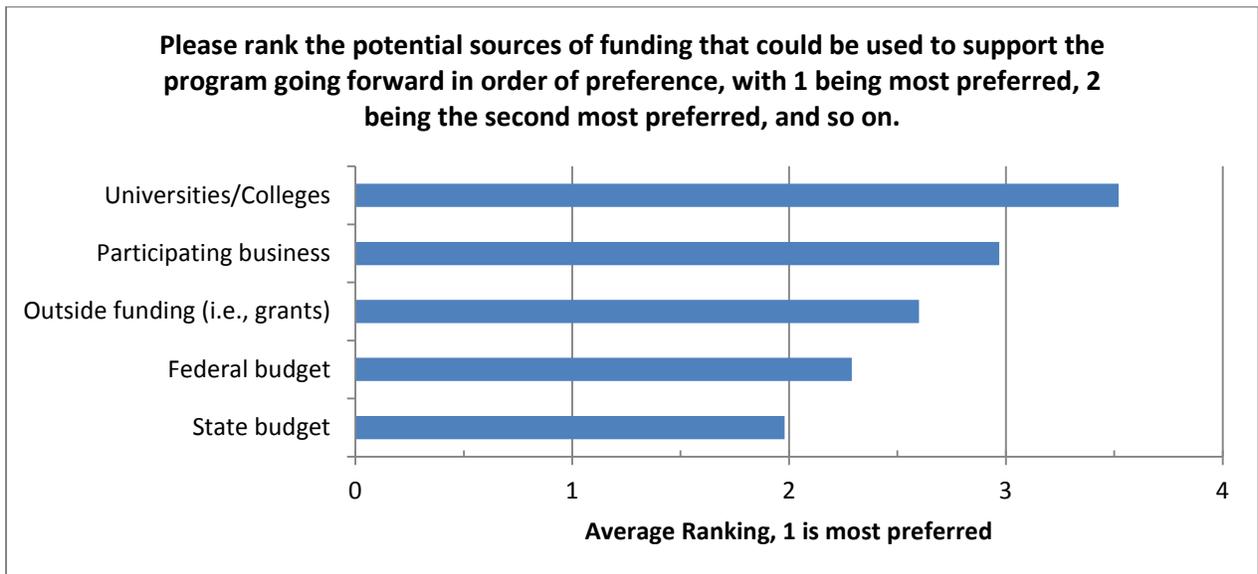
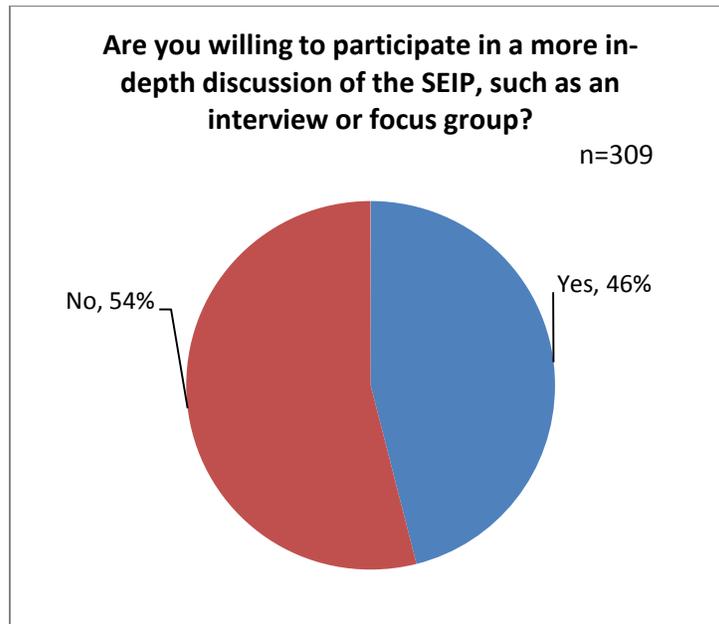


Figure 16 - Funding Sources by Preference Ranking



A slight majority (54%) of survey respondents indicated they were willing to participate in follow-up interviews or focus groups. Among participant groups, only 40% of students indicated they would participate in additional evaluation activities, while 60% of host organizations responded in the affirmative. However, the only formal follow-up activity occurred at a regional energy conference hosted by Appalachian State University, where focus groups that included interns, fellows, and host employers were conducted.

Figure 17 - Willingness to Participate in Additional Evaluation Activities



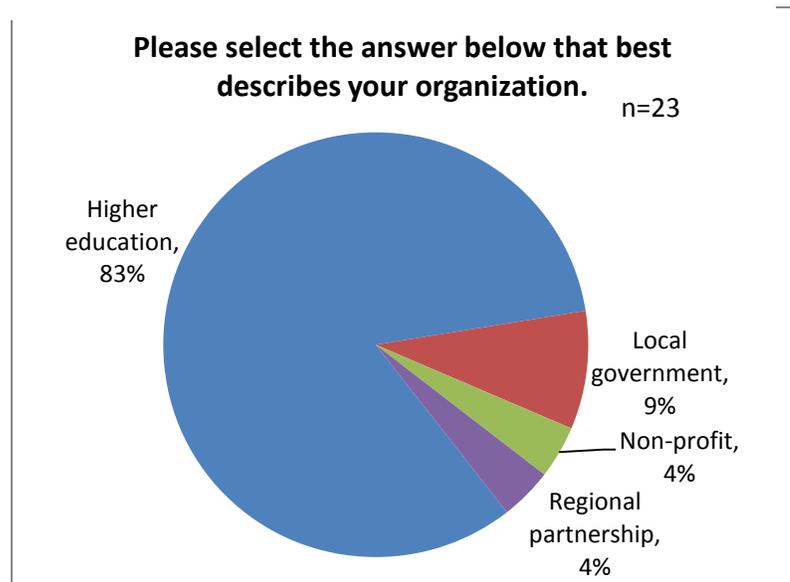
Are you willing to participate in a more in-depth discussion of the SEIP, such as an interview or focus group?

	Yes	No
Combined Total	46%	54%
Award Recipients	52%	48%
Interns & Fellows	40%	60%
Host Organization	60%	40%

RESPONSES FROM GRANT AWARD RECIPIENTS

As befits an internship program designed for current students and recent graduates of higher education institutions, 83% of survey responses representing grant award recipients were from individuals at institutions of higher education. Of the remaining 17% of respondents, 9% were from a local government, and regional partnerships and non-profit organizations accounted for 4% each.

Figure 18 - Types of Organizations Receiving Grant Award Funding



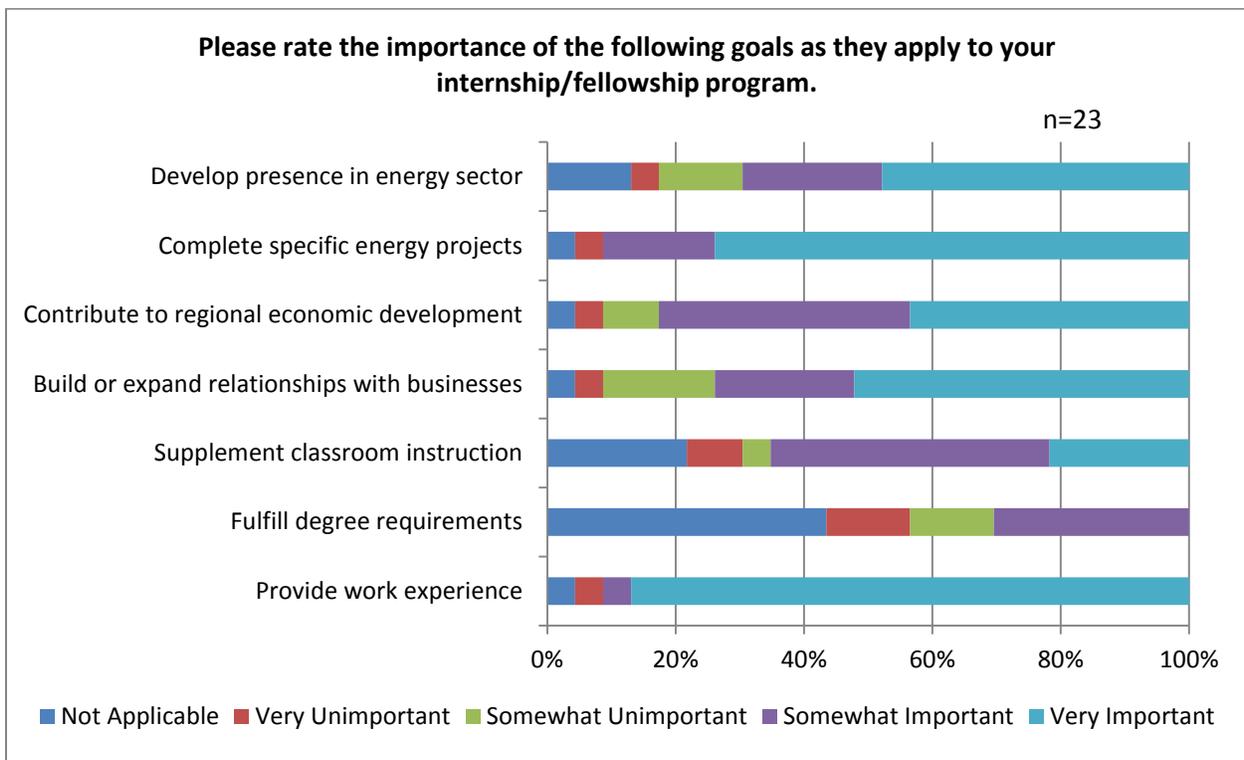
How effective were these SEIP-funded projects at assisting college graduates with finding full-time employment? The average percentage of interns and fellows who had completed their degree and received an offer for full-time employment as a result of their SEIP participation, as reported by award recipients, was 37.4%. These responses ranged from a high of 91% of student participants receiving full-time job offers to a low of 3%, and the standard deviation among these 17 responses was nearly 27%.

Project Goals

Respondents were presented with a list of possible goals for their grant-funded project and asked to rate the importance of each possible goal. About 85% of responses indicated that providing work experience was a “very important” goal of their project. The second most important goal was completing specific energy projects which received ratings of “somewhat important” or “very important” from about 90% of respondents.

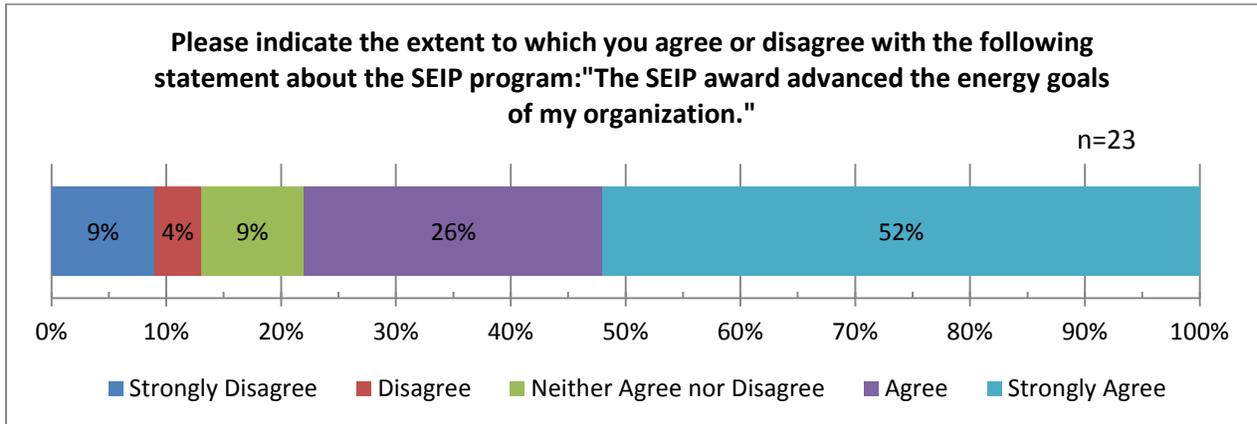
The two least important project goals were education related. Fulfilling degree requirements was rated as “not applicable” by more than 40% of respondents, was considered either “very unimportant” or “somewhat unimportant” in more than 20% of responses, and was not rated as “very important” in a single response. The second least important goal for internship programs was supplementing classroom instruction, which was rated as “not applicable” in more than 20% of responses, and was rated as “somewhat” or “very unimportant” in more than 10% of responses (Figure 19).

Figure 19 - Importance of Grant-Funded Program Goals



More than half (52%) the grant award recipients “strongly agreed” that the SEIP award advanced the organization’s energy goals and another 26% agreed that their energy goals were advanced. Among those responses indicating disagreement with the statement, 9% “strongly disagreed” and another 4% “disagreed” (Figure 20).

Figure 20 - Advancement of Organization's Energy Goals



SEIP Interaction with Existing Programs

Among responding grant award recipients, 12 (52%) of 23 respondents indicated that their organization had a program for internships or fellowships prior to receiving the SEIP award. Nine of the 11 responses indicating there was no internship/fellowship program in place prior to the SEIP award were higher education organizations. Also, 64% of respondents indicated that they plan to continue an energy-focused internship program after the SEIP concludes.

Based on this answer, respondents were either asked whether the SEIP enhanced the effectiveness of their existing program or whether the SEIP allowed the development of an internship program.

Figure 21 - Existence of Internship/Fellowship Program Prior to SEIP

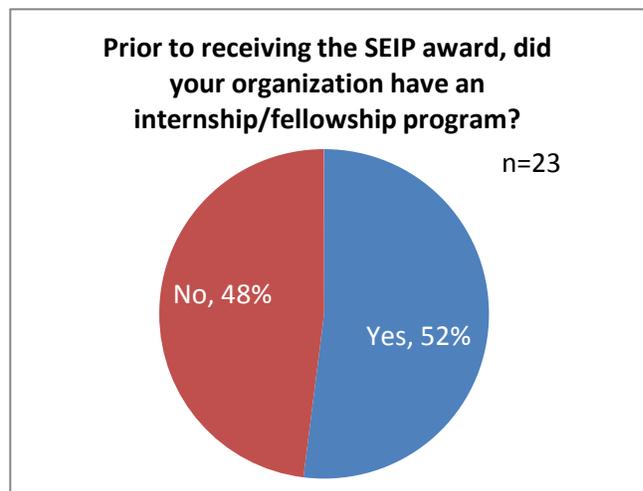
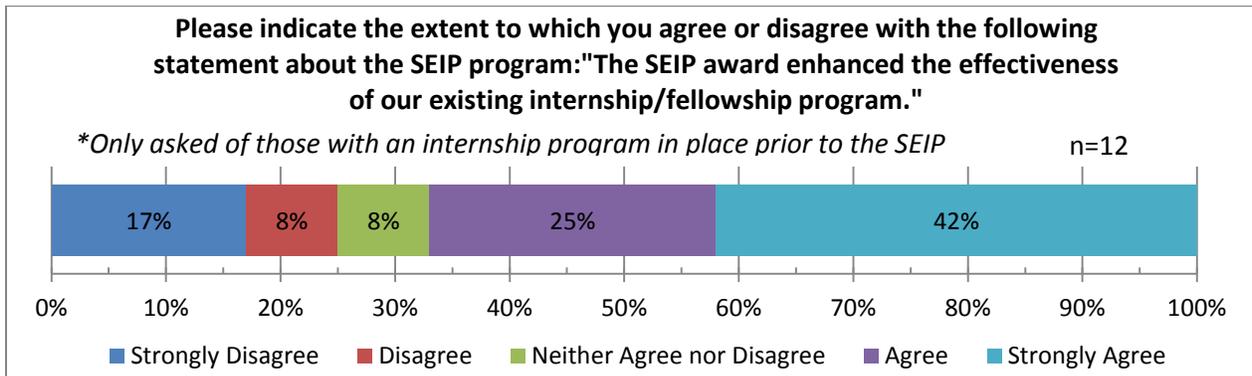


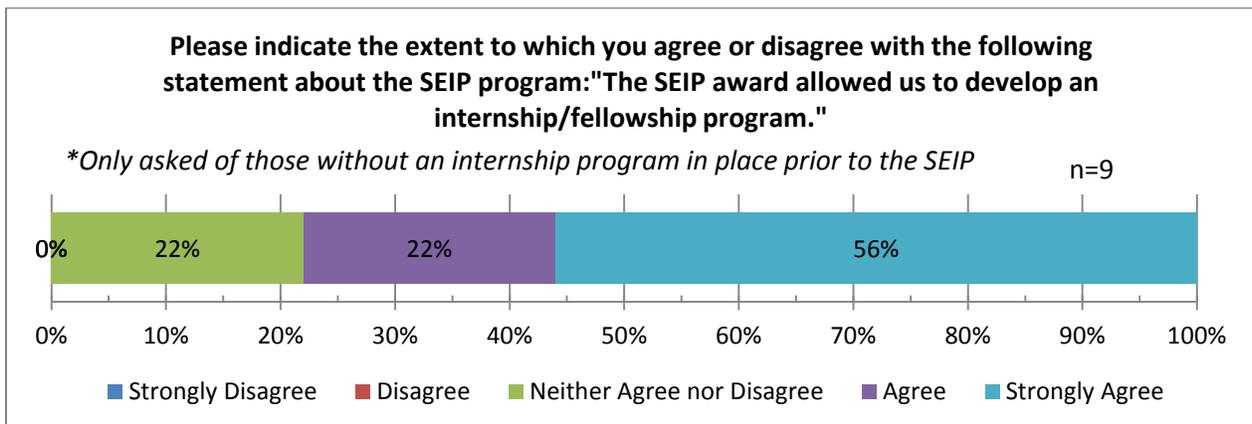
Figure 22 - SEIP Award Impact on Existing Internship Program



Two-thirds of respondents with an existing internship or fellowship program indicated that the SEIP award enhanced the effectiveness of their existing internship program, with 42% responding that they “strongly agreed” with the statement. An additional 8% of respondents neither agreed nor disagreed with the statement, while “disagree” or “strongly disagree” was selected by 25% of respondents, as shown in Figure 22.

For grant award recipients without an existing internship or fellowship program, the SEIP appeared to be very successful at supporting development of new internship/fellowship programs, with 78% of respondents indicating they either agreed or strongly agreed that the SEIP allowed them to develop an internship program (Figure 23).

Figure 23 - SEIP Award Impact on Development of New Internship Programs



Project Implementation

The SEIP provided funding for internships and fellowships. Internships were typically designed as positions for current students, and were of shorter duration than fellowships. Fellowships were designed for recent graduates who were eligible for full-time work for longer periods of time of up to a year or more. More than half (55%) of interns worked less than 600 hours and 33% of interns worked between 601 and 1,000 hours, while 68% of fellows worked for 1,000 hours or more (Figures 24 & 25).

Figure 24 - Work Hours Completed for Typical Intern

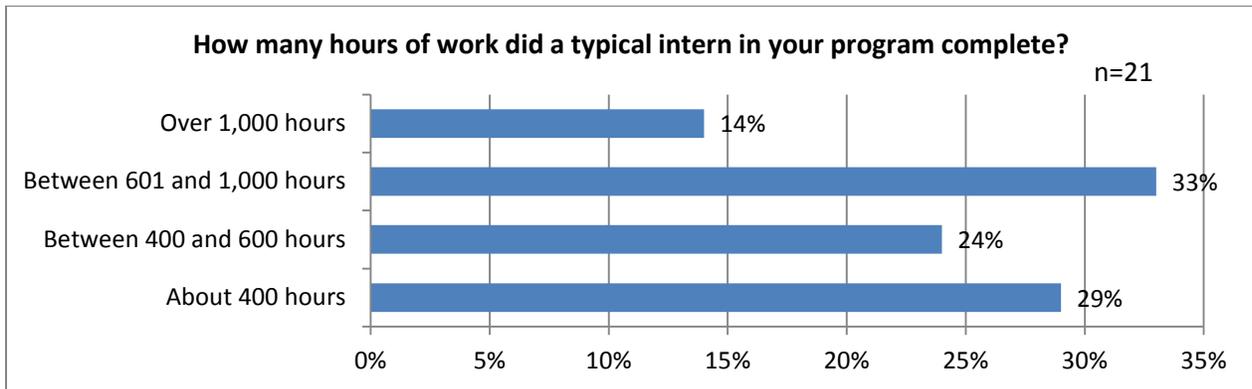
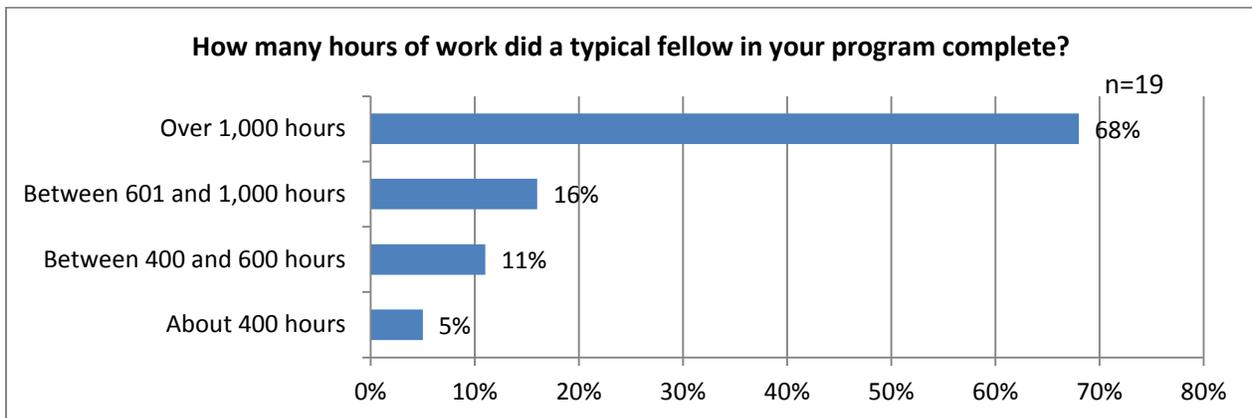
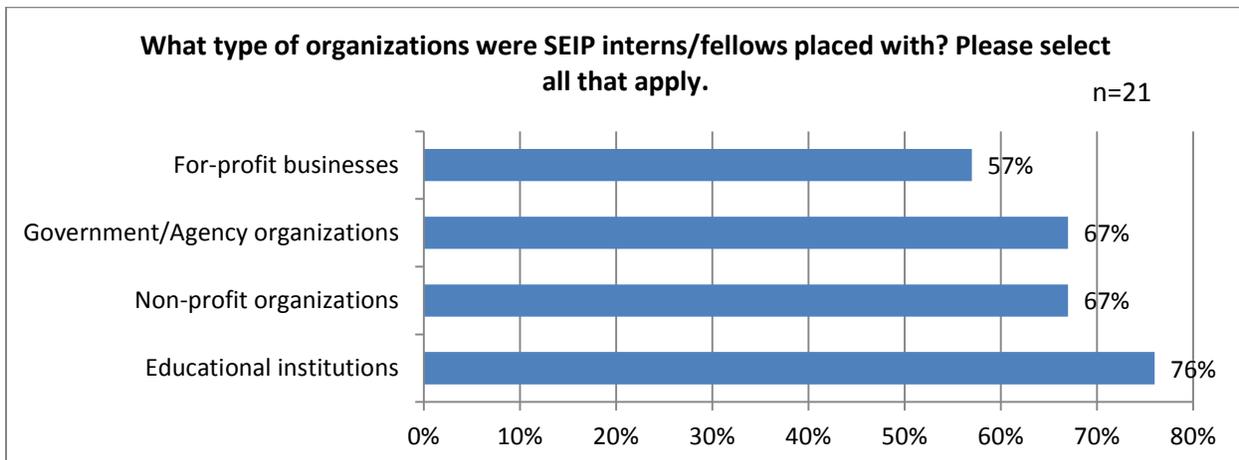


Figure 25 - Work Hours Completed for Typical Fellow



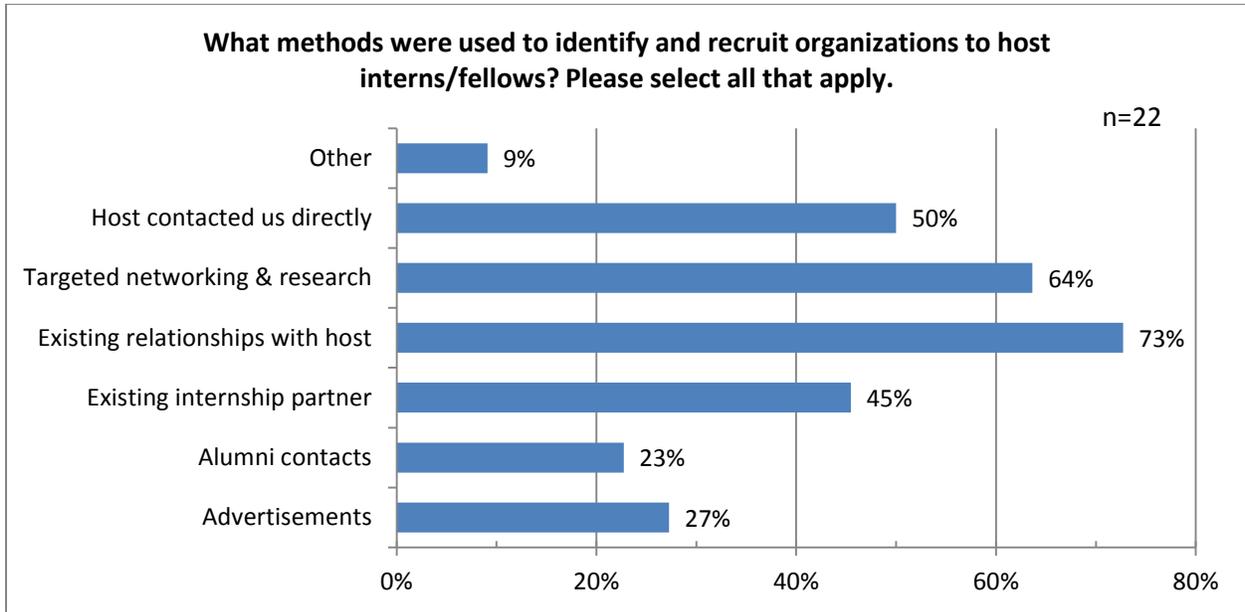
Only 57% of responding award recipients placed students at for-profit businesses, while 76% placed students at educational institutions. There were no restrictions on the placement of interns/fellows related to the type of organization at which they worked. Likewise, many of the award recipients placed at least some interns or fellows within their own organization.

Figure 26 - Type of Organizations Hosting Interns



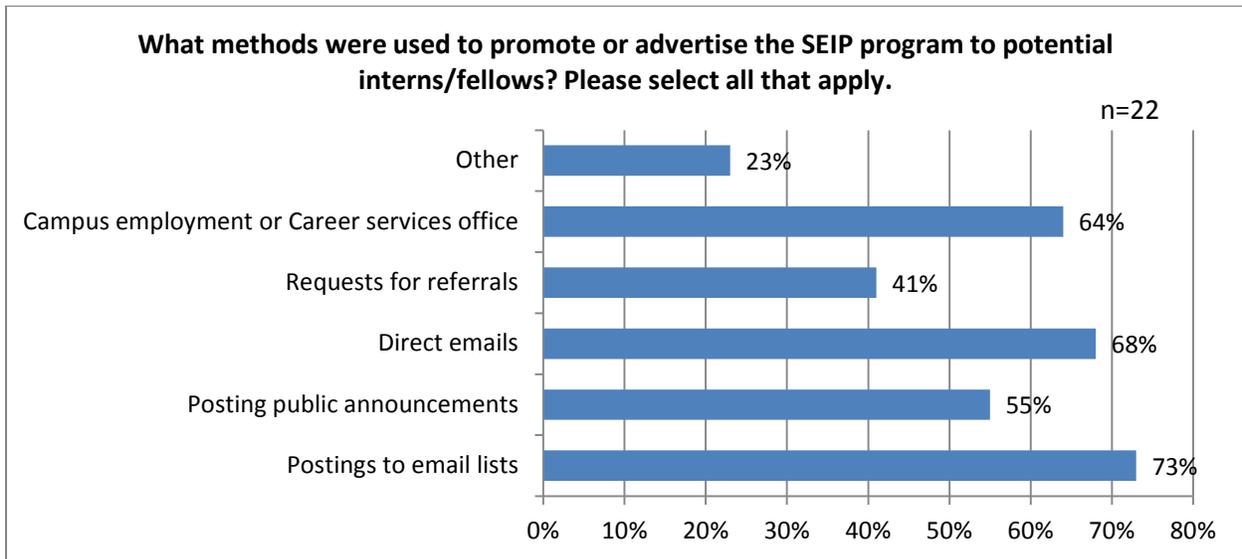
There were a variety of approaches employed to recruit organizations to host interns or fellows, and the most common method, reported by 73% of respondents, among respondents was to place students at organizations where there was an existing relationship between the award recipient and the host organization. The second most common method to identify and recruit host organizations, reported by 64% of respondents, was targeted networking and research. Half of respondents indicated that host organizations contacted them directly, and 45% reported that the host organization was an existing internship partner.

Figure 27 - Methods to Recruit Host Organizations



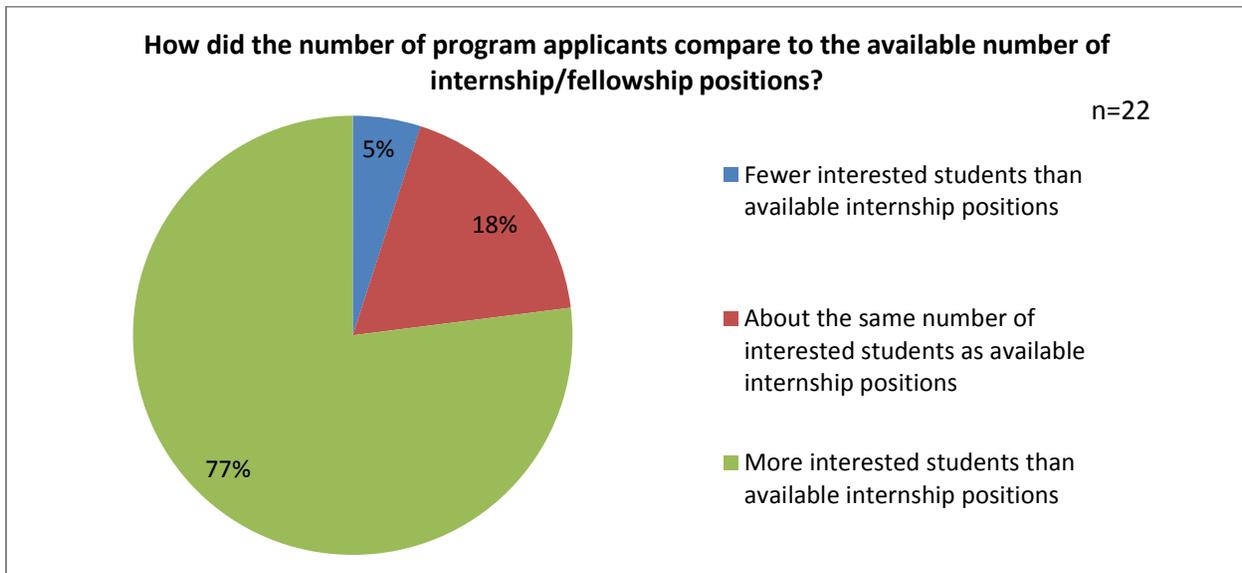
On the other side of the equation was the recruitment of interns and fellows. A large majority of respondents reported using email as a marketing channel, with 73% advertising through email list-serves and 68% reporting direct email. Campus employment or career service offices were also a popular marketing channel for projects, with 64% of respondents reporting use of these services. Other methods included posting public announcements, making requests for referrals, and some projects even went so far as to build project-specific websites.

Figure 28 - Methods to Recruit Interns & Fellows



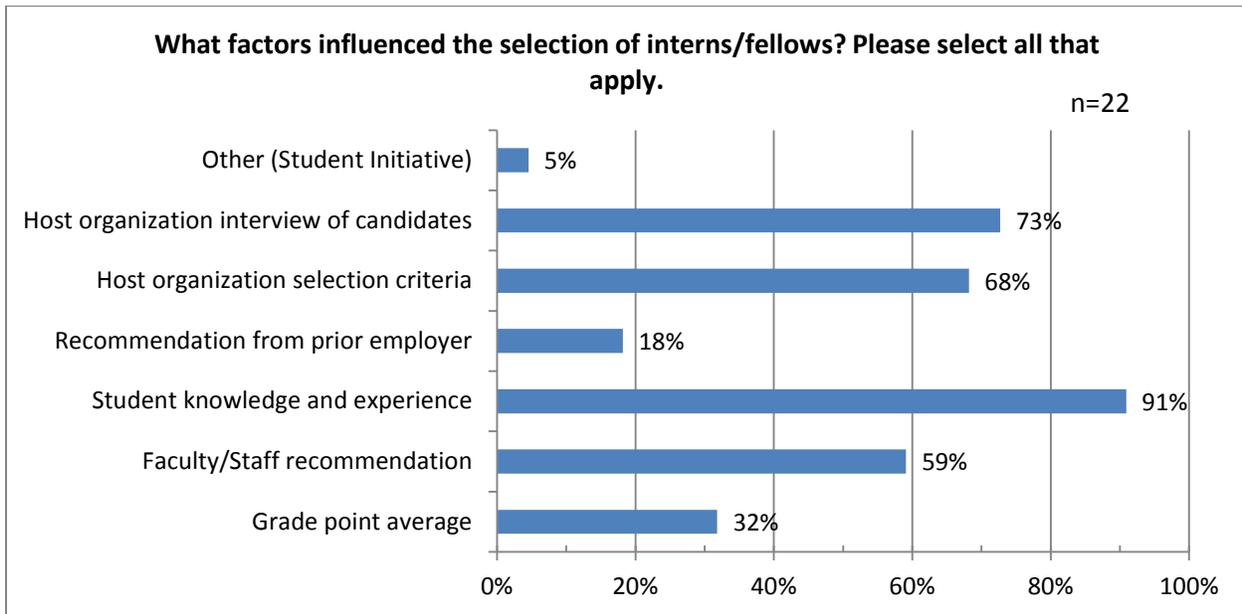
Overall, among responding award recipients, the SEIP-funded projects appear to have been very competitive, with 77% of respondents indicating that there were more interested students than available positions. Only 5% of responses indicated they had fewer interested students than positions.

Figure 29 - Competitiveness of Internship/Fellowship Positions



Student knowledge and experience was the most commonly reported selection factor, with 91% of respondents indicating its use. Input from the host organization was also a commonly reported selection factor, with 73% of respondents indicating the host organization interviews were a selection factor and 68% indicating that host organization selection criteria influenced selection. The final most common criterion influencing the selection of interns and fellows was a recommendation by faculty or staff, reported by 59% of respondents (Figure 30).

Figure 30 - Intern/Fellow Selection Factors



RESPONSES FROM INTERNS & FELLOWS

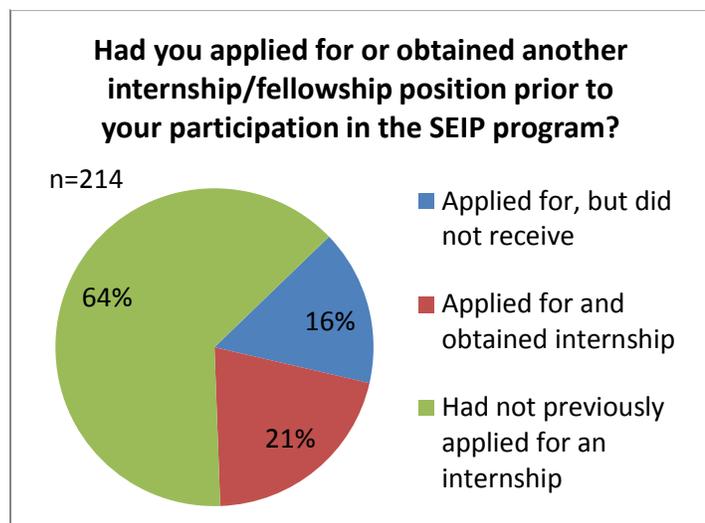
Overall, based on responses to text-entry questions, the interns reported experiences that were beneficial in two key areas: work experience and education. Interns were able to gain valuable technical/field-related experience as well as to gain experience in business areas that are not available in the class room setting such as networking, project management, and soft skills. Interns were able to leverage the experience not only to secure other non-SEIP internships but also to gain full time employment in the industry. Interns also indicated that the program enhanced community awareness around energy issues.

Energy Internship/Fellowship Program Effectiveness

The majority – 64% – of responding interns and fellows had not previously applied for an internship prior to the SEIP. Among those who had previously applied for an internship, 21% had previously obtained an internship and 16% had applied but did not receive an internship.

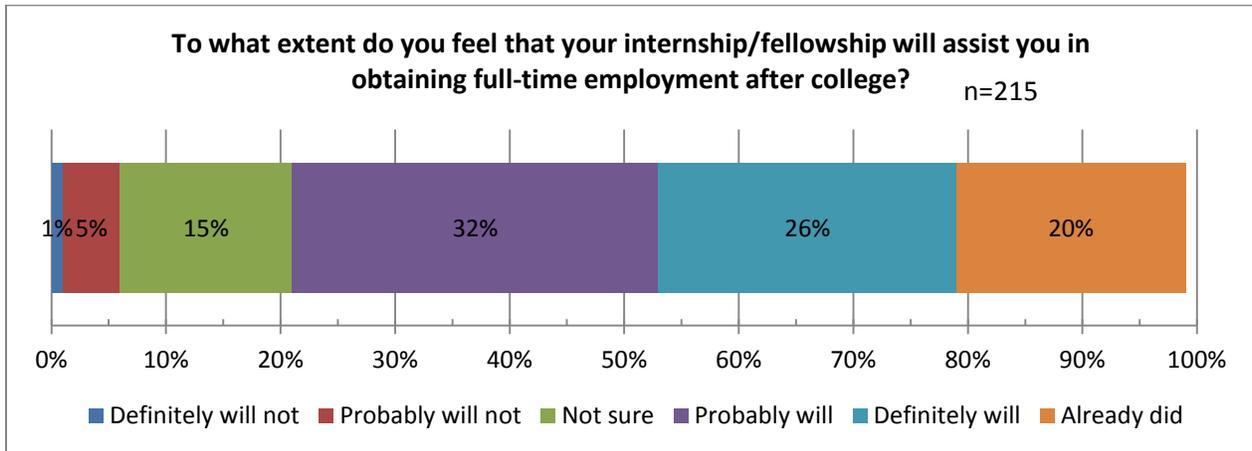
Among responding interns/fellows, one in five (20%) had already obtained full-time employment at the time of the survey, and 58% felt that the SEIP program “probably”

Figure 31 - Previous Internships



or “definitely” would assist them in obtaining full-time employment after college. Only 6% of responses indicated that the program “probably” or “definitely” would not assist them in obtaining full-time employment after college, and 15% were unsure (Figure 32).

Figure 32 - Assistance in Obtaining Full-time Employment After College

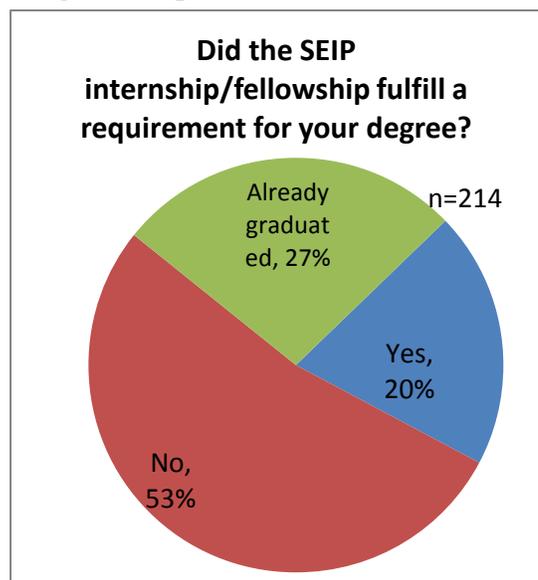


Interns and fellows participating in the SEIP were largely acting to increase their experience and improve their employability. The SEIP internship or fellowship did not fulfill a degree requirement for more than half (53%) of the participants that had not graduated, and only 20% of participating students responding to the survey reported that the internship fulfilled a degree requirement. More than a quarter (27%) of respondents indicated they had already graduated college.

When asked to write a brief explanation about why the intern or fellow would or would not participate in the SEIP program again, the majority of interns indicated that they would participate again in the SEIP program due to the invaluable work experience gained, education, and benefit to future employment opportunities. Among that group, several indicated that they were no longer eligible for an internship program because they have obtained full time employment or have graduated. The respondents that were not willing to participate again in the SEIP Program gave reasons such as: the pay and benefits offered were insufficient for their needs, the work experience provided by the internship was not relevant to future employment in the industry, or the proper training and guidance was not provided by the host organization for a rewarding experience.

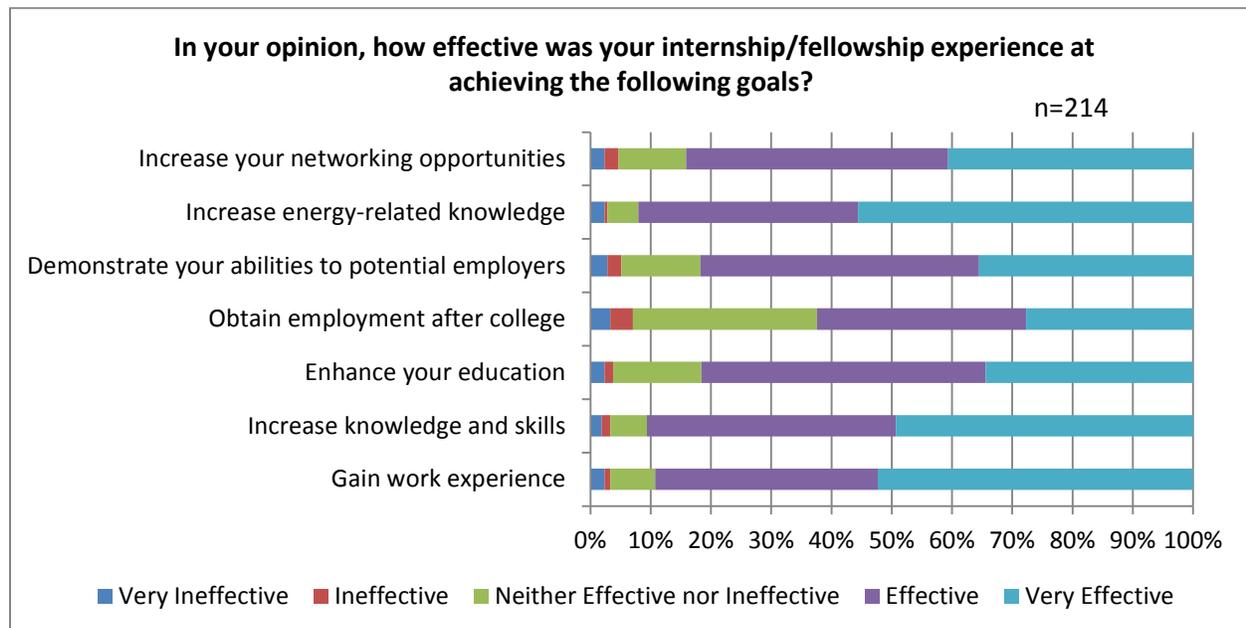
When asked how effective their internship or fellowship experience was at achieving various program-related goals, the responding students generally found their experience to have been effective. More than 90% of

Figure 33 - SEIP Used to Fulfill Degree Requirement



respondents reported their experience was either “effective” or “very effective” at increasing energy-related knowledge and generally increasing their knowledge and skills. Just under 90% of respondents rated their internship or fellowship experiences as “effective” or “very effective” in achieving the goal of gaining work experience. The goal receiving the most responses of “ineffective,” “very ineffective,” or “neither effective nor ineffective” was obtaining employment after college (Figure 34).

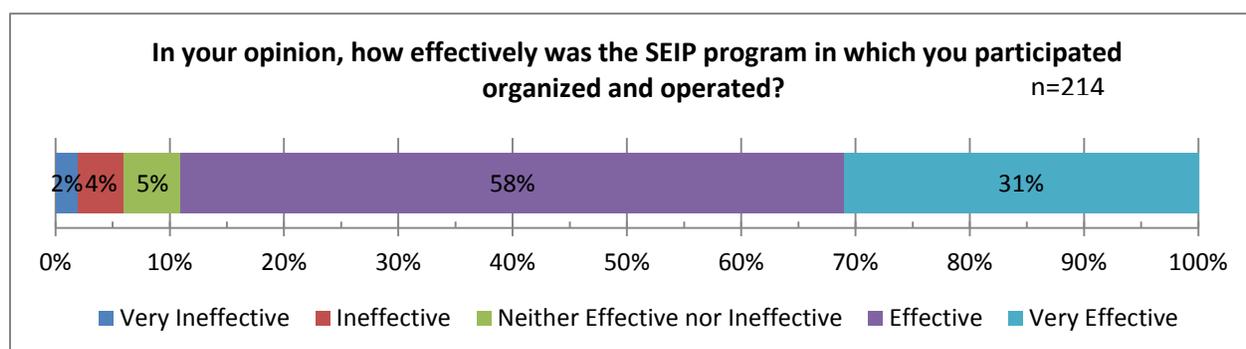
Figure 34 - Effectiveness at Achieving Goals



SEIP Experience & Outcomes

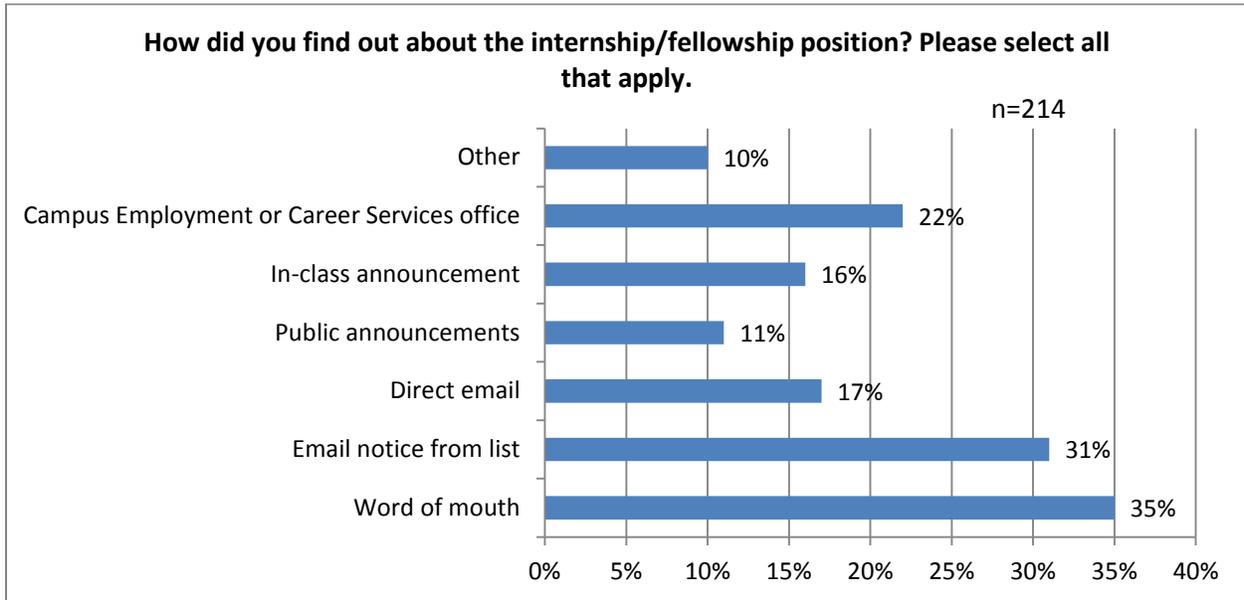
The interns and fellows responding to the survey overwhelmingly had a positive impression regarding the organization and operation of the project in which they participated. Nearly 90% of the responding students rated the effectiveness of the organization and operation of the project in which they participated as either “effective” or “very effective,” while 4% responded with a rating of “ineffective” and only 2% provided a rating of “very ineffective” (Figure 35).

Figure 35 - Effectiveness of Project Organization and Operation



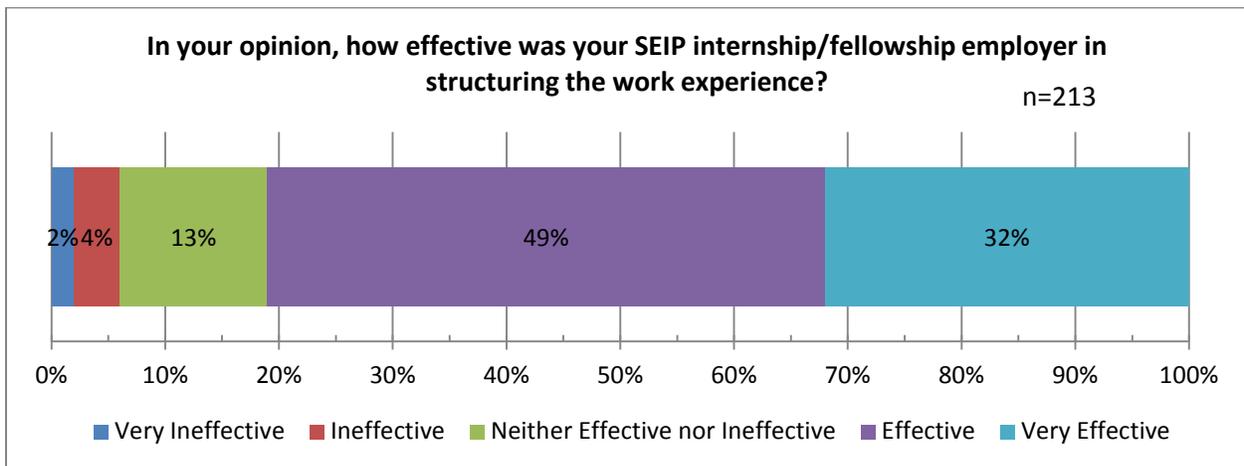
Word of mouth was the most common method responding interns and fellows cited for hearing about the positions, selected by 35% of participants. The second most common method cited was receiving an email notice from a list (31%), followed by 22% who reported hearing about the program through a campus employment or career services office (Figure 36).

Figure 36 - Interns/Fellows Hearing About the Position



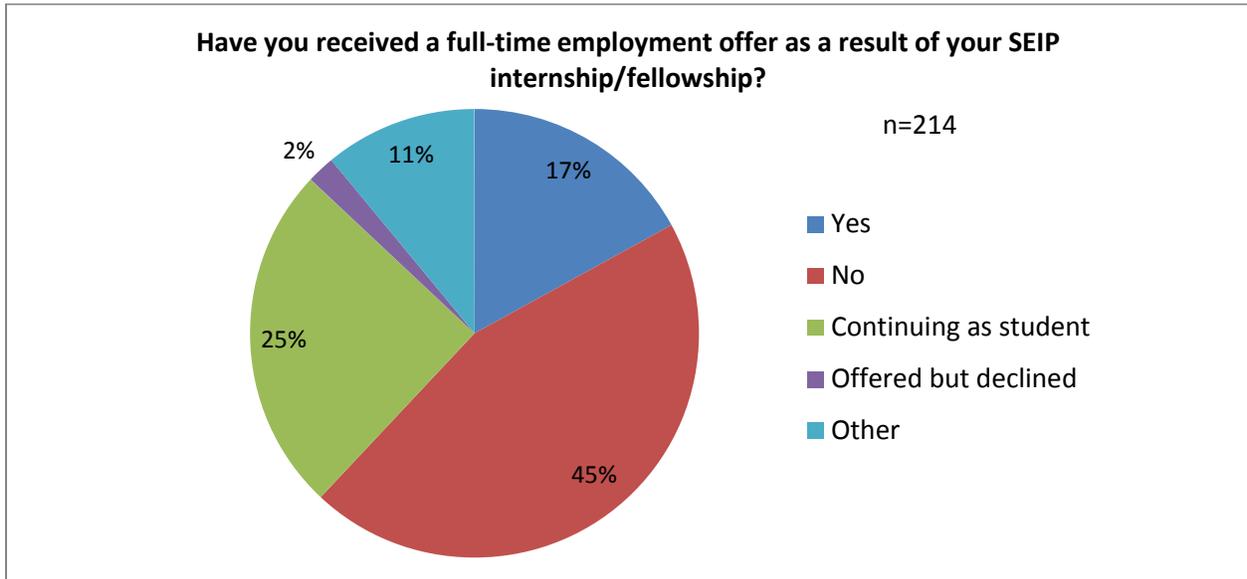
Student participants were also very positive about the effectiveness of their host employer’s structuring of the work experience, with 32% responding that their host employer was “very effective” at structuring the experience. An additional 49% provided a response of “effective,” 13% responded with “neither effective nor ineffective,” and only 6% of interns and fellows reported that their host employer was either “ineffective” or “very ineffective” at structuring the work experience.

Figure 37 - Host Employer Structuring Work Experience



As a result of the internship or fellowship, 17% of responding students indicated they had received a full-time employment offer and an additional 2% received an offer but declined. A quarter of respondents indicated they were continuing as a student, and 45% did not receive an offer of full-time employment.

Figure 38 - Receipt of Full-Time Employment Offer

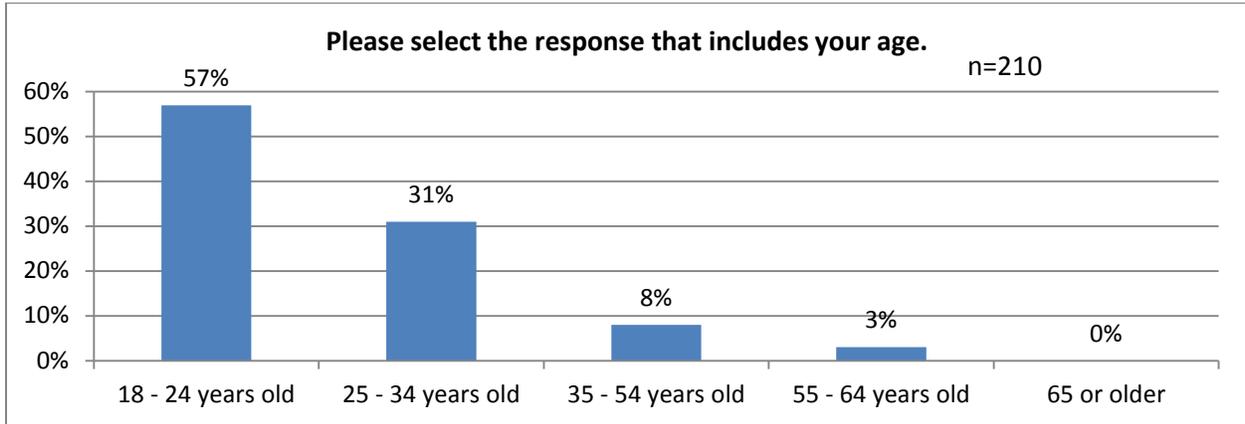


Among those indicating they had become employed as a result of the program, on average 88% of their work will be related to energy. When asked what percentage of their work activity will be related to energy, the minimum percentage indicated was 15%, the maximum was 100%, and standard deviation was 18%.

Demographics of Interns & Fellows

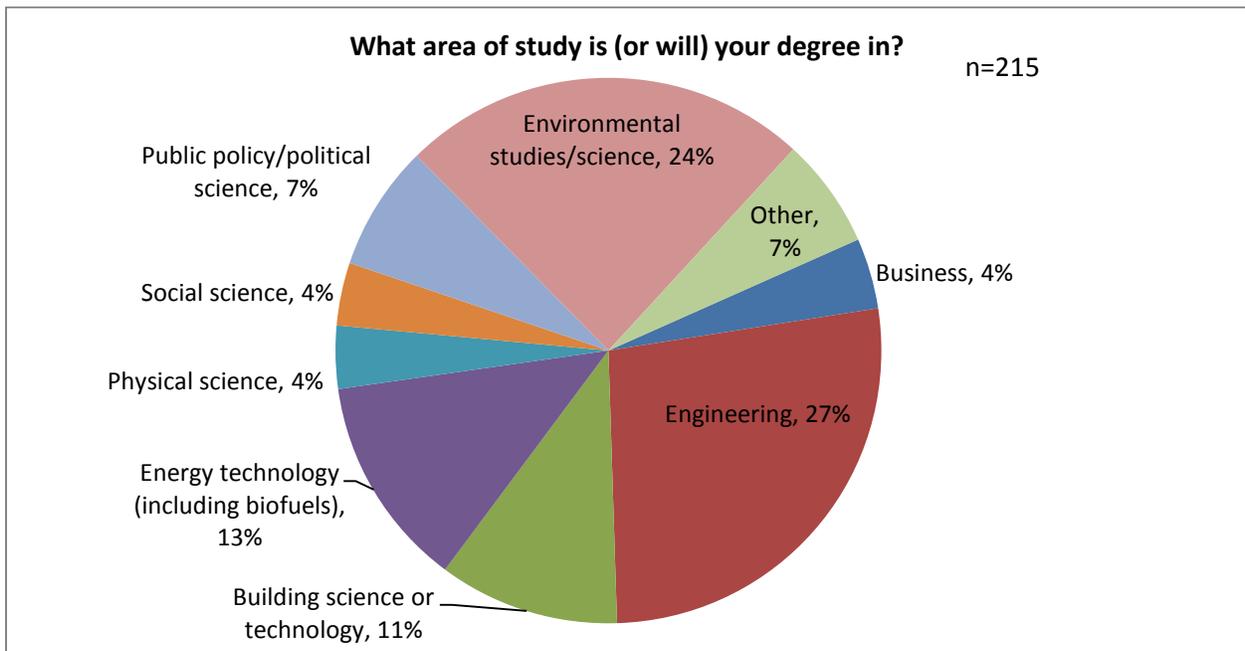
More than half (57%) the responding students were between 18 and 24 years of age, and 31% were between 24 and 34 years of age. Participants between 35 and 54 years of age only represented 8% of respondents, and no responding participants were 65 years old or older (Figure 39).

Figure 39 - Age of Participants



Although interns and fellows participating in the SEIP were from a very diverse range of academic backgrounds, just over half reported their degree is [or will be] in either engineering (27%) or environmental studies/science (24%). Energy technology (13%) and building science (11%) were the next two most common areas of study for student participants.

Figure 40 - Area of Study



The breakdown of participants by race revealed a diverse mix of racial backgrounds among participants, although one that was dominated by non-Hispanic whites (74%). About 60% of responding participants were male, 36% were female, and 4% declined to answer (Figures 41 & 42).

Figure 42 - Gender of Participants

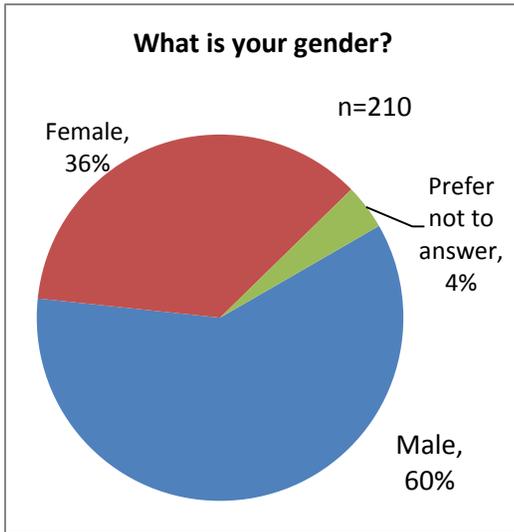
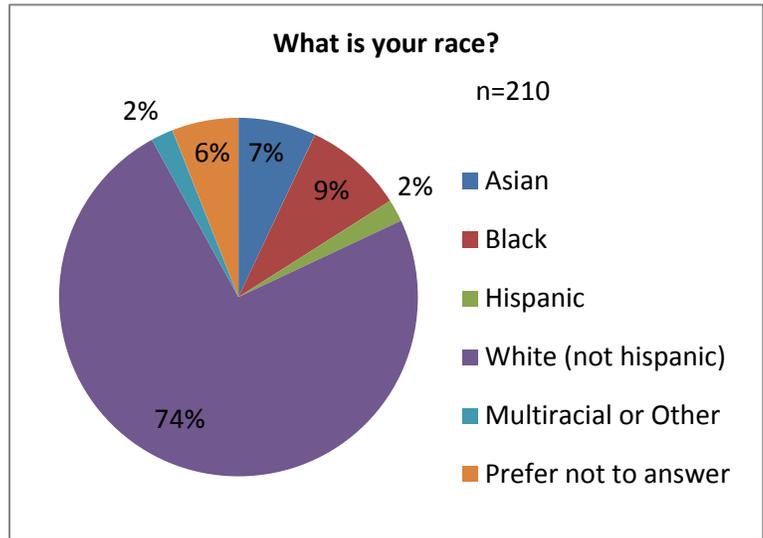
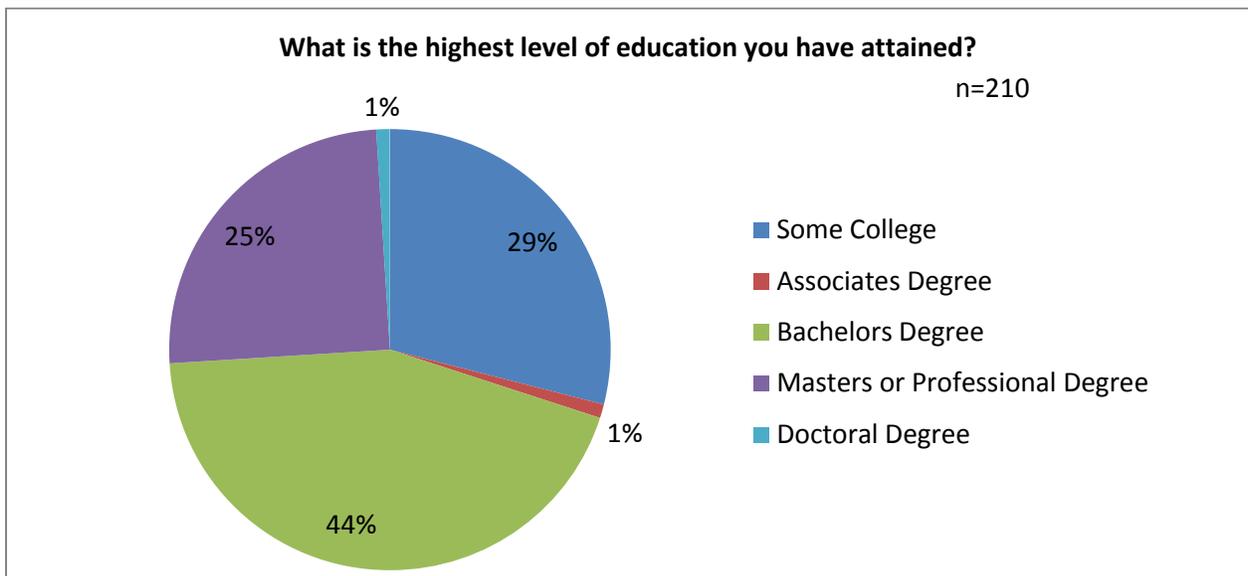


Figure 41 - Race of Participants



The level of educational attainment among participants was far higher than that of the population at-large, as would be expected. One percent reported holding a doctoral degree, 25% a masters or professional degree, and 44% a bachelor's degree. An additional 29% reported having completed some college (Figure 43).

Figure 43 - Educational Attainment of Participants



RESPONSES FROM HOST ORGANIZATIONS

Interns and fellows were placed with all types of host organizations. Among host organizations responding to the survey, 38% were for-profit businesses and 26% were higher education institutions. Local governments accounted for an additional 16% of host organizations and non-profits represented 12%, as shown in Figure 44.

Individual grant-funded projects were given some flexibility to determine criteria for the selection of the organizations where their students were placed, including the option of using the grant project to place interns or fellows within their own organization.

Hosting student workers was a new experience for many of the host organizations responding to the survey, with 42% reporting that they did not host interns or fellows prior to the SEIP. A third of the responding host organizations only hosted one or two interns prior to the SEIP, and only 11% indicated that the organization regularly hosted five or more interns/fellows before the SEIP (Figure 45).

Figure 44 - Host Organizations by Type

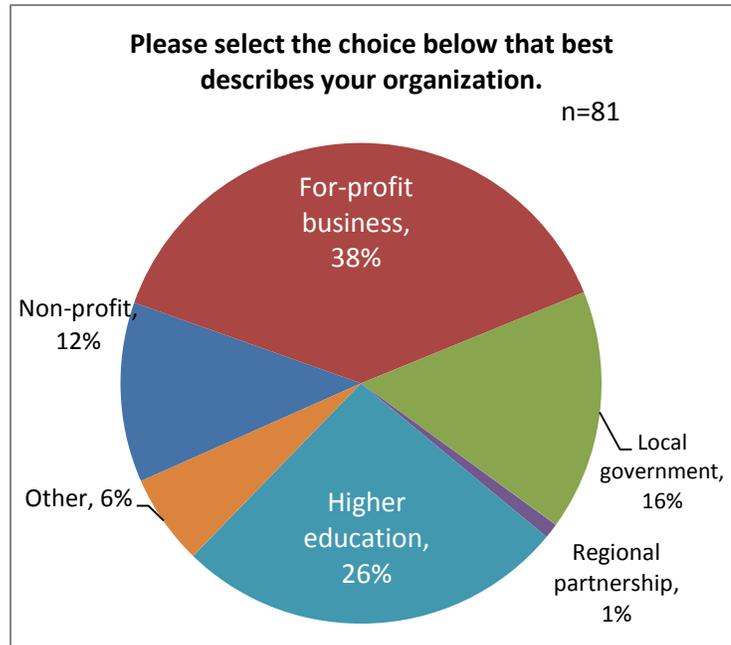
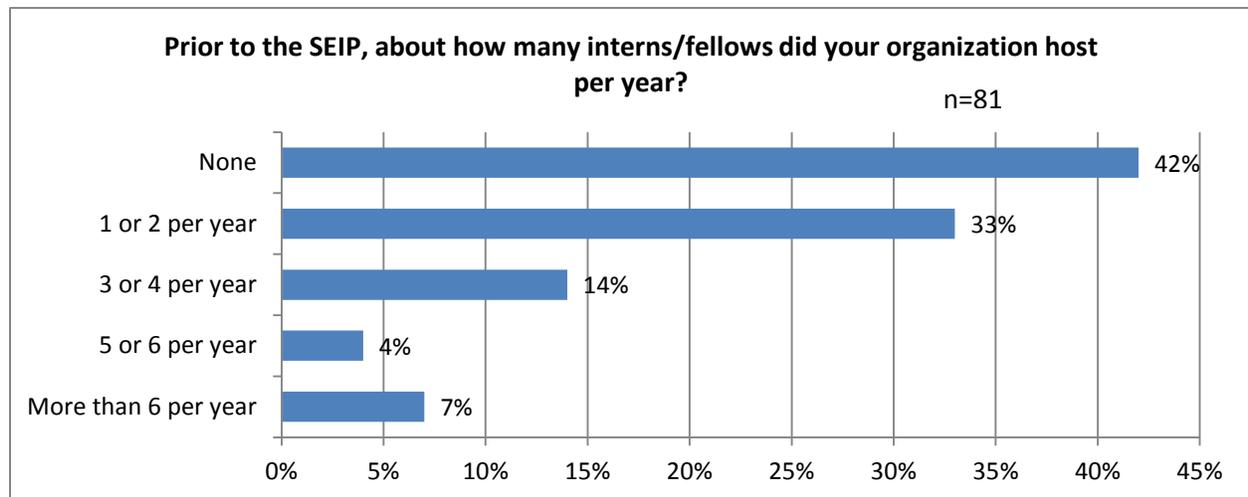


Figure 45 - Interns/Fellows Hosted Prior to the SEIP

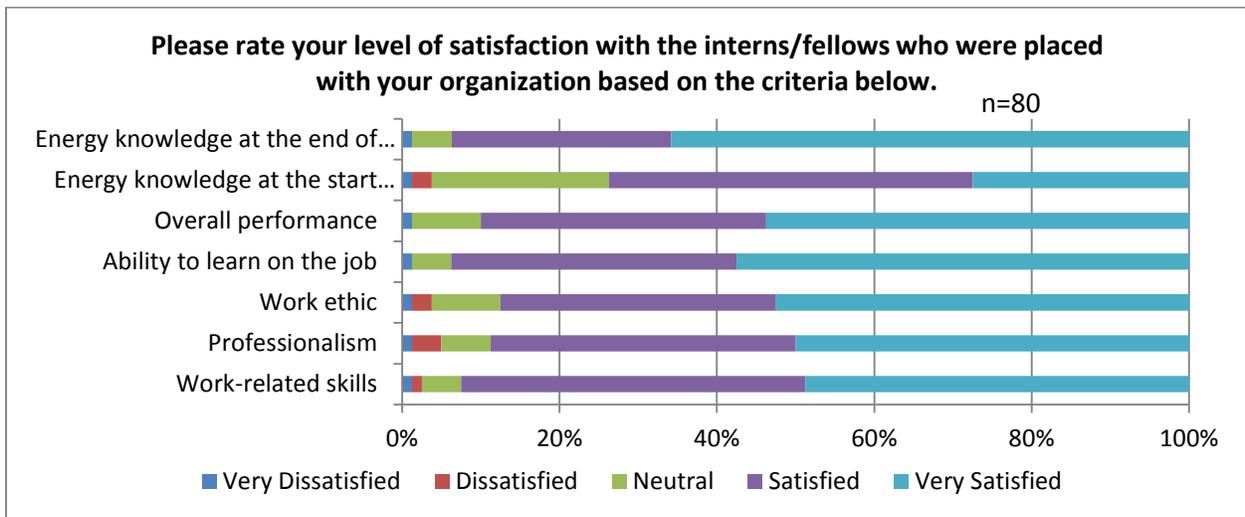


Performance of Interns & Fellows

Responding host organizations were asked to rate their level of satisfaction with the interns/fellows who were placed with their organization for each criterion in a provided list. Notably, the level of satisfaction with the energy knowledge of interns/fellows increased significantly between the start of the internship/fellowship to the conclusion. Only 28% of host organizations were “very satisfied” with students’ energy knowledge at the start, another 46% were “satisfied,” and 4% were either “dissatisfied” or “very dissatisfied.” At the end of the work experience, however, only 1% remained “very dissatisfied,” and 94% of responding hosts were either “satisfied” or “very satisfied” with the energy knowledge of their interns and fellows.

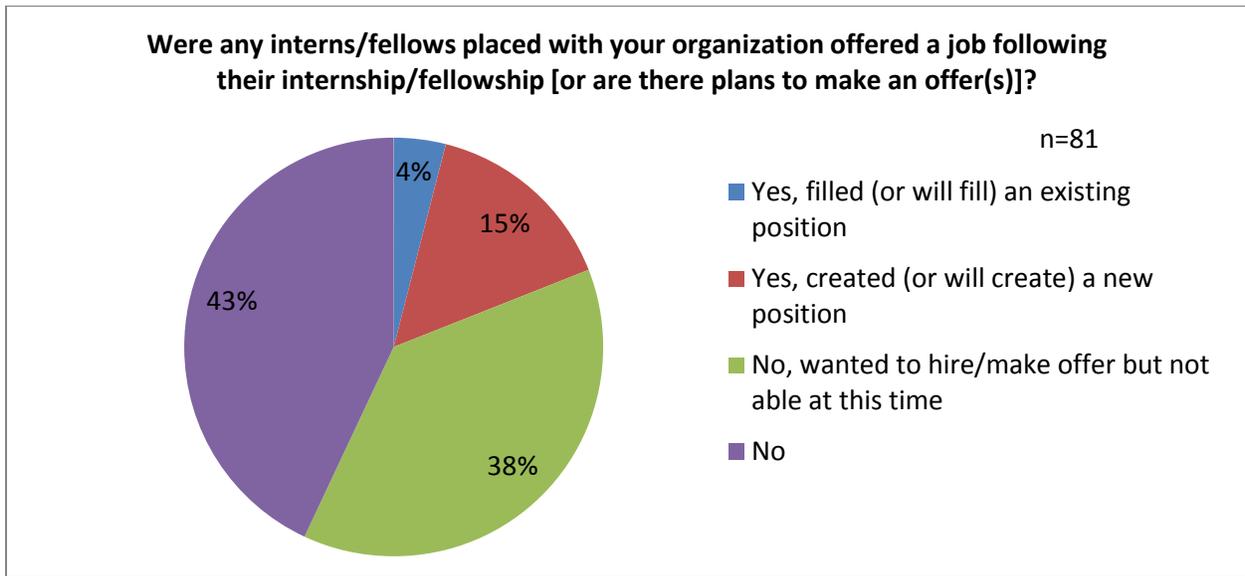
This shift in the satisfaction of hosts with the students’ energy knowledge is also reflected in the 94% of hosts indicating they were “satisfied” or “very satisfied” with students’ ability to learn on the job. Overall performance opinions were also very positive, with 54% of responses indicating “very satisfied,” 36% “satisfied,” and 9% neutral. The two criteria for which host organizations indicated the least satisfaction were professionalism and work ethic, which received largely positive responses but also received 5% and 4% negative responses, respectively (Figure 46).

Figure 46 – Level of Satisfaction with Interns/Fellows



The overwhelmingly positive responses to intern/fellow performance are reflected in the interest host organizations showed in hiring these students. About 4% of responding host organizations filled an existing position through the SEIP, and perhaps even more telling, 15% indicated that a new position was being created to employ an intern or fellow following the conclusion of their SEIP position. An additional 38% of respondents expressed a desire to hire an intern or fellow, but were unable to at the present time.

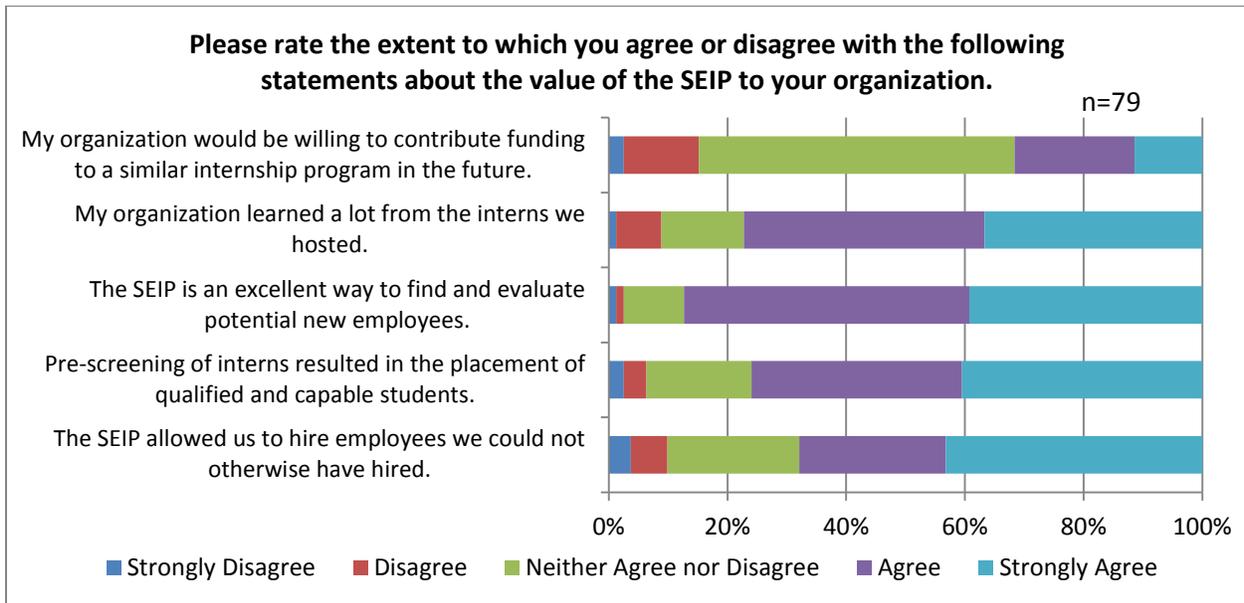
Figure 47 - Job Offers Made to Interns/Fellows



SEIP Participation

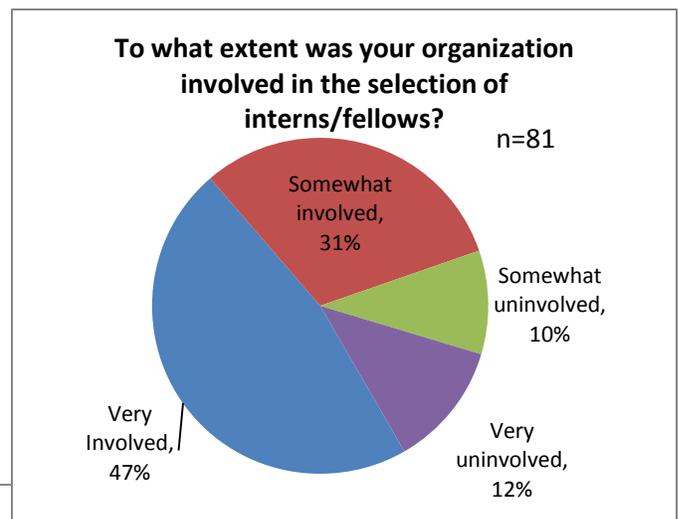
Responding host organizations were asked to indicate their agreement with statements about the value of the SEIP to their organization. Respondents were most agreed that the SEIP was valuable as a way to find and evaluate potential new employees, with 87% of responses indicating agreement. Forty-three percent of host organizations “strongly agreed” that being able to hire employees that otherwise wouldn’t have been hired was a major source of value from the SEIP. More than half (53%) of responding hosts were neutral about their willingness to contribute funding to a similar program in the future, and 16% of respondents indicated they disagreed that contributing funding in the future would have value to their organization (Figure 48).

Figure 48 - Value of SEIP to Host Organization



Nearly 80% of host organizations were at least somewhat involved with the selection of interns and fellows, and 47% were “very involved.” A full 12% of hosts were “very uninvolved” with intern/fellow selection, and 10% were “somewhat uninvolved” (Figure 49).

Figure 49 - Host Involvement in Selection



The majority (78%) of host organizations reported being satisfied with their level of involvement with the selection of interns and fellows. While only 1% indicated they would be less involved in selection if they participated in the SEIP again, 21% indicated they would be more involved (Figure 50).

How would your level of involvement in the interns/fellows selection process change if you were to participate in the SEIP again?

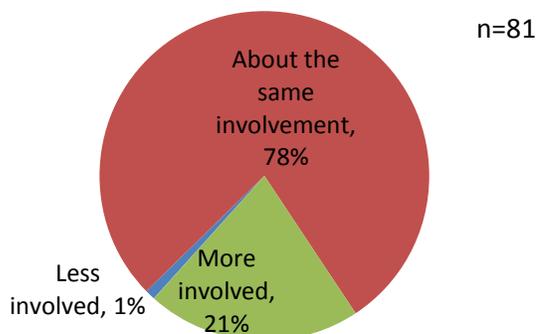


Figure 50 - Future Change in Selection Involvement

Host Organization Demographics

Host organizations reported being classified in a wide variety of industries, although the most common responses were: Education, Public Services/Administration, and Manufacturing, as shown in Figure 51.

Interns and fellows also worked with a wide variety of energy technologies and resources, as shown in Figure 52. The most common by far was energy efficiency, with which 73% of responding host organizations indicated their interns or fellows worked. Solar electric and solar thermal were the second and third most common green energy areas in which interns/fellows worked, reported by 40% and 21%, respectively.

Figure 51 - Host Organization NAICS Industry

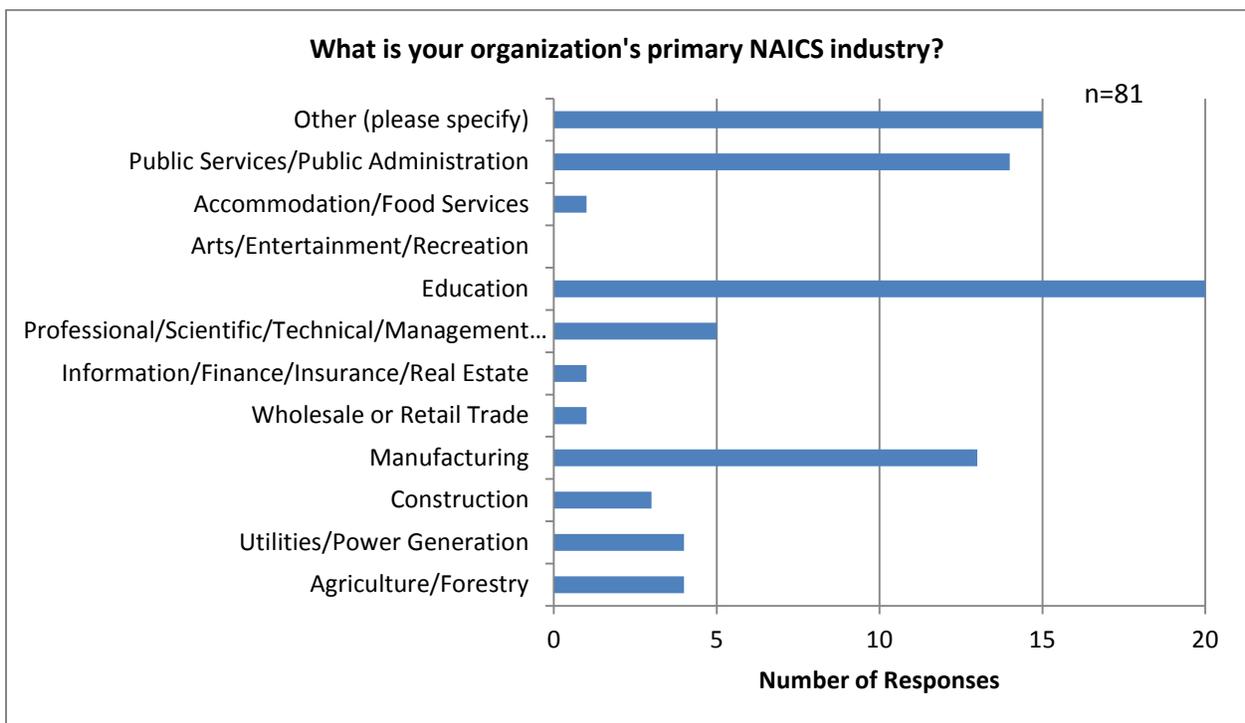
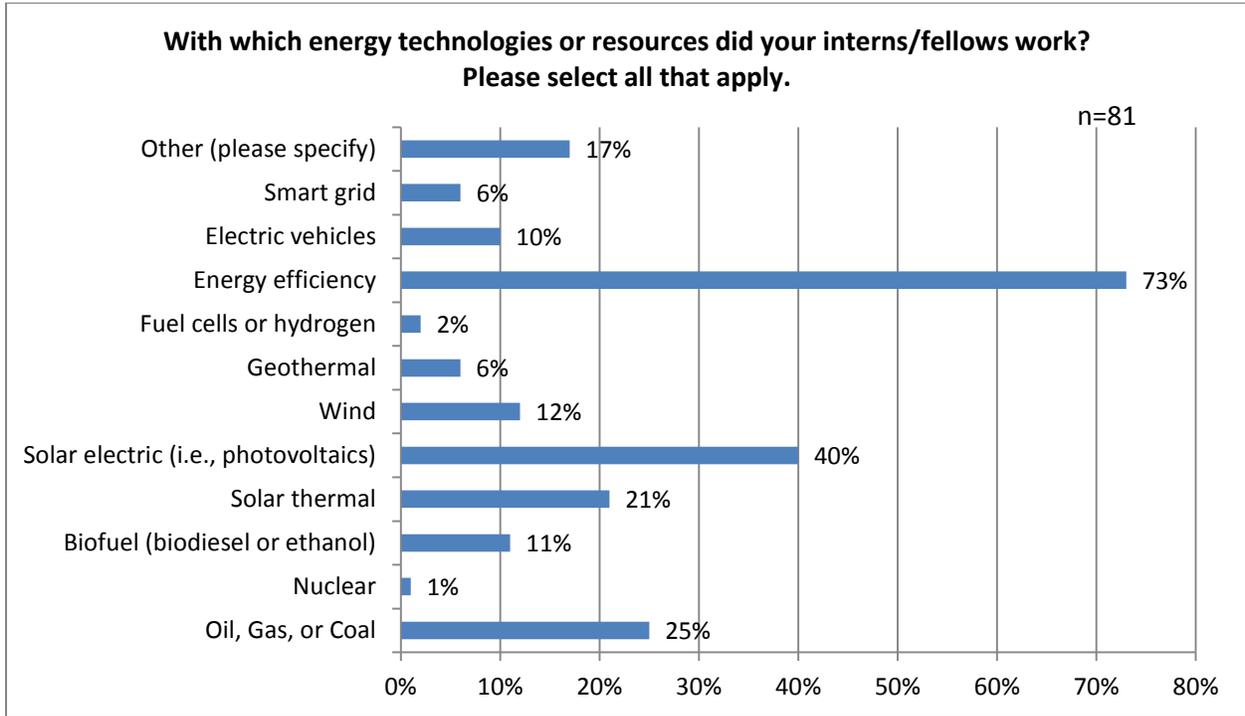
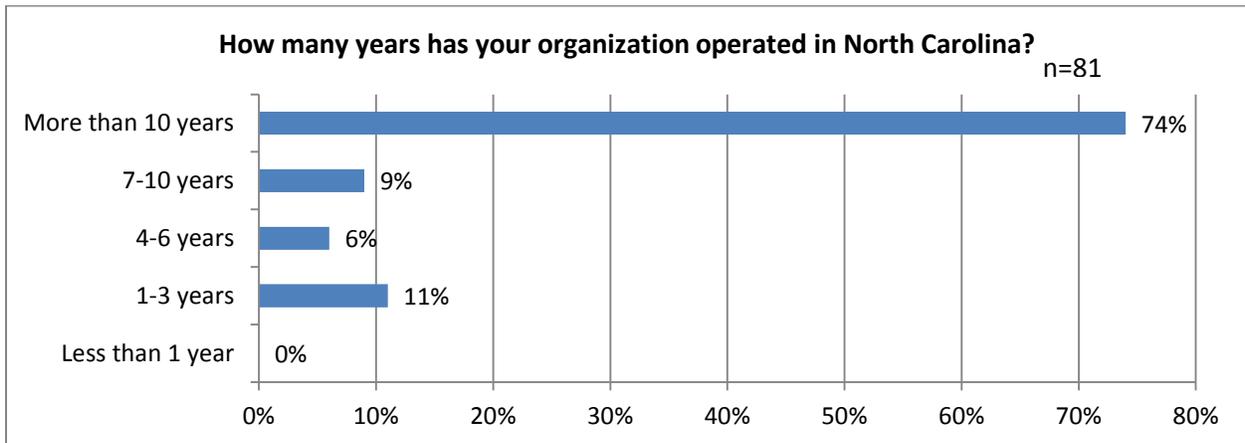


Figure 52 - Energy Technologies & Resources



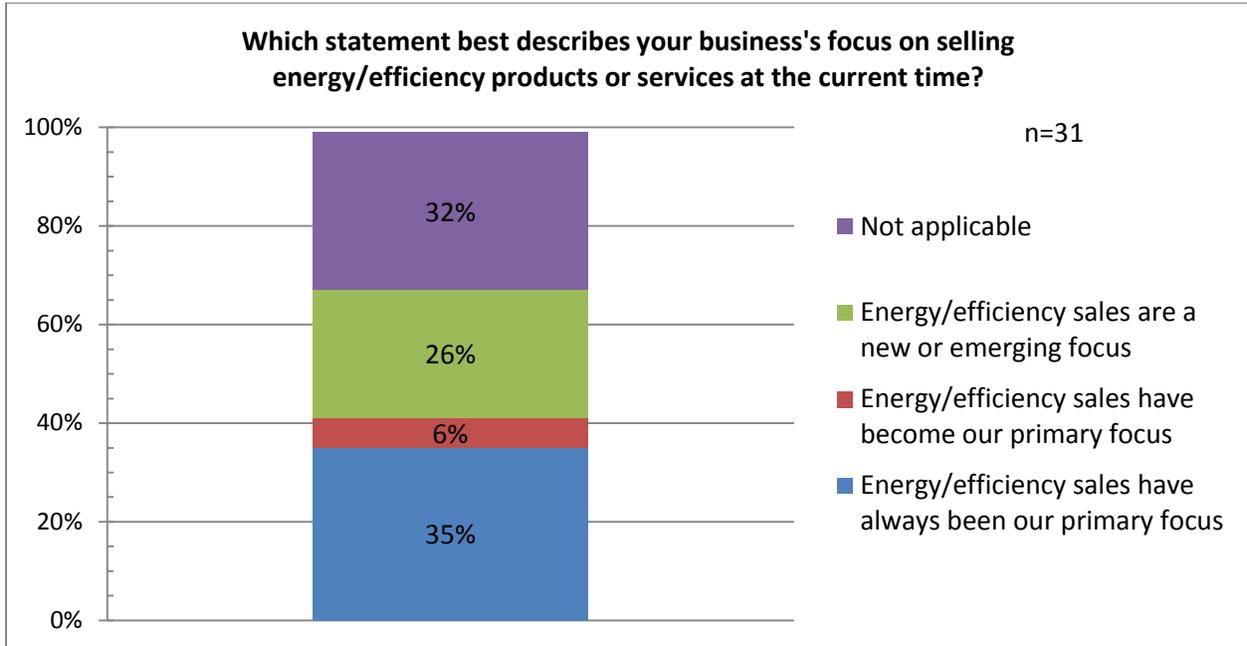
Nearly three in four host organizations have operated in North Carolina for a decade or more, while only 11% reported having operated in the state for fewer than three years.

Figure 53 - Years Organization Operated in North Carolina



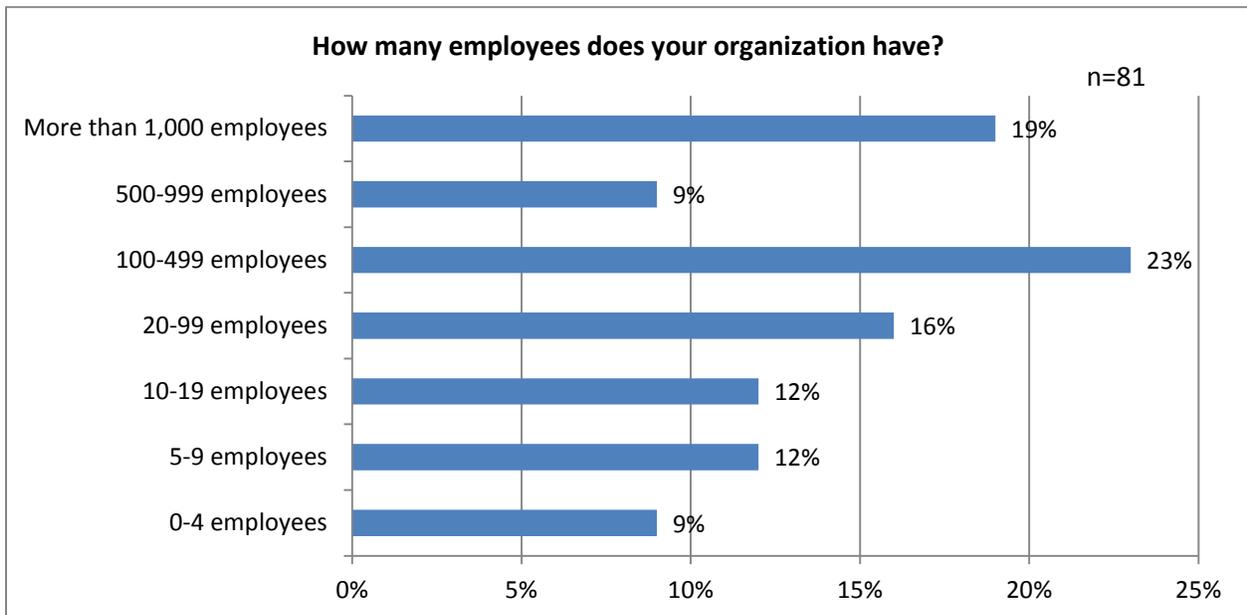
As a business focus, energy and efficiency among host organizations was split into rough thirds. Among responding hosts, energy and efficiency products/services has always been a primary focus for 35% of hosts, has recently become the primary focus for another 6% of hosts, and is a new or emerging area of focus for 26% of these hosts. When asked to indicate what percentage of the host organization’s activities are focused on energy and sustainability products or services, the 77 responses had a range from 0% to 100%, an average of 46%, and a standard deviation of 40% (Figure 54).

Figure 54 - Energy & Efficiency Focus of Host Organization



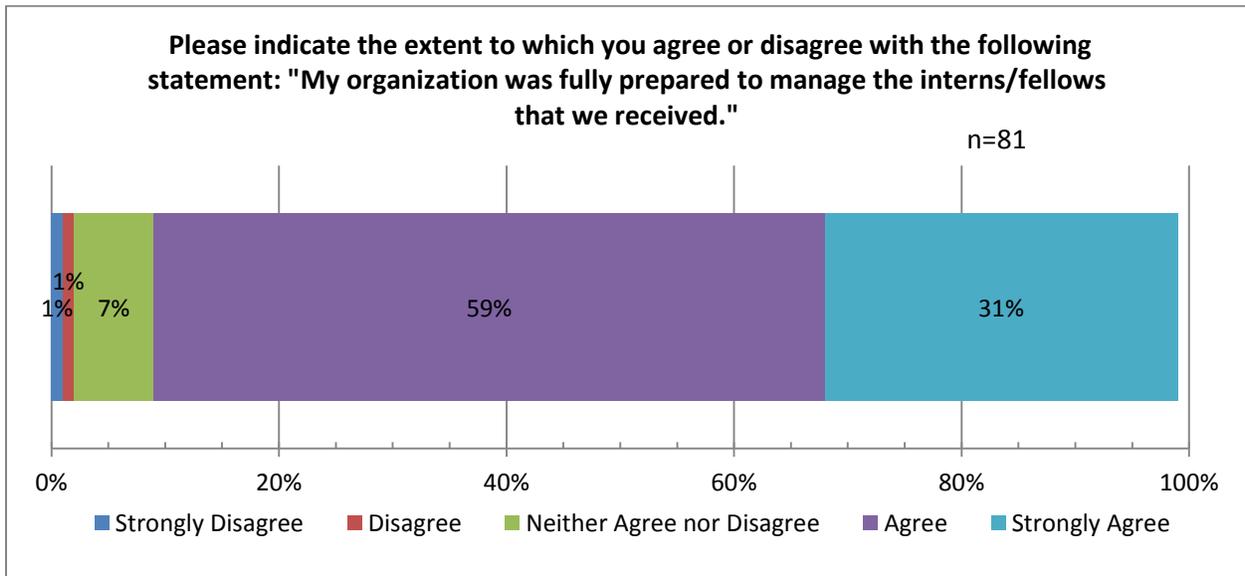
Small organizations with fewer than 20 employees accounted for 33% of responding host organizations, and 49% of responding hosts reported having fewer than 100 employees. Nearly a third (32%) of responding hosts indicated their organization had between 100 and 999 employees, and 19% of responding hosts reported having more than 1,000 employees in their organization (Figure 55).

Figure 55 - Number of Employees in Host Organization



Nine of ten (90%) host organizations agreed that their organization was fully prepared to manage the interns and fellows they received, and three of ten (31%) responding host organizations strongly agreed that their organization was fully prepared to manage the interns and fellows. About 2% of respondents indicated that disagreed with the statement that their organization was fully prepared to manage the interns/fellows they received, and another 7% responded neutrally (Figure 56).

Figure 56 - Preparedness of Host Organization



Project Methods & Approaches

Projects implemented with funding from the SEIP exhibited a variety of approaches to project design, participant and host recruitment, training, and almost every other aspect of project management. Because of the unstructured nature of the SEIP funding solicitation, grant-funded projects were able to develop or apply their own internship management approach. Although the multitude of variations in project implementation tended to inhibit comparative analysis of individual projects, when considered as a whole these varied approaches, experiences, and successes provide a wellspring of creative and innovative options which can be drawn upon for future use and continued program enhancement.

However, there are several common aspects of implementation and management that can be used to classify, contrast, and compare projects. This section highlights several notable approaches and experiences to the implementation of SEIP projects.

APPROACH TO IMPLEMENTATION

Based on the approach to recruitment and placement of interns and fellows, projects generally tended to fall into one of three categories:

- **Externally Focused Approach:** The most common approach to project implementation exhibited among the 15 award recipients in the higher education category was an externally focused approach. These award recipients had a large pool of current students and recent graduates available for placement as interns or fellows in outside organizations, and although many of these award recipients had a few internal placements (within the grant award recipient's organization) the majority of placements in these projects were with unaffiliated, or external, host employers.
- **Internally Focused Approach:** An internal focus was especially common among non-profit organizations and also among local government agencies. Projects fell into this category when the grant award recipient was also the primary host employer, and grant award funds were largely used to support an internal initiative or to conduct work activities for a host employer that was also the award recipient.
- **Facilitation Approach:** The facilitation approach category of projects included award recipients who acted in a matchmaking role, bringing together interns or fellows with host employers, neither of whom were directly affiliated with the award recipient. These organizations, which tended to be quasi-governmental non-profits or outreach divisions of government, likely faced the highest recruitment and organizational burden since virtually all program participants were external to the award recipient, a burden somewhat minimized by these organizations' experience in facilitative endeavors.

RECRUITMENT & SELECTION METHODS

Most projects reported the adoption of a traditional approach to the recruitment of interns and fellows—through advertising job announcements or position descriptions with career offices of colleges and universities, through the N.C. Employment Security Commission, and via press releases or other media channels. Interested applicants were often screened and to a lesser extent selected by the award recipient via a narrowing process, starting with resume submissions, phone interviews, and often concluding with final in-person interviews. The extent to which host employers were involved directly with the selection of the interns and fellows who would be working for them varied from almost no involvement to in-depth engagement at all steps of the selection process. Most, however, either made or approved final determinations from a handful of applicants after the award-funded organization substantially narrowed the field. The selection of interns and fellows appears to have been very competitive in many projects, with some projects reporting that nearly 10 times as many applications were received as there were positions to be filled.

Duke University’s Nicholas School of the Environment utilized a particularly unique process through which interns/fellows were matched with host employers. This project began with a focus group through which interested students assessed their skills, examined internship goals and objectives, compiled ideas about possible project types, and identified what experiential and career development opportunities the student participants sought. Then eight potential host employers were recruited to submit proposals for individual projects; proposals for 32 projects were received. The project then selected interns and fellows based on their fit with the requirements of the available projects. Among the results from this successful project was the establishment of the Nester Hosiery Sustainable Manufacturing Fellowship Partnership.

Some comments provided in the survey from host employers indicated different ways in which they were involved in the selection of interns and fellows.

“We provided a very detailed job description and statement of work for the project requiring an Intern/Fellow. We participated in the day long interview process. We hosted potential candidates at our facility, providing additional interview opportunities with other senior company managers.”

“We were allowed to review the initial list of interns and their qualifications, recommend which interns we would like to interview and participated in the selection process with the other agencies that were involved. An excellent process.”

QUOTES FROM QUARTERLY REPORTS

“We have received nearly 100 resumes from qualified candidates and have narrowed the field to 18 candidates through a phone interview process.”

NCSU Utilities & Engineering

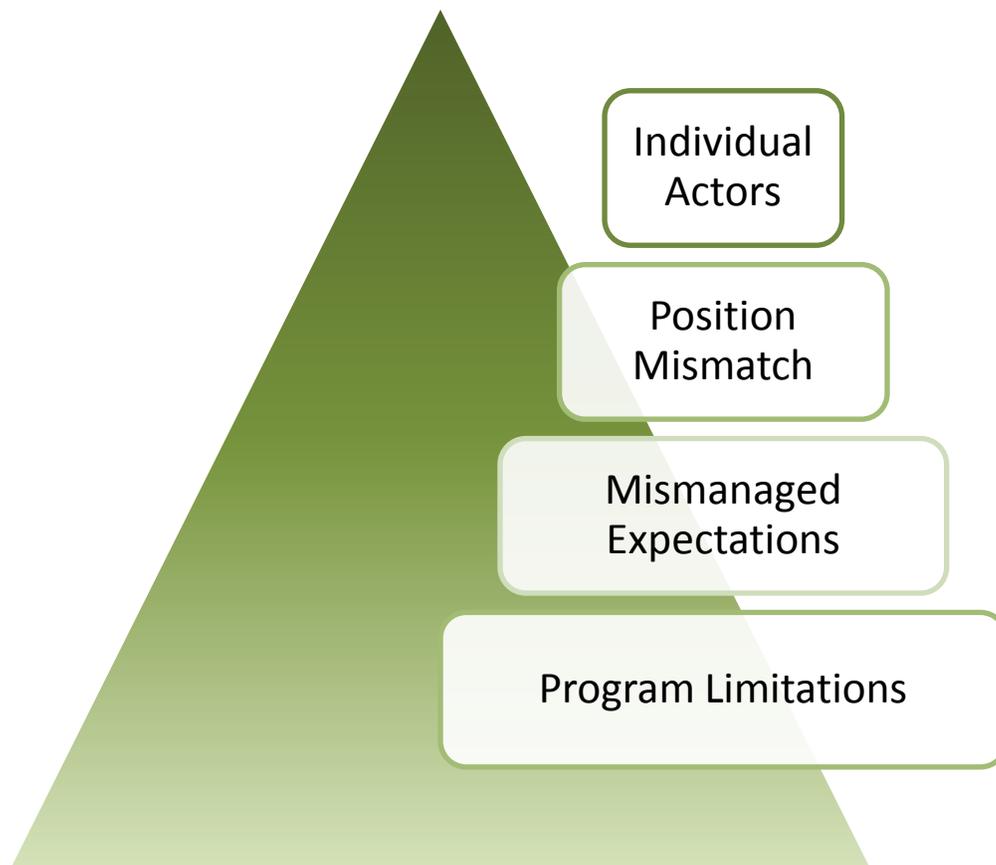
“Advertised for interns on NC Arboretum website and posted openings at State Employment Security Commission Asheville office; received 70 applications representing 16 schools. ... Hired 4 interns... This quarter, hired 7 additional students [for total of 10].”

North Carolina Arboretum Society

FACTORS INFLUENCING JOB PLACEMENT OUTCOME

The work experiences of interns and fellows covered a broad range of activities in many different sectors with varying degrees of satisfaction among both host employers and interns/fellows. Based on comments provided by survey respondents, a hierarchy of factors affecting the outcome of individual job placements was derived. This hierarchy, shown in Figure 57, provides a framework for identifying opportunities to improve the program’s success rate and, perhaps more importantly, isolate the locus of risks contributing to unsuccessful job placements so that any future programs may incorporate design elements that minimize these risks.

Figure 57 - Hierarchy of Factors Affecting Job Placement Outcomes



Individual Actors

At the most granular level, outcomes were affected by the level of preparedness of the **individual actors**. Although some interns and fellows were considered akin to superstars by their employers to the point of being nominated for national awards, others were unprepared for entry into the professional world (e.g.; being consistently tardy, failing to complete assigned tasks, or experiencing irreconcilable personality differences with their host employer). Most, however, fell somewhere in between these two extremes.

Likewise, the individual host employers influenced the outcome of specific job placements, with more positive outcomes achieved by employers who had:

- experience hosting interns;
- an appropriate number of specific and well-defined work activities prepared;
- a systematic approach for (1) orienting interns and fellows to the organization and their position; (2) managing and supervising interns/fellows; and (3) providing support and training through feedback processes, mentoring, and task guidance; and,
- an organizational culture where interns/fellows were treated more like a new employee than low-cost temporary labor.

Beyond effective screening, selection, and training there is very little that can be done systematically about the effects of individual actors on job placement outcomes. The capabilities and talents of the individuals involved will determine the degree of success regardless of the circumstances. Some examples extracted from survey comments:

"She was probably the best ambassador to your program that you could have. We have helped her run an on line campaign to become chosen as THE ECO STAR of the US and she is currently running in the top ten position. She also has taken my seat on a panel discussion at a sustainability conference at the end of the month... where she is the only non-professional/ student speaker at the conference!"

"Although I was unable to perform the job for which I was hired, there was plenty of work to be done in the field of building science so I stayed busy throughout the internship and it ended in full-time employment for me."

Position Mismatch

A slightly broader level of factors affecting job placement outcomes was the fit of the intern or fellow with the host employer's position, or whether there was some sort of **position mismatch**. These factors are not necessarily specific to either the employee or employer, but arise from the appropriateness of one for the other. For instance, the survey produced several comments from host employers about the potential for added benefit from having interns or fellows working in their area of interest, and having the skills or knowledge necessary for the intended work tasks. There were many comments among the survey responses that reflected the challenges posed at this level, including:

INDIVIDUAL ACTORS

Comments from the survey

"The host company did little to support the internship, did not follow the written recommendations, and [the placement] did not lead to employment."

"We received an intern who had only basic computer skills while we needed someone with strong skills in MS Office applications."

"...very unprofessional and displays a poor work ethic and 'don't care' attitude; inconsiderate of our time...which is limited and valuable."

"...my employer is not well organized and therefore not terribly helpful in offering direction for the internship."

"My position wasn't a good fit for my background and interests..."

"I entered my project with little to no experience in the subject matter with which I was supposed to address."

"Our intern is looking for employment... in an area different from the biomass energy that we research."

Mismanaged Expectations

While position mismatch factors are attributable to differences between the intern/fellow and the employment position, **mismanaged expectations** represent a broader and more complex risk factor originating in the relationship among the intern/fellow, the host employer, and the coordinating organization (i.e., grant award recipient). These issues arise when each of these three parties has a different expectation and understanding of the job placement or project as a whole.

The common source of these factors is a lack of clear and consistent communication about the roles, responsibilities, and requirements placed on the intern and the host employer as they relate not only to the employment relationship, but also to the relationship between the coordinating organization and each party to the job placement. The key to identifying factors affecting outcomes at this level is acknowledgment that the goals and interests of the coordinating organization (i.e., grant award recipient) are not always aligned with those of the interns/fellows or host employers in the short term.

Program Limitations

The final, broadest, and most rigid set of factors affecting job placement outcomes are the **program limitations** which were most often experienced in the form of regulatory or legal constraints. This group of factors includes items such as wage requirements imposed by the Davis-Bacon Act, insurance requirements that restricted the activities of interns and fellows, and other federal rules which constrained the scope of eligible work activities for individuals employed by the project.

"Less stringent reporting (i.e., Davis Bacon) for sub-contractors. We should only report on companies we do direct business with."

MISMANAGED EXPECTATIONS

"Participating organizations should have very clear expectations and measurable projects outlined going in. There should be frequent interaction between the school-student-sponsor."

"I think that in the future a more thorough and well laid out plan would need to be done on what exactly our role is and what time constraints need to be set up and planned ahead of time. There was no real black and white 'this is what we expect of you' "

"The program could be improved by better advertising, in which companies are sought out to act as host organizations with the understanding that any interns need employment after the internship has ended."

"[I] strongly believe that my host organization will create a position based on my work. However, I have felt I could be more adequately prepared to compete for that new position..."

“I had to avoid projects that would have really boosted my experience because they would have been considered both ‘federal’ and ‘major’.”

“Since the interns were not employees of the City, our risk management department would not let them drive a city vehicle. The City has 55 buildings... and transportation to and from these facilities was a must.”

NATURE OF THE WORK

The work supported by the SEIP can be categorized in multiple ways, but two characteristics particularly relevant to the design and implementation of projects under the SEIP are the purpose of the position and the type of work activities conducted.

Purpose of Position

Job placements tended to be oriented towards either (1) completing a discreet set of finite tasks, or (2) performing functions central to the ongoing operation of the host employer. These orientations in purpose present tradeoffs in the attainment of program goals and outcomes. For instance, performing energy audits for a host employer not in the energy audit business will likely result in energy efficiency improvements and accrue savings—direct and quantifiable outcomes—but it is unlikely that the position would be continued once the audits and resulting improvements are completed.

Alternatively, job placements into positions with a focus on activities central to the host employer may not produce the same easily discernible outcomes in kWh and dollars saved, but interns or fellows in these types of positions would be far more likely to secure full-time employment with their host employer. In spite of this tradeoff, neither orientation is inherently more desirable or beneficial than the other. Current students, for example, are unlikely to be available for immediate full-time employment at the conclusion of their internship, but could still gain valuable experience completing work tasks on a contractor-like basis.

Work Activities

The actual work activities assigned with job placements through the program can also be grouped into categories. Some interns and fellows had hands-on involvement with the production or manufacturing activities of their host employer (e.g., producing biodiesel) or constructing renewable energy systems (e.g., solar electric or water heating). A large number of interns and fellows received job placements in which they performed analytical activities such as energy audits or other research and analysis in support of their host employer. There were also many placements where strategic planning or other development planning was the primary focus, and the final group of work activities includes those placements primarily involving the performance of education and outreach activities.

TRAINING

Training is a natural part of a program like the SEIP that was implemented for the purposes of enhancing education, providing on-the-job experience, and encouraging recent college graduates and current students to pursue an energy-related career in North Carolina. There are two approaches to examining

training offered to interns and fellows that participated in the program: centered on the source of training and on the focus of training.

Training programs originated from three different sources during the implementation of the SEIP. The State Energy Office administered regional and statewide training sessions which were open to all interns and fellows. These sessions mostly targeted technical aspects of conducting energy audits, and some survey comments from interns and fellows indicated their interest in receiving training of a more general nature regarding energy policy, technology, and regulations.

In addition to program-wide training there were different levels of training provided by the grant-funded projects themselves. These trainings varied by the type of project, with projects primarily using interns for internal work generally providing training on the specific work they assigned, while projects which placed interns with outside organizations and businesses on occasion conducted training more oriented towards the interns' or fellows' personal or professional development. Likewise, organizations that received interns or fellows tended to offer some amount of training, most often specific to the particular job which was to be assigned.

Considering the focus of the training available to interns and fellows, there are three categories into which training may be classified. The most broadly oriented training, of benefit to all interns, was training conducted on topics of career/professional development. More specific training also occurred to increase interns' and fellows' technical knowledge and skills, and the most specific training was conducted to provide interns and fellows task-specific education. In responses to the survey, interns and fellows indicated their desire for supplemental training in the areas of: building audits, lighting, carbon reduction, energy management, and performance contracting.

Conclusion

ATTAINMENT OF SEIP GOALS

Enhanced Education: The SEIP program was intended to provide practical educational experiences beyond what student learned in the classroom. About half of the award recipients responding to the survey indicated that they had no internship or fellowship program prior to receiving SEIP funding, and 42% of host organizations responding to the survey indicated that they typically did not host any interns, so the SEIP clearly resulted in new opportunities for students to obtain internships. Likewise, from the perspective of the interns and fellows, the SEIP expanded their education, with 80% of student participants responding to the survey reporting that the SEIP did not fulfill a degree requirement and 64% reporting that they had not previously sought an internship.

Energy-related Activities: Perhaps the most revealing results from the survey regarding the SEIP's energy-related activity target was the host employers' increase in satisfaction with students' energy knowledge over the course of the internship or fellowship. This increase in knowledge was reflected in survey responses from interns and fellows as well, with more than 90% reporting that their internship/fellowship was "effective" or "very effective" at increasing their energy knowledge.

Placements at For-Profit Businesses: While placement of interns and fellows at for-profit businesses was emphasized in the program solicitation, other organization types were also eligible. For profit businesses represented the largest portion (38%) of host organizations responding to the survey, and more than 57% of award recipients reported placing interns or fellows at for-profit businesses.

Full-time Employment in Energy: The benefit of the SEIP in assisting student participants with finding full-time post-college employment was very apparent, with 20% of responding student participants reporting that they already have obtained full-time employment as a result of the SEIP, and another 58% indicating that they felt their participation in the SEIP "definitely" or "probably" would assist them in finding employment. Host employers echoed this sentiment, with nearly 20% of those responding to the survey reporting that they had made a job offer following an internship or fellowship—15% of these hosts reported creating a new position—and another 38% reported that they wanted to make an offer but were unable to at the present time. This work appears to be predominantly energy related, with responding interns and fellows reporting that an average of 88% of their work in these positions would be energy related.

Wide Geographical Coverage: Internship and fellowship placements were located in at least 47 counties across the state, and while there were definite areas of concentration in a few counties the program's impacts were widespread. Among the 3J Tiers, 70% of the counties classified in both Tier 1 and Tier 2 received internship or fellowship placements, and 30% of Tier 1 counties received intern or fellow placements.