

# BPC-AE: Scaling the STARS Alliance: A National Community for Broadening Participation through Regional Partnerships

## Annual Report 2013



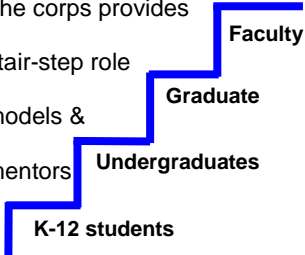


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<b>The STARS Alliance:</b> Advancing innovation through <b>regional partnerships</b> to broaden participation		
<p><b>STARS Leadership Corps</b>                      Tiered participation of students, professionals, &amp; educators in research and civic engagement catalyzes regional partnerships</p> 	<p><i>Research, Women's, &amp; Minority Universities</i></p> <p><i>Industry</i></p> <p><i>Community Colleges</i></p> <p><i>Community &amp; Professional Organizations</i></p>  <p><i>K-12</i></p>	<p><b>Tiered Participation</b></p> <p>The corps provides stair-step role models &amp; mentors</p> 
<b>STARS Celebration:</b> Building community for STARS and national BPC efforts		
<b>GOALS:</b> Recruiting, Bridging, and Retaining underrepresented people in computing		

Report prepared by the Evaluation Team:


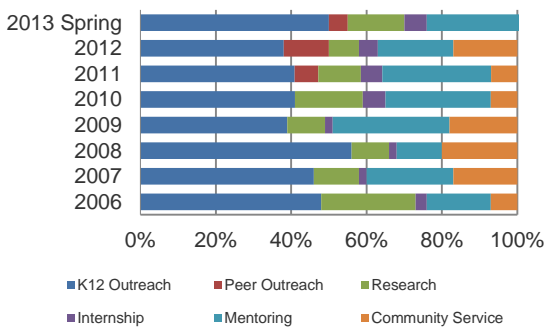
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**Table 1: STARS Cumulative Success August 2006-August 2013**

National Resource for BPC Community of Practice	
<p><i>Supported 50 colleges &amp; universities</i> integrating student-led regional engagement in computing  <b>STARS Online</b> <a href="http://www.starscomputingcorps.org">www.starscomputingcorps.org</a> digital library collection of <b>70+ resources</b>                      A vital communication tool between individuals, between &amp; across school groups</p> <ul style="list-style-type: none"> <li>▪ 2,144 total members</li> <li>▪ 44 School Groups</li> <li>▪ 28 Affinity Groups</li> </ul> <p><b>Dissemination</b>                      Produced over 69 <i>journal articles, 55 conference papers, 20 posters, and 200 other media products</i></p>	
Organizational Capacity Building	
<p><b>Created new communities</b></p> <ul style="list-style-type: none"> <li>▪ 3 NEW Alliances sponsored institutions in Fall 2013; 10 in 2012; 17 in 2011</li> <li>▪ 26 institutions have institutionalized STARS practices</li> <li>▪ 190 regional partnerships</li> </ul> <p><b>Celebration Training &amp; Development</b></p> <div style="display: flex; align-items: flex-start;">  <div> <p>8 annual Celebrations with 2,044 participating students, faculty, community and industry partners</p> <ul style="list-style-type: none"> <li>▪ <b>378 workshops</b> in technical excellence, leadership, community &amp; civic engagement</li> <li>▪ <b>Industry Expo</b></li> </ul> </div> </div>	
Individual Impact	
<p><b>STARS Computing Corps</b>  <b>1,346 Corps</b> students since 2006</p> <ul style="list-style-type: none"> <li>• 38% Black, 12% Hispanic; 46% women</li> <li>• 40% participated in REUs                             <ul style="list-style-type: none"> <li>◦ 79% acceptance rate</li> </ul> </li> <li>• Over <b>76,000 outreach attendees</b></li> </ul> <div style="margin-top: 10px;"> <p>2013 Spring</p>  <p>0% 20% 40% 60% 80% 100%</p> <p>■ K12 Outreach ■ Peer Outreach ■ Research                  ■ Internship ■ Mentoring ■ Community Service</p> </div> <p><b>Pair Programming @ 16 schools, 143 classes</b>                      with over 6,508 students</p> <p><b>Mentoring</b></p> <div style="display: flex; align-items: center; margin-top: 10px;"> <div style="background-color: #003366; color: white; border-radius: 50%; width: 40px; height: 40px; display: flex; align-items: center; justify-content: center; margin-right: 10px;"> <p style="font-size: 8px; margin: 0;">37 Schools Since 2006</p> </div> <div style="border: 1px solid #003366; padding: 5px; margin-right: 10px;"> <p style="font-size: 8px; margin: 0;">402 Corps Mentors</p> </div> <div style="border: 1px solid #003366; padding: 5px;"> <p style="font-size: 8px; margin: 0;">804 Corps Mentees</p> </div> </div>	<p><b>STARS Celebration 2013</b>  <b>Celebration Builds Community &amp; Inspires</b></p> <ul style="list-style-type: none"> <li>• 84% of SLC students felt the Celebration built community</li> <li>• 93% of faculty felt that Celebration inspired them to become more involved in BPC efforts</li> </ul> <p><b>STARS Leadership Corps Students*</b></p> <ul style="list-style-type: none"> <li>• 86% now considering <b>graduate school</b></li> <li>• 91.6% Improved my leadership skills</li> <li>• <b>Academic performance</b> improved</li> <li>• 85.9% strengthened my computing <b>research</b></li> </ul> <p><b>STARS Develops Faculty*</b></p> <ul style="list-style-type: none"> <li>• STARS promoting connections among faculty</li> <li>• Helps faculty better plan their career &amp; research</li> <li>• Boosts computing skills &amp; passions</li> <li>• 100% are dedicated to the mission of STARS</li> <li>• STARS has allowed faculty to help students gain a deeper understanding and appreciation for STEM</li> </ul> <p style="text-align: right; font-size: 8px; margin-top: 20px;">*Spring surveys 2013</p>

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## 1 Introduction

The **STARS Alliance** is a successful community of practice for student-led regional *engagement*<sup>1</sup> as a means to broaden participation in computing (BPC). The Alliance has demonstrated the **STARS Computing Corps** (the Corps) as a model for catalyzing regional partnerships through the tiered participation of students, professionals and educators in co-curricular engagement and service learning. The STARS Initiation Project (NSF Award #0540523, 2006-2009) supported the piloting of the SLC and other STARS practices at 10 Southeastern colleges and universities. The STARS Extension Project (NSF Award #0739216, 2008-2012) extended STARS participation to more than 20 Southeastern colleges and universities and added activities for broadening participation within the computing faculty ranks. The STARS Scaling Project (NSF Award #1042468, 2009-2016) is establishing the STARS Alliance as a national resource for BPC. Evaluation outcomes consistently demonstrate participation in STARS activities, particularly the Corps, enhances commitment and academic success in computing for diverse student groups. The **STARS Scaling Project** focuses on the national adoption of Corps practices to bring about a computing workforce that is larger, more diverse and with broader skill sets.

Note that the STARS grants have been awarded on a calendar year cycle (beginning in January), but the STARS programs operate on an academic year cycle (beginning in August). Therefore, in each of the sections below, we report on two levels of activities and outcomes. At level one, we report the activities of the STARS Scaling Project during Year 3 of the grant, January 2013- December 2013. At level two, we report the cumulative outcomes of the STARS Alliance from August 2006 - August 2013 with emphasis on the most recent academic year, August 2012 – August 2013.

Highlights of STARS activities and outcomes are provided in Table 1 (above). Section 2 summarizes outcomes on a national, organizational, and individual basis. An overview of the STARS Alliance is given in section 3. Section 4 provides a summary of the STARS Scaling Project activities during 2013. Detailed description of national, organization, and individual outcomes is given in sections 5, 6, and 7 respectively; section 8 describes project progress to date and outlines future directions.

## 2 Summary of Outcomes

### Alliance National Impact

The STARS Alliance is a national resource for the recruitment, retention and graduation of diverse students in computing through student-led regional engagement. Since 2006, the Alliance has supported 51 colleges and universities to integrate student-led regional engagement into computing departments through a co-curricular program called the STARS Computing Corps [referred to as the STARS Leadership Corps (SLC) in prior reports]. Many of these schools have institutionalized the Corps via student organizations and courses, as well as institutionalized STARS demonstration projects, including mentoring and pair programming. The Alliance fosters national adoption of student-led regional engagement by providing: seed funding to computing departments that implement the Corps; a community of support through the STARS Online social network, website, and digital library; and the annual STARS Celebration leadership conference. Current outcomes include the following.

### STARS Scaling Project Year 2 – January to December 2013

- STARS Online has 352 active students and 180 faculty in 2013
- 3 New Institutions joined in Fall 2013: University of Louisiana Lafayette, Colorado Mountain College, and The Cooper Union
- STARS Digital resources collection [<http://www.starsalliance.org/resources>] contains more than 70 resources for implementing STARS practices, including a Corps Handbook, Leadership Seminars, and an Evaluation Toolkit.
- STARS Computing Corps, the **nonprofit organization**, has been established to sustain Alliance activities via an active STARS Partners Program for developing supportive relationships. Key partnerships include **ITology, Citizen Schools, WIT Foundation, EMC<sup>2</sup>, Logical Advantage, Blue Cross Blue Shield of SC, Google, CA Technologies, CRA, and Anita Borg Institute.**

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<sup>1</sup> The National Survey of Student Engagement (NSSE) defines *engagement*: “Student engagement represents two critical features of collegiate quality. The first is the amount of time and effort students put into their studies and other educationally purposeful activities. The second is how the institution deploys its resources and organizes the curriculum and other learning opportunities to get students to participate in activities that decades of research studies show are linked to student learning.” <http://nsse.iub.edu/html/about.cfm>

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### STARS Alliance – August 2006 to August 2013

- Dissemination: Produced over 69 *journal articles*, 55 *conference papers*, 20 *posters*, and 200 *other media products* (e.g. *podcasts*, *news articles*, *demonstrations*, etc.)
- 8 STARS Celebrations: **2,044 student, faculty and partner participants**.

#### **Alliance Organizational Capacity Building Impact**

Computing departments receive two-year seed funding to participate in the STARS Alliance, requiring them to implement the Corps every semester and implement the STARS mentoring and pair programming demonstration projects at least one semester, with the goal of institutionalizing these practices. Departments can continue to receive funding to institutionalize the Corps and support STARS scaling by contributing to nationally available resources. Participation enhances the capacity of computing departments to: 1) interweave engagement throughout the undergraduate and graduate student experience; 2) promote student-led regional engagement (e.g., with K-12, industry, and the community); 3) recruit and advance diverse student groups in computing by engaging in a community of practice (e.g. Corps, mentoring, research experiences, STARS Celebration, online social network, Affinity Groups, digital library). Outcomes highlights include the following.

### STARS Scaling Project Year 2 – January to December 2013

- New leadership in STARS:
  - The Principal Investigator role transitioned from Teresa Dahlberg to Jamie Payton in July 2013
  - The STARS Executive Steering Committee leads Affinity Groups in 7 Key Areas: Recruiting, Retention, Faculty Development, Community, Sustainability, Leadership, and Evaluation & Dissemination.
- 41 colleges and universities are actively participating in the STARS Alliance; 3 new joining in Fall 2013.
- An **expanded online evaluation toolkit** continues to provide support for student-led participatory evaluation research with new monthly webinars designed to teach research and evaluation methods beyond Evaluation Assistants to a broader array of stakeholders interested in broadening participation in computing.
- **New Scorecard Ratings** monitor and evaluate institutional performance as well as overall Alliance performance, with 29% performing at the Gold Level of exceeding expectations [see section 6].
- The number of symbiotic grants awarded to STARS institutions has doubled from 2012.

### STARS Alliance – August 2006 to August 2013

- STARS has catalyzed and/or supported more than 34 symbiotic grant projects at universities and colleges within and external to the Alliance
- More than **50 schools have implemented the Corps**
- **26 schools institutionalized the Corps**, by integrating into course or program requirements, responsibilities of permanent staff, or the mission of student organizations.
- Faculty Surveys consistently show that STARS faculty are **expanding their professional networks** and **forming meaningful collaborations** with others for BPC efforts.

#### **Alliance Individual Impact**

The primary Alliance activity is the STARS Computing Corps, aka the Corps, a co-curricular service-learning program that fosters student-led community engagement. College and university students join a Corps for an average of two semesters and perform projects (e.g. K-14 outreach, mentoring, tutoring, pair-learning, research, internships, community service) for an average of 5 hours a week. Professional development and community building opportunities are provided to students and faculty through partnerships and the STARS Celebration.

### Scaling Project Year 2 – January to December 2013

- **352 Corps students** participated in Fall 2013 across 41 colleges and universities, with 3 new colleges and universities joining and recruiting students in Fall 2013.
- 4 students were supported by **STARS Research Experiences for Undergraduates (REU)** and 40% of SLC students participated in other REUs (spring 2013), up from 35% the prior year.

### STARS Alliance - August 2006 to August 2013

STARS evaluation results between 2006 and 2013 demonstrate that participation in the SLC has a **significant positive impact** on:

- Computing efficacy (belief that effort will lead to success in a computing curriculum)

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- Perceived social relevance of computing (belief that computing has social as well as technical relevance and can be used to benefit individuals and society)
- Computing commitment (intention to remain in the field of computing through college and into the workplace)
- Computing identity (a feeling of inclusion in a larger computing community)
- Self-reported grade point average.
- **Longitudinal Achievement: 19 former SLC members are recipients of prestigious awards** and scholarships: 8 National Science Foundation Fellowships, 3 Honorable Mentions; 5 US Department of Education Graduate Areas of National Need awards; 1 National Aeronautics and Space Administration award; 1 Department of Homeland Security Fellow; 1 Microsoft Fellow
- 36% of Corps students have participated in an REU, with a 79% acceptance rate among the participating group.

### 3 Overview of the STARS Alliance

The Students & Technology in Academia, Research, and Service (STARS) Alliance is a nationally connected system of regional partnerships among higher education, K-12 schools, and leaders in the nonprofit, business, and community sectors. The Alliance comprises a **vibrant community of practice** for broadening the participation of women, under-represented minorities, and persons with disabilities in computing through student-led regional engagement. The STARS Scaling Project goal of supporting 50 STARS colleges and universities has been achieved (20 existing and 30 new). Our collective mission is to spread our community of practice, mainly the STARS Computing Corps, in our efforts to increase computing student diversity, enrollments, and graduation rates. These schools will sustain the Corps through curricula. A vibrant STARS community of practice flourishes through online social networking and a STARS practices digital library collection. **The STARS Computing Corps Nonprofit** builds upon the prior STARS grants to involve more people and produce greater, sustained outcomes, with less funding, ultimately resulting in the sustenance of the annual STARS Celebration- the primary vehicle for engaging and supporting universities in the STARS Community.

Alliance activities advance the **STARS Central Values** of

- ❖ **Excellence** – Technical skill, confidence and interest in computing; Workforce preparation; Innovation & advancement.
- ❖ **Leadership** – Soft skills, including management, teamwork, writing, communication, and work / life balance.
- ❖ **Community** – A sense of belonging and a common computing identity not tied to gender, race, ethnicity or physical abilities.
- ❖ **Service & Civic Engagement** – Sense of responsibility to use computing to serve society; Social relevance of computing.

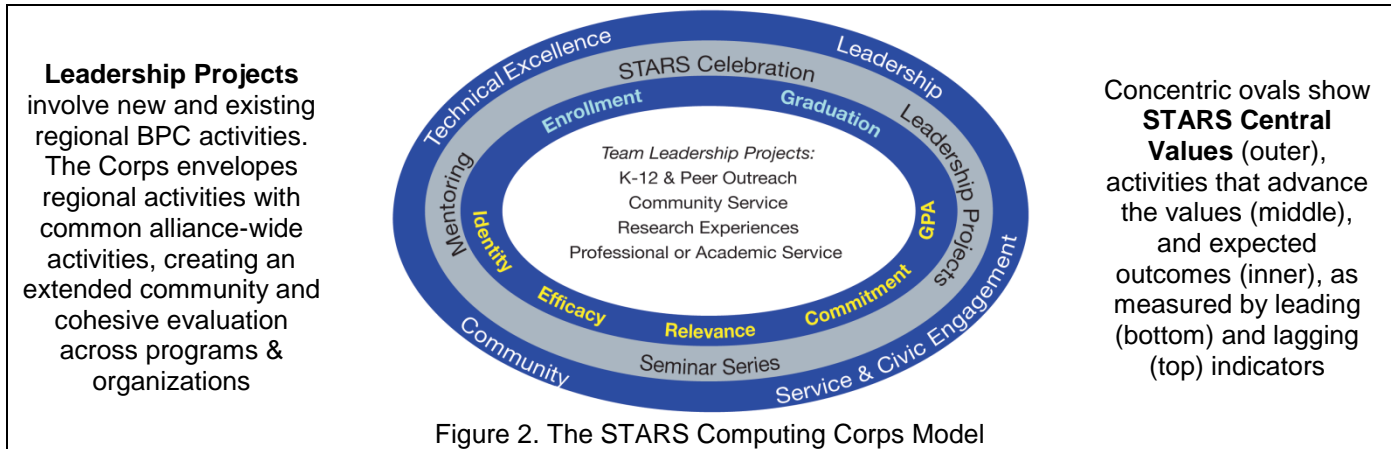
Figure 1. STARS Central Values

Each regional community is led by a STARS member college or university with local partners including K-12 schools, industry, and professional and community organizations such as the Girl Scouts, Citizen Schools, the Black Data Processors Association, and ACM-W. STARS Alliance activities are designed to advance the **STARS Central Values** of developing *Technical Excellence*, *Leadership*, a sense of responsibility to use computing in service to society through *Civic Engagement*, and a sense of belonging to a *Computing Community*. These values are effective for recruiting, bridging and retaining under-represented groups in computing. Collaboration within STARS regional communities is catalyzed by the **Corps**, an innovative program that envelops new and existing regional programs for BPC (e.g., K-12 outreach, community service, research experiences) with common alliance-wide activities. The Corps is implemented at all STARS schools as a repeatable one-year program that begins and ends with an alliance-wide annual leadership conference called the **STARS Celebration**. The Celebration inducts students, faculty, and partners into the Corps with activities built around the STARS Central Values.

During the Celebration, the Corps is called to action to *recruit, develop and become the next generation of computing professionals*. The Corps responds by undertaking leadership projects, such as: Outreach to pre-college students to inform and excite them about computing; College outreach to support and advance college students; Community service to use computing skills to serve society; and Research Experiences and Internships to advance innovation and to serve by improving one's own expertise in computing. All projects include written reflection, presentation to peers, and outreach components. Student teams carry out leadership projects during the academic year at their home schools, spending an average of 5 hours per week, including participation in a seminar series centered around the STARS Central Values and tiered peer mentoring (*have a mentor, be a mentor*). Corps students and faculty showcase successes at the next Celebration. Our theme of **Advance**

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**Yourself, Advance Others** encourages student participation over multiple years, accepting support when needed and giving back when able.



The Corps pools resources and enables **cohesive evaluation** across disparate BPC programs spanning multiple years and diverse institutions and populations. The Corps employs **Tiered Participation** among youth, academics, and professionals, creating stair-step role models and mentors. For example, industry professionals work with students to offer computing programs for high school students; and faculty guide graduate students to mentor undergraduate research. Leadership activities catalyze regional partnerships and sustain them through a common purpose.

The STARS Alliance **fosters adoption and scaling of BPC practices** by hosting workshops at the STARS Celebration. The Alliance further supports the STARS Mentoring and Pair Programming by offering participant stipends to adopters. The **STARS Tiered Peer mentoring** was developed by Dr. Nate Thomas at USFP to support underrepresented students in computing. Using principles from his Ethnic-based Mentoring Model, upper-class students mentor first year students. A holistic approach is used to support mentor and mentee college adjustment, GPA, retention, graduation and career preparation. Dr. Laurie Williams at NCSU leads the **STARS Pair Programming (PP)** to train and assist faculty to use Pair Programming to deepen student learning.

Figure 3. STARS Scaling Project Goals and Outcomes

- ❖ **Retaining & Recruiting** under-represented populations into computing
- ❖ **Bridging for under-represented populations to increase readiness to enter computing graduate programs and careers**
- ❖ **Advancement of computing faculty role models to increase faculty research and grants scholarship, tenure, and promotion.**
- ❖ **Sustainability of the STARS Community to institutionalize Corps practices at STARS member colleges and universities**
- ❖ **Dissemination of STARS activities, outcomes, and assessment to promote broadening participation through regional communities and Corps practices**
- ❖ **Scaling of the STARS Community for national adoption and institutionalization of the STARS Leadership Corps, participation in the Celebration, and regional Celebrations**

## 4 Summary of Scaling Project Activities

The STARS Alliance has scaled to 41 institutions during the 2012-2013 academic year with a new cohort of institutions (both veteran and new to the Alliance), and is embarking upon several new directions as a result of our prior experience, expansion across the country, and renewed focus as we transition into an organization fully supported by a non-profit organization in 2016. We successfully created and deployed STARS Online and Digital Library, hosted the 8<sup>th</sup> STARS Celebration, and streamlined our evaluation plan's focus on assessing STARS as a

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national resource for BPC initiatives. In addition, we are refining the marketing and development plans for the STARS non-profit organization. The sections below briefly highlight the Scaling Activities during the second year of the grant.

### **STARS Online Presence and Community**

In 2013 we overhauled our website to improve the ability of both STARS members and the general public to learn about STARS and access specific pieces of information. The site serves as the main resource for STARS information and dissemination, such as how to join STARS, our STARS manual, and the streamlined evaluation toolkit, with internal and external resources. The mission of the Online Community is to be the hub for online connectivity and exchanges, fostering greater communication and engagement within and across STARS.

Within the past year, the activities have included:

- A usability test of the website, online community, digital library, and evaluation toolkit, which led to a variety of modifications to improve information accessibility on the various site components.
- Expansion of the STARS manual to include links to a variety of resources and examples, such as examples of Outreach.
- Continued improvements of the online community, such as exploring real-time conferencing capabilities to improve the ability of groups in different locations of STARS to meet and to hold remote events.

### **Celebration 2013**

The STARS Celebration continued in 2013 with a wealth of workshops and keynote speakers. Industry and community supporters included WIT Foundation, Blue Cross and Blue Shield, EMC<sup>2</sup>, Logical Advantage, CA Technologies and Google. In addition, academic sponsors such as IT-ology, Computing Research Association, Anita Borg Institute, NC State Computer Science Department, and the Arizona State Ira A. Fulton School of Engineering. In addition to an extensive program, STARS Awards were issued to individuals and institutions that made significant contributions to the core mission and values.

### **New Cohort of Institutions**

Forty-one schools participated in STARS Scaling for the 2012-2013 academic year. Three new schools expressed interest in Alliance Affiliation based on their geographic and demographic profiles including schools in which STARS Alumni had become new faculty.

- The Cooper Union is starting a Computing Corps. The former Principal Investigator, Teresa Dahlberg, accepted a new role as Dean of the College of Engineering, where the Corps will provide an expansion for serving computing engineering students.
- Colorado Mountain College and the University of Louisiana at Lafayette explored its interest in STARS during Celebration 2013 and kicked off their Corps in fall 2013.



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### 501C3 Organization

The STARS Computing Corps as a nonprofit organization was established in 2011 to leverage the annual STARS Celebration, to expand the STARS Alliance and increase its participation and visibility beyond the timeframe of the STARS Scaling Project. Our strategy is to grow the Alliance and its organization in a controlled and manageable fashion. Our vision is to target areas of strategic geographic development.

- The Celebration includes an Industry Expo for partnering with industry interested in the STARS talent pool.
- A STARS Partners program is underway to collaborate with like-minded community and industry leaders, including IT-ology.
- A new website has been revamped after user testing to reflect the STARS Computing Corps brand ([www.starscomputingcorps.org](http://www.starscomputingcorps.org)).

### Evaluation

Recognizing the inherent challenges faced in conducting a multisite evaluation, the Evaluation Team continues to manage an in-depth training program for Evaluation Assistants, who serve as project liaisons for the assessment of local-level Alliance activities. Based on feedback and user surveys, we have streamlined our online evaluation toolkit containing sample documents, content slides, and helpful resources. An outward facing evaluation toolkit was also developed to support the BPC community at large, such as teachers and community organization leaders, who may be interested in assessing their symbiotic projects. The monthly topical webinars to enhance evaluation content and application knowledge have continued, with digital recordings available online. Evaluation has three primary aims: 1) to monitor and report STARS Alliance progress towards goals; 2) to train and support Alliance institutions in assessment of STARS practices for their own project dissemination; and 3) to disseminate effective practices and lessons learned. Our achievements and progress in 2012-2013 are as follows.

The Evaluation Toolkit for Evaluation Assistants, the internal support for monitoring and evaluating STARS, was user tested and streamlined for ease of access to support materials [[www.starsalliance.org/stars-evaluation-assistant-toolkit](http://www.starsalliance.org/stars-evaluation-assistant-toolkit)]

- An interactive database of STARS individuals was created and visualization display tools are being created for the STARS website, which provides efficiency in reporting for the evaluation team and interactive descriptive tools for public use.
- STARS Activity Reports were fully integrated into the website and an App for mobile devices was created for ease and immediate reporting in the field (i.e. during outreach events); the App will be launched in January of 2014.
- A STARS Dissemination tracking tool was created and integrated into the website; it will be fully operational in 2014.
- Evaluation Assistants conducted research projects and disseminated results at Celebration 2013.
- A new study of individual outcomes was conducted in summer 2013; a publication is underway.

## 5 National Impact of the STARS Alliance

### Celebration 2013: Atlanta, Georgia

The annual STARS Celebration, which is held each August, is our hallmark event, and serves to both kick-off and conclude our academic activity cycles by showcasing successes from the prior year and by preparing for the upcoming new year. The conference is a significant part of the Alliance in that it communicates our key values by showcasing excellence, leadership, civic engagement and community through posters, presentations, keynote speakers and workshops. Participants include students in the STARS Computing Corps, faculty leaders within the STARS Alliance, and Alliance partners, including BPC Alliances (A4RC, EI Alliance, CRA-W), as well as regional K-12 and community colleges. The Celebration has been central to building a computing community among students from underrepresented groups and faculty. New Corps students are introduced to mentoring, leadership skills, research experiences, graduate school preparation, professional development, and civic engagement. Returning Corps students assist with training new students by sharing their experiences and engaging in leadership roles. New faculty and partners are oriented to the Alliance model and provided opportunities for networking and professional collaborations. Working in teams, the students choose their academic year assignment during the conference, while faculty Academic Liaisons determine their Corps' objectives and plan for the upcoming year. In 2013, there were 334 participants. All attendees are invited to take a survey following the Celebrations; student interviews are also routinely conducted at Celebrations; highlights are presented in Figures 5

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and 6 below. In 2013, faculty focus groups were also conducted. Interview and focus group themes from 2013 are discussed in Section 7.

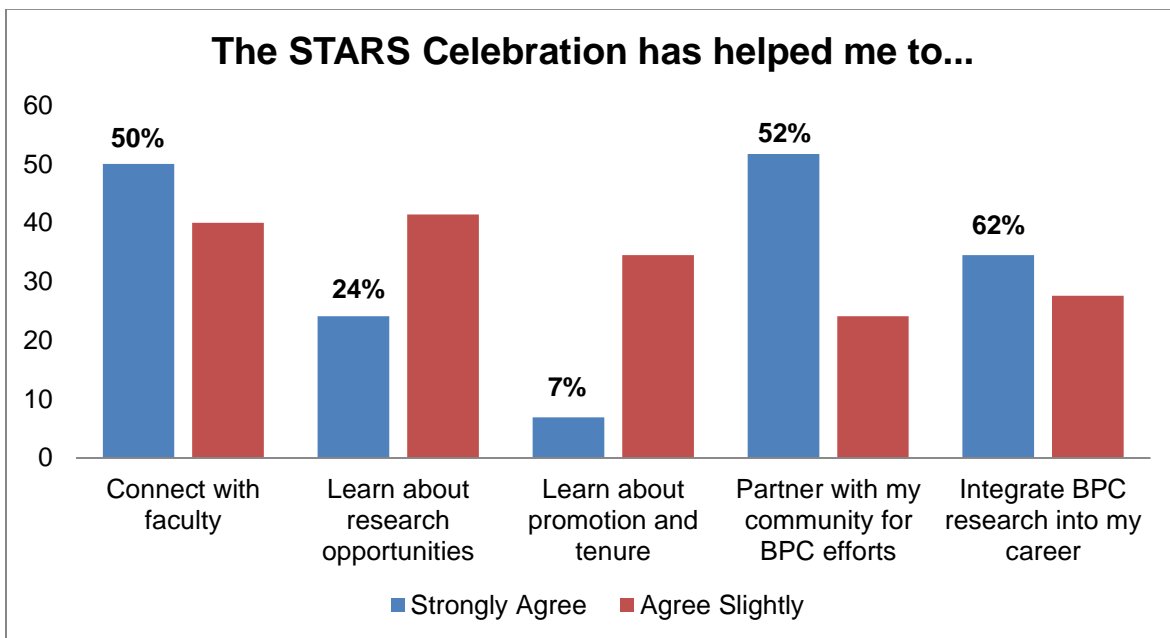
The STARS Celebration 2013 included a number of workshops with collaborative partners. One of the most popular workshops was the Women in IT Panel led by: Marva Bailer (IBM Smarter Planet Industry Solutions), Viki Hamilton (Senior IT/Operations Executive), Denise Reese (Macquarium Intelligent Communications). This plenary session discussed the career paths of the panelists as well as provided individual and historical perspectives regarding career development and personal growth. Two of our speakers, Dr. Dilma DeSilva and Dr. Yolanda Rankin, are Association of Computer Machinery (ACM) Distinguished speakers.

Figure 4. STARS Celebration 2013 Highlights

2013 Theme & Features	Keynotes	Program Chairs	Local Arrangements	Poster Chairs
<b>Empowering 21<sup>st</sup> Century Tech Leaders.</b> Snag'em Industry Expo	Dr. Juan Gilbert, Dr. Dilma DeSilva, Dr. Yolanda Rankin, Dr. Cheryl Swanier	Cheryl Seals Jason Black Gloria Townsend Polly Baker	Kristine Nagel Nannette Napier	Nikunja Swain Kinnis Gosha
<b>Awards Nominees</b>	<b>Outstanding Corps Students:</b> Carla Bendezu, UNCC; Allison Loehr, FSU; Matt Misner, IUPUI; Sarah Parker, IUPUI <b>Outstanding Evaluation Assistant:</b> Eric Padget, IUPUI; Kristine Ward, Georgia Gwinnett College <b>Outstanding Corps Faculty Liaison:</b> Dr. Cheryl Swanier, Fort Valley State University			
<b>Sponsors</b>	Wit Foundation, EMC2, Logical Advantage, South Carolina Blue Cross Blue Shield, Google, CA Technologies, Computer Science at NCSU, Computing Research Association, Arizona State University Fulton Schools of Engineering, Anita Borg Institute, National Science Foundation, IT-ology			

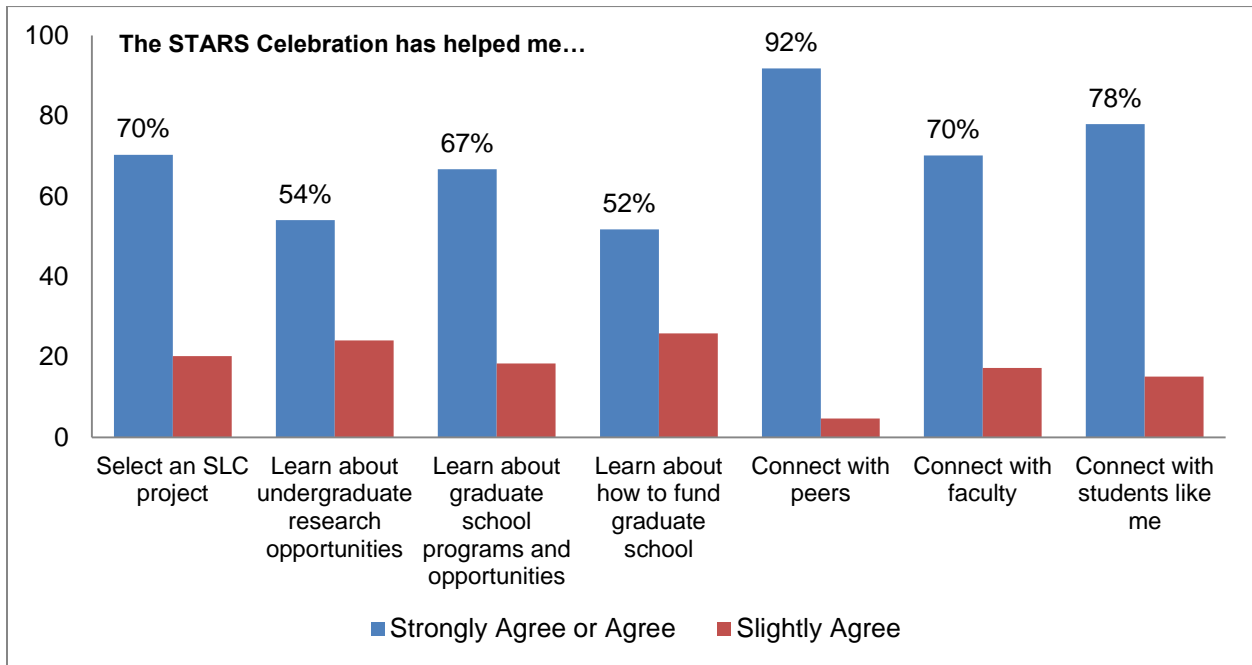
Out of the 334 Celebration participants in 2013, 245 were students and 89 were faculty and partners. Survey response rates for students was 37% (n=91) and 40% (n=31) for faculty and partners. Items were rated on a 5 point Likert scale; percentages below indicate strongly agree and agree responses combined.

Figure 5. STARS Celebration 2013 Survey: Faculty & Partners



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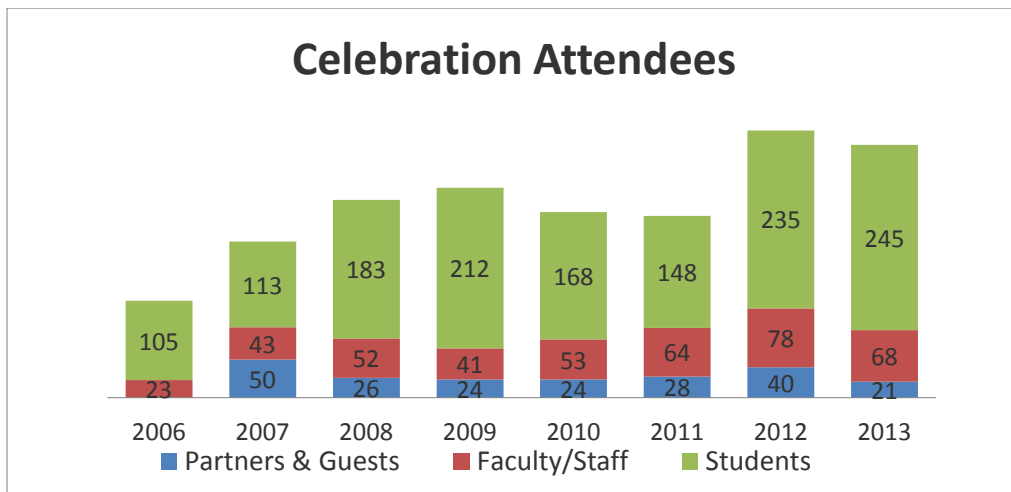
Figure 6. STARS Celebration 2013 Survey: Students



**Cumulative STARS Celebrations**

Detailed reports of each of the eight Celebrations are provided in previous annual reports, available at [www.starsalliance.org](http://www.starsalliance.org). The table below shows the number of individuals participating at each event.

Figure 7. STARS Celebration Attendees



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### 6 STARS Online Community

The STARS Online Community is a platform for informal sharing and dissemination of activities and artifacts within STARS, available at <http://community.starsalliance.org/>. The site is built on top of the customizable social networking platform, JomSocial,

which is built upon the open source content management system Joomla. We have customized capabilities to help STARS participants connect around their school and affinity groups, have discussions and plan events. Affinity groups are open to anyone for sharing information and fostering collaboration around the topic of that group – such as high school outreach, use of robotics in outreach, and support for new STARS schools. The most active affinity groups have been the Evaluation Assistants Affinity Group where EAs from each school join and communicate and collaborate on research projects, and the Celebration Planning Affinity Group, where STARS leadership collaborates on event preparations. All schools have active Affinity Groups to manage their Corps activities.

STARS Online as of December 2013:

- 28 Affinity Groups
- 44 School Groups
- 2,144 Individual Members

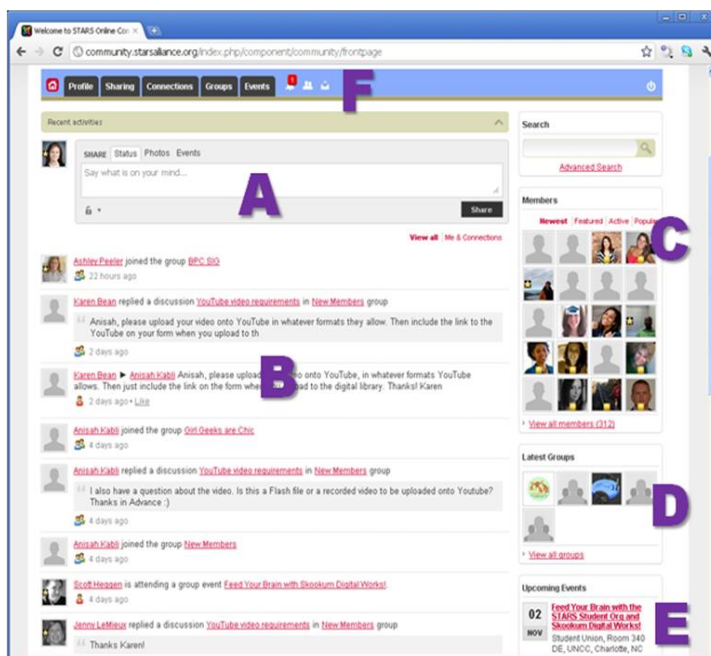


Figure 8. Home page of the STARS Online Community. Users can share status updates on the site (A), which are displayed in a site-wide news feed (B). Participants can also view other members (C), groups (D), and events (E), and navigate to other parts of the community to share files or create events using the navigation bar (F).

### 7 Organizational Capacity Building Impact

The Alliance goals are to enhance institutional capacity to interweave engagement throughout the undergraduate and graduate student experience and to enhance institutional capacity for student-led regional engagement (e.g., K-12, industry, community). Of the 41 institutions participating in the Alliance in the 2012- 2013 academic term, half are doctoral research institutions, and half are undergraduate or masters level institutions. As of spring 2013, 24 institutions have established a Computing Corps organization, plus 2 institutions no longer supported by the Alliance, Virginia Polytechnic University and the University of Tennessee Knoxville.

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The STARS Alliance Evaluation Team constructs a performance scorecard for all Alliance institutions each academic term. The scorecard presents a tally of each activity across our institutions and enables us to provide formative feedback to each STARS institution on how they are performing relative to the Alliance overall. In the spring of 2013, we implemented a new performance rating system to showcase high performers across the Alliance: Gold, Silver, and Bronze level rubrics. We present the overall Alliance scorecard summary (Table 2) and a current listing of performance ratings of each institution (Table 3) to show how Alliance participation compares across institutions, and as a demonstration of what is being continued through the Scaling Project. It should be noted that Gold Level performance was achieved by new and tenured Alliance institutions, an indication that immediate successes can be attained. Scorecards are distributed and discussed annually at the STARS Celebration. A sample institutional scorecard from Hampton University is presented in the Appendix.

**Table 2. STARS Alliance Scorecard Fall 2012-Spring 2013**

	STARS Alliance Totals and Averages		Benchmarks
Online Community	Indicator/Measure	Totals by Spring 2013	
<u>School Groups</u>	# of Groups and Users	1 per School	Moderate usage = discussions, posts, use of calendar for events
	# of Discussions & Posts	Moderate Usage	
<u>Use of Online Community for Local Organization</u>	School Specific Groups	34	Each school should have at least 1 specific working group
<u>2012-13 Affinity Groups</u>	Outreach Related Affinity Group participants	1 leader; 30 participants	Each school should have membership in at least 1 AG
New Core Affinity Groups for 2013-14 will be: K12 Outreach, Peer Outreach, Mentoring, Evaluation, STARS Courses	Peer Outreach Affinity Group participants	1 leader; 2 participants	
	Mentoring Affinity Group participants	1 leader; 5 participants	
	Evaluation Affinity Group participants	1 leader; 50 participants	
-	STARS Learning Community Affinity Group participants	1 Group; 11 participants	
<u>Leadership</u>	Academic Liaison participants	49 total participants	At least 1 AL per school
-	Executive Steering Committee: 0 participants	12 member Executive Steering Committee	Few schools will have representation on this committee
Celebration	Indicator/Measure	Total of 2013 Celebration	Benchmarks
<u>Planning Committee</u>	Count	28 members	Few schools will have representation on this committee
<u>Workshops Presented</u>	Count	25	Each school should send a faculty and student, & present 1 poster
<u>Posters Presented</u>	Count	75	
<u>Attendees</u>	Count	313*	
STARS Individual Impact	Indicator/Measure	Tracked by Fall 2012 + Spring 2013	Alliance Averages
<u># Outreach Events</u>	Count	426	Average is 6
<u># Outreach Participants</u>	Count	31,045	Average is 455
<u>Total Hours of Outreach</u>	Count	4,400	Average is 61
<u>Total Contact Hrs</u>	Calculation	68,300	Average is 1,002
<u>Avg Contact Hrs per Attendee</u>	Calculation	2	Average is 2
STARS Sustainability/Capacity Building	Indicator/Measure	Tracked by Spring 2013	Alliance Averages/Benchmarks
<u>Corps Student Body: Number of SLC Students</u>	Count	468	Average is 12; 10 are funded and is the expected number for mid-large schools
<u>SLC Gender</u>	Calculation	42% Female	Student demographics should be equal to or above the Alliance totals
<u>SLC Ethnicity</u>	Calculation	38% AA, 10%H	
<u>Corps Course</u>	Count	19	Schools are expected to establish at least one permanent source of STARS support
<u>Corps Club</u>	Count	23	

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<u>Other Institutional Support of STARS</u>	Count	15 schools total have permanent funding sources at home institution	
<u>Online Resource Contributions/Artifacts</u>	Count	50	Each school should have a website, youtube video, & plan to share a resource for digital library
<u>Formalized Partnerships</u>	Count	190 in spring 2013	Average is 5
<u>External Funding Sources (donors/grants/etc.)</u>	Count	20 symbiotic grants	Schools are expected to identify at least one potential funding source
<b>STARS Dissemination</b>	<b>Indicator/Measure</b>	<b>Tracked by Spring 2013</b>	<b>Benchmarks</b>
<u>Refereed Journal Articles</u>	Aggregate count across Alliance Institutions per Spring Narrative Reports	5	Each school is expected to contribute to at least one of these areas
<u>Refereed Conference Proceedings</u>		13	
<u>Refereed Posters</u>		2	
<u>Learning Outcomes Measurement</u>		2	
<u>Measurement Tools Disseminated</u>		10	
<u>Local Media &amp; Regional Dissemination</u>		14	

\*This total does not include the partners

**Table 3. STARS Institutional Performance Levels and Highlights Table**

Institution*	Type	STARS Institutional-ization	Projects	STARS Computing Corps Highlights
Arizona+	Doctoral	Yes	M, C, O	REU integration into Corps, robotics outreach
Auburn	Doctoral	Underway	M	Alice computer camps in elementary schools, peer tutoring
Bowie State+	HBCU-Doctoral	Underway	M	Provided workshops on Robotics and Virtual Reality
Columbus State+	HBCU-UG	Yes	PP,M, O	Mentoring Girl Scouts, CS Unplugged
Central Piedmont CC+	Comm. Coll	Yes	O	K-6 outreach to teach programming with Lego Robotics
Depauw+	Doctoral	Yes	M,PP, O	Grace Hopper partnership, Recruiting women into CS 1-2
Duke	Doctoral	Yes	C, M, O	Service learning course
FAMU+	HBCU	Yes	M, PP, O	Implementing CSDT at the local Boys and Girls Club
Florida International +	Doctoral-Hisp.	Yes	O, M	Tutoring in CS, K-6 robotics outreach
Florida St. Jacksonville	UG	Yes	PP, O, M	Corps across 5 regional campuses
Florida State University	Doctoral	Yes	C	Corps Course counts for university leadership credit
Fort Valley State+	HBCU	Underway	M	HS outreach through HS STEM Academy
Georgia Gwinnett+	UG	Underway	M	Professional development, outreach targeting MS girls
George Mason+	Doctoral	Underway	M	Creating 2+2 with N. Va CC
Georgia Tech	Doctoral	Yes	O	K12 outreach with organization like Girls Scouts; Cool Girls, Inc.
Hampton U.	HBCU	Yes	O, M, PP	Peer tutoring, HS outreach
Illinois Inst. of Tech+	Doctoral	Underway	PP	Outreach with LEGO Mindstorm and Scratch
Indiana U. Bloomington+	Doctoral	Yes	C, O, M, PP	HS outreach, Girl Scout summer camp
Indiana/Purdue+	Doctoral	Yes	C, M	Mentoring, tutoring, & fund raising, Girls Inc., Women in Technology
JSCU	HBCU	Yes	O, M, PP	k-5 outreach, partnership with Police Activity League
Livingstone+	HBCU	Underway	M	HS and UG outreach
Loyola+	Doctoral	Yes	C, M	Urban K-12 outreach, Pan-African Association partnership
Meredith	Women's U.	Underway	M	Peer tutoring
Morehouse+	HBCU	Underway	M	Peer tutoring, applying for Diversity in Computing travel grants
NC A&T	HBCU	Yes	O, M	MS outreach
NCSU	Doctoral	Yes	M, O, PP	Monthly MS outreach, peer tutoring
N. Dakota State+	Doctoral	Underway	M	MS outreach, HS outreach for girls
N. VA CC+	Comm.Coll	Underway	M	Creating 2+2 with George Mason
N. Texas+	Doctoral	Underway	M	MS outreach with Girl Scouts
NW Florida State	UG	Yes	C,M, O, PP	STARS Internships
Oregon State+	Doctoral	Underway	M	MS and HS outreach, peer tutoring
Rutgers+	Doctoral	Yes	O, C	MS outreach
SC State	HBCU	Underway	PP	K12 outreach, established Robotics Competition

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Seminole State	UG	Underway	PP,M	Hot New Technology Expo, Spring Code Camp Event
Spelman	HBCU/Women's	Yes	O, M	K12 outreach, mentoring
UNC Charlotte	Doctoral	Yes	O, C, PP	MS and HS outreach
UNC Greensboro	Doctoral	Yes	PP, O	Community (adult) and HS outreach
U. Delaware+	Doctoral	Yes	O, C, PP	K-8 outreach in low-income areas, service learning courses
UNO	Doctoral	Underway	PP, M	Peer tutoring, K-12 outreach
USFP	Master's	Yes	M	K-12 outreach, partnership with Livingstone University
Winthrop	Master's	Yes	PP, O, M	Tutoring in CS, Campus outreach, UG research conference

### Key for Table 6.2

(**M**=Mentoring, **PP**=Pair Programming, **C**=SLC Course, **O**=SLC Student Organization; **MS**=Middle School; **HS**=High School)

\*Scorecard Performance Ratings: **Gold Level** exceeds expectations (scoring above 75%), **Silver Level** meets expectations (scoring between 51% and 74%), and **Bronze Level** is in growth mode (scoring below 50%)

+Newest Cohort of STARS Alliance Institutions

### STARS Department Chair Interviews

Periodically, the evaluation team conducts interview with Department Chairs in order to measure STARS Alliance capacity building at our institutional participants. Interviews were conducted in Spring 2009 and in Spring 2012. Additional interviews of Department Chairs will be conducted in Spring 2014. Cumulative results from the Department Chair interviews indicated that STARS is having a positive impact on the student body in computing departments, and is also positively impacting faculty. Please see the 2012 Annual Report for a summary of the most recent interviews.

## 8 Alliance Individual Impact

*College Students:* The STARS Alliance impacts attitudes, behaviors and cognitive abilities of college students, primarily through their participation in the STARS Computing Corps. As previously stated, the Corps is a co-curricular service-learning program that fosters student-led community engagement as a means to enhance student retention and success. The Corps model is grounded in Astin's Involvement Theory (Astin et al, 2000), which posits that student engagement is a key mediator of retention and academic success. Student engagement occurs through their engagement with the subject-matter or curriculum of a discipline; their engagement with faculty and staff in an academic unit; their engagement in student life and co-curricular activities, and their engagement with other students, especially students who share common characteristics or interests. The Corps model combines pedagogies of engagement by creating learning communities focused on research, service and outreach. While these pedagogies of engagement have been shown effective for all types of students across all disciplines, there is evidence that they are particularly effective for at-risk students and students from underrepresented populations in STEM disciplines (see Dahlberg, Barnes, Buch, & Rorrer, 2011).

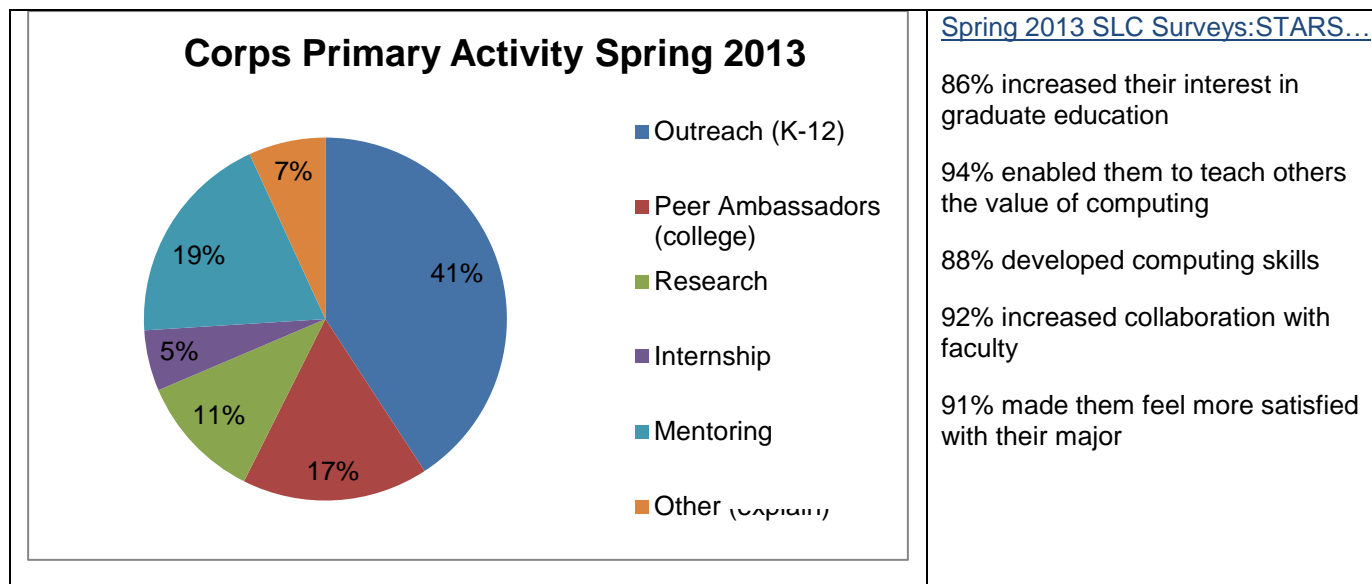
*Faculty:* The STARS Alliance impacts professional networks and mentoring for faculty who participate not only as Corps managers and Academic Liaisons, but also as partners in BPC efforts. The STARS Scaling Project engages faculty to increase the number of faculty who participate in BPC and benefit from the STARS Community. Faculty can undertake their own leadership projects, such as implementing Mentoring, Pair Programming, or TREU; including inputting Corps practices in the digital library; hosting a Celebration workshop; or mentoring a new STARS school. We leverage STARS Online and the STARS Celebrations to support faculty advancement. For example, workshops held at the annual Celebrations provide technical demonstrations, training for managing mentoring programs, managing undergraduate research experiences, developing service learning courses with computing content, and effective proposal writing, etc. We have seen an increase in grant proposals and in professional dissemination from our faculty.

### Corps Participants 2012-2013: Program Evaluations and Student Surveys

New Corps students participate in a pre-survey in August and post-survey in May. All Corps students also participate in an end of semester survey each November and April to report their semester activities, and in particular, their perspectives regarding their activities in the Corps. Corps students continue to report intentions to attend graduate school, and that their participation in STARS has improved leadership skills and academic performance. They also continue to report that STARS demonstrates the relevance of computing to them, as well as exposes them to resources about undergraduate research and graduate school applications. Below we present highlights from the most recent Spring 2013 survey.

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Figure 9. SLC Project & Survey Highlights Spring 2013



Over the course of the STARS Celebration 2013, Evaluation Team Members conducted focus group interviews with students, as well as conducted faculty focus groups. These focus groups sought the participants' stories regarding STARS generally and specific components of the STARS program. For faculty, questions seeking information on career outcomes, institutionalization, problems/issues, campus recognition and engagement were posed. For students, questions were focused on students' perceptions of STARS, particularly on how STARS has helped them in both their academic careers, as well as in planning for the future. Key themes that emerged in these sessions are highlighted below.

### Student Interview Themes

Students were interviewed during the STARS Celebration in 2013 to investigate what impact they believe STARS

has had for them. Participation in focus groups were voluntary, consent was given, and each group was approximately 20 minutes. A total of 3 groups were conducted by evaluation team members. Themes indicated that the Corps has a **positive influence** on career preparation, future plans towards graduate school, and providing a peer group otherwise not available to them

#### SLC Students say about STARS.....

- "What I got from STARS is a connection to my peers, and it has helped me communicate more with my peers, and my advisor...and connected me professionally with another organization that helped me get a job.....it helps you see the good that you can do."
- "Being able to have an impact...to help people."
- "I actually met a student here (at Celebration2013) who is now a STARS student at (university) and she was in a high school outreach program I did. Being able to give back"
- For me, it has been the transition from being a learner to being a teacher of others."

in their academic disciplines. Students conveyed a strong sense of making contributions of value to society.

#### Student Interview Themes

- *Corps students are surprised by their own abilities:* they learned technical, interpersonal and leadership skills via Corps activities; many described 'coming out of their shells'
- *Corps students are inspired by their peers and faculty in STARS:* they see not only that advanced degrees are attainable, but also how to accomplish their academic goals
- *Corps students believe in the impact of outreach:* giving back through teaching and mentoring is important to them, and all had stories about a particularly meaningful encounter with another student through outreach
- *The Celebration is a fun capstone event:* they develop presentation skills and connect with others beyond their school



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- Corps students feel a sense of STARS identity: professional awareness has been heightened by STARS and opportunities abound for them, all of which are exciting possibilities; many are interested in graduate degrees
- Corps students will always be engaged: STARS has catalyzed a desire to always contribute to society through technology and service

### Faculty Participants

Since 2008, we have offered writing and research circles and faculty mentoring workshops at the Celebration. We formed *Birds of a Feather sessions at Celebration and other professional venues, like Grace Hopper*, to increase faculty publications in both BPC and traditional computing research publications. We provide *Faculty Career Mentoring* by offering a *Faculty Advancement Track* and a *CRA-W sponsored Faculty Mentoring Workshop* at the STARS Celebration, and we encourage participation at the CRA-W, CDC and ABI career mentoring workshops. **All faculty in the Alliance who have become eligible for promotion and tenure have been successful.** We have at least 5 former Corps students become faculty since 2006.

Faculty who serve as academic liaisons and Corps leaders are surveyed annually, as well as asked to participate in focus groups during the STARS Celebration each year. They are asked what they believe is effective, meaningful to their students, and to their departments, college and individual careers regarding their participation in STARS. We also seek out formative feedback, for constructive input to improve the Alliance and the Corps practices.

### Faculty Survey Spring 2013

Eighty-seven faculty responded to the Spring 2013 survey. Continuing a trend from the past several years, faculty respondents discussed STARS' overwhelmingly positive impact on their careers, the students, and BPC overall. For example, one faculty member stated that, "STARS has been very influential on my career. This semester I was nominated for Outstanding Junior Professor." In addition, almost all faculty members indicated that they had developed helpful professional collaborations through their involvement in STARS.

A majority of faculty members agreed with the statements that the Corps has helped to develop their leadership and computing skills. In addition, they also agreed that students have demonstrated passion and commitment to their projects and that their expectations for SLC projects were met. One faculty member noted that, for students, "[STARS] has allowed more engagement in computing and supercomputing while promoting a better understanding of leadership elements."

- "Working with STARS has a **positive impact on my career** and **motivates** me personally to seek different ways of teaching computing, not only to the younger outreach students, but also to my university students."
- "STARS has provided me with **great opportunities to network, travel and present research** and other educational material about the impact of BPC on the field of computing. I have been able to successfully leverage the program to **get additional funding from NSF to further the BPC mission**. It is largely due to the work done through STARS that I was able to obtain tenure and promotion."
- "Many students find that participating in STARS activities **strengthens their own motivation and interest in computing**. And outreach activities naturally help to attract more students to our department."

### Faculty Focus Groups Themes

Two focus groups were conducted during the Celebration 2013. The focus groups consisted of faculty who serve in the roles of Corps leaders and/or Academic Liaisons, with both new and veteran status in STARS. Themes common across all faculty were a strong sense of community, a value of connecting with students, and STARS as a catalyst and wrapper for engaging with students and partnerships within and outside of academia. Additionally, faculty mentioned the recognition afforded them through STARS, as a 'brand' on their campuses that has value to campus administrators. Faculty who are beginning their careers noted that STARS provided them with opportunities for research and collaborations, in particular for those at teaching institutions with limited research exposure. Faculty who are advanced in their careers noted the credibility that STARS provides to their student engagement efforts. All faculty

Theme: the STARS Model provides an organized and credible vehicle for engaging students that demonstrates impact and adds value to the academic mission

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indicated that while STARS has indeed helped their careers, the true value to them is in advancing their passions to connect with students and develop opportunities for students.

### Faculty Focus Group Quotes

STARS...

- Has given me the ability to spend more time, more quality time, with students to impact them, and their lives, and enrich my life
- It's a way to interact with students and get a different kind of connection
- This is our first year in STARS; we are a teaching institute and it's given us another avenue for engaging students; it's been a very good catalyst for impacting students...now we can show sustainability for the campus because we have numbers, facts, about impact that has impressed our Provost, who said, "Oh, I get it."
- Even administration is looking at [STARS], 'hey, how can we leverage STARS more'
- Gave us an avenue to talk about our programs, our outreach efforts, it's allowed us to pull things together...and it wouldn't have happened with just a bunch of students and faculty
- It's really family, you really get a lot out of it
- It's hard to do alone...having a national organized approach is easier to- I feel enabled to - reach more kids

## 9 Evaluation

The STARS Evaluation Team has a history of seeking external reviews and valuing expert reviews (see STARS Alliance Annual Report 2011, [www.starsalliance.org](http://www.starsalliance.org)). In response to expert reviews in 2011 and in the Reverse Site Visit to the National Science Foundation in 2012, we have redirected our evaluation efforts to streamline monitoring, in an effort to focus attention on scaling resources for organizational capacity building. As we manage a large scale, multi-site evaluation, we will continue to leverage the Evaluation Assistants, a well-developed training program with extensive support tools online, further refined in 2013 to include reporting apps. In addition to our semester surveys of faculty and students, we have refined our faculty career trajectory tracking, refined the annual longitudinal follow up of Corps alumni, and developed new tracking and visualization tools that showcase our national impact. As a measure of organizational capacity development, we have identified exemplars of institutional efficacy, which are an extension of the institutionalization rubric already in use with the annual scorecard. A deeper study of organizational efficacy of these exemplars, via Department Chair interviews, and in depth discussion of the characteristics of their practice, will begin in spring 2014. Our aim is to inform the national community of how to replicate Alliance practices at their respective institutions with respect to contextual factors. Additionally, a comprehensive investigation of enrollment and graduate trends is underway, to examine if and how STARS institutional trends differ from national trends. Another key focus for the STARS Evaluation team is disseminating our findings and exemplars, through use of our online materials and other publications. Below, we outline our key evaluation targets.

Figure 10. Key Focus Areas of Evaluation

Focus	Multisite Large Scale Data Collection	Participant Outcomes	Organizational Capacity	National Resource
Solutions	Evaluation Assistants	Participants = Faculty and Corps students	Exemplars of institutional efficacy	Evaluation plan for STARS Online
	Refined Evaluation Toolkit	Refined monitoring of Faculty careers	In depth study of exemplars & institutional impact	Assess STARS Online usage metrics, trends
	Standardize Online Reporting: mobile apps, verification system	Periodic longitudinal studies of Corps students	Affinity Group leadership via Steering Committee Chairs	Periodic user surveys & qualitative analyses of STARS Online

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## 10 Reference

Astin, A. W., Vogelgesang, L. J., Ikeda, E. K. AND Yee, J. A. (2000). *How Service Learning Affects Students*. Higher Education Research Institute, University of California.

Dahlberg, T., Barnes, T., Buch, K. & Rorrer, A. (2011). The STARS Alliance: Viable strategies for broadening participation in computing. *Transactions on Computer Education, Special Issue on Broadening Participation*, 11 (3),18.

## 10 Appendix

STARS Sample Institutional Scorecard: Hampton University: Gold Level

	Hampton University	Alliance Total	Rating (1, 2, or 3)	Total	%
<b>Online Community</b>	<b>To Date Totals by Spring 2013</b>		<b>8</b>	<b>12</b>	<b>67%</b>
<u>School Groups</u>	1 Group, 15 Users	1 per School	2	Moderate usage = discussions, posts, use of calendar for events	
	0 Discussions, 0 Wall Posts	Moderate Usage			
<u>Use of Online Community for Local Organization</u>	School Specific Groups: DP (1)	34	2	Each school should have at least 1 specific working group	
<u>2012-13 Affinity Groups</u>	Outreach Related AG: 0 participants	1 leader; 30 participants	2	Each school should have membership in at least 1 AG	
New Core Affinity Groups for 2013-14 will be: K12 Outreach, Peer Outreach, Mentoring, Evaluation, STARS Courses	Peer Outreach AG: 0 participants	1 leader; 2 participants			
	Mentoring AG: 0 participants	1 leader; 5 participants			
	Evaluation AG: 1 participant	1 leader; 50 participants			
-	STARS Learning Community AG: 0 participants	1 Group; 11 participants			
<u>Leadership</u>	Academic Liaisons: 1 participant	49 total participants	2	At least 1 AL per school	
-	Executive Steering Committee: 0 participants	12 member Executive Steering Committee		Few schools will have representation on this committee	
<b>Celebration</b>	<b>Tracked by Celebration 2013 Registration</b>		<b>11</b>	<b>12</b>	<b>92%</b>
<u>Planning Committee</u>	0	28 members	2	Few schools will have representation on this committee	
<u>Workshops Presented</u>	1	25	3	Each school should send a faculty and student, & present 1 poster	
<u>Posters Presented</u>	4	75	3		
<u>Attendees</u>	9	313	3		
<b>STARS Individual Impact</b>	<b>Tracked by Fall 2012 + Spring 2013</b>		<b>14</b>	<b>15</b>	<b>93%</b>
<u># Outreach Events</u>	40	426	3	Average is 6	
<u># Outreach Participants</u>	393	31,045	2	Average is 455	
<u>Total Hours of Outreach</u>	63	4,400	3	Average is 61	
<u>Total Contact Hrs</u>	1,798	68,300	3	Average is 1,002	
<u>Avg Contact Hrs per Attendee</u>	4.58	2	3	Average is 2	
<b>STARS Sustainability/Capacity Building</b>	<b>Tracked by Spring 2013</b>		<b>24</b>	<b>27</b>	<b>89%</b>
<u>Corps Student Body: Number of SLC Students</u>	20	468	3	Average is 12; 10 are funded and is the expected number for mid-large schools	

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<u>SLC Gender</u>	40%Female	42% Female	3	Student demographics should be equal to or above the Alliance totals	
<u>SLC Ethnicity</u>	90%AA	38% AA, 10%H	3		
<u>Corps Course</u>	1	19	3		
<u>Corps Club</u>	1	23	3	Schools are expected to establish at least one permanent source of STARS support	
<u>Other Institutional Support of STARS</u>	0	15 schools total	2		
<u>Online Resource Contributions/Artifacts</u>	1 planned	50	2	Each school should have a website, youtube video, & plan to share a resource for digital library	
<u>Formalized Partnerships</u>	3	190 in spring 2013	2	Average is 5	
<u>External Funding Sources (donors/grants/etc.)</u>	2(NSF CyberCorp Scholarship, NSF HBCU-UP)	20 symbiotic grants	3	Schools are expected to identify at least one potential funding source	
<b>STARS Dissemination</b>	<b>Tracked by Spring 2013</b>		<b>11</b>	<b>18</b>	<b>61%</b>
<u>Refereed Journal Articles</u>	0	5	2	Each school is expected to contribute to at least one of these areas	
<u>Refereed Conference Proceedings</u>	0	13	2		
<u>Refereed Posters</u>	0	2	2		
<u>Learning Outcomes Measurement</u>	0	2	2		
<u>Measurement Tools Disseminated</u>	0	10	2		
<u>Local Media &amp; Regional Dissemination</u>	0	15	1		
			<b>Totals</b>	<b>68</b>	<b>84</b>
<b>Successes &amp; Innovation</b>		Strong partnerships with ACM and WIC Deep contact with outreach participants for lasting impact			

	Criteria	Total	Points Possible	%
<b>Gold: Exceeds Expectations (&gt; 75%)</b>	Online Community	8	12	67%
<b>Silver: Meets Expectations (51% - 74%)</b>	Celebration	11	12	92%
<b>Bronze: Opportunities for Growth (&lt;50%)</b>	STARS Individual Impact	14	15	93%
	STARS Sustainability/Capacity Building	24	30	80%
	STARS Dissemination	11	21	52%
	<b>Totals</b>	<b>68</b>	<b>90</b>	<b>76%</b>
	<b>2012-2013 Rating</b>	<b>Gold: Exceeds Expectations (&gt; 75%)</b>		