The Andrew W. Mellon Foundation
Scholarly Communications and Information Technology Program

PROPOSAL COVER SHEET

Date of Submission (This date must match the date of the cover letter)	April 3, 2013
Legal Name of Grantee	University of Pittsburgh

Proposed Project:

Project Title	iSchool Inclusion Institute (i3)
Request Amount	$818,201.20
Proposed Grant Term (in months)	36 months
Proposed Start Date	July 1, 2013
Proposed End Date	June 30, 2016
Internal Reference Number	I# 0036960

Principal Investigator(s) and Title(s):

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April 3, 2013

Donald J. Waters, *Program Officer*
Helen Cullyer, *Associate Program Officer*
The Andrew W. Mellon Foundation
140 East 62nd Street
New York, NY 0065

Dear Dr. Donald Waters,

On behalf of the University of Pittsburgh School of Information Sciences, I am pleased to submit this proposal seeking continued funding for the iSchool Inclusion Institute (i3). The pilot, so graciously supported by the Andrew W. Mellon Foundation through two generous grants, is now in its final year of funding. Sustained support from the Foundation will enable the University of Pittsburgh iSchool, in collaboration with the iSchools consortium, to transition the institute from its pilot phase into steady state operation, addressing a major challenge in the Information Sciences disciplines. Projects such as the i3 program are essential to increasing the diversity of the student body and the faculty in disciplines such as the Information Sciences. i3 is creating a pathway for students from underrepresented groups to become leaders of the Information Professions or to become researchers and teachers in iSchools around the world.

The i3 project has achieved early success along multiple metrics of assessment: 40 students have participated in the project since its inception, 2 students are currently enrolled in graduate degree programs, and 8 graduates of the program have applied for admission to one or more iSchools. In addition, 19 of the 22 US-based iSchools have supported the program either by supplying instructors or research project mentors, or by offering scholarships designated for applicants from the i3 program.

This project has the potential to change the Information Sciences disciplines and the associated professions by creating role models for students from all walks of life. We look forward to the Andrew W. Mellon Foundation's consideration of this proposal to continue its support for this very important endeavor.

Ronald L. Larsen
Dean and Professor
School of Information Sciences
University of Pittsburgh

Renewal of Funding Proposal
iSchool Inclusion Institute (i3)

University of Pittsburgh
School of Information Sciences
135 North Bellefield Avenue
Pittsburgh, PA 15260

Principal Investigator: Dr. Ronald L. Larsen
Co-Principal Investigator: Dr. James 'Kip' Currier
Project Director: Mr. Michael Depew

PROPOSAL SUMMARY

Renewal of funding support for the iSchool Inclusion Institute (i3) is proposed in response to a deficiency of faculty and students from underrepresented populations within academia—specifically the Information Schools (iSchools)—and the workforce in information-related industries. Now in its third year of programming, i3 is an undergraduate research and leadership development program that prepares students from underrepresented populations for graduate study and careers in the information sciences. Each year 20 undergraduate students from across the country are selected to become i3 Scholars. Those students undertake a year-long experience that includes two summer institutes held at the University of Pittsburgh and a year-long team research project.

Continued support of i3 is proposed for three years, beginning in July 2013 and ending in June 2016. During that period, cohort sizes will be increased from 20 to 25 students per year, resulting in a total of 75 additional students partaking in the i3 program. New marketing materials will be designed and printed in order to more accurately reflect the program and improve recruitment efforts. i3 Scholars will receive increased support in the form of travel awards to attend the annual iConference; students will also be encouraged to submit their research for conference publication. Program evaluation services will continue to be delivered by University of Pittsburgh's Collaborative for Evaluation and Assessment Capacity (CEAC) and include revised and newly created survey instruments to gather information regarding program performance.

Partnerships with iSchools and the iSchools Consortium (iCaucus)—a collection of Information Schools dedicated to advancing the information field—will be further developed and strengthened. There are now 41 iSchools on four continents; 23 of which are located in the United States. Currently, 6 iSchools offer scholarships to i3 Scholars upon admission to masters programs. Over the three year period, additional iSchools will be solicited to commit to offering scholarships to i3 participants. iSchool faculty and staff will continue to be invited to serve as guest lecturers and speakers during the Introductory and Concluding Institutes.

Long-term sustainability and funding of the program will also be explored through the iSchools Consortium. A sustainable funding proposal will be developed and revised in collaboration with a core group of iSchools. The sustainable funding proposal will be submitted to the iSchools Consortium in Year 6 for approval.

A total of **$818,201.20** in renewed funding is proposed over a three year period—July 2013 to June 2016—to further develop i3 programming, increase its scale and impact, and explore and secure sustainable funding from alternative sources.

INSTITUTIONAL BACKGROUND

The University of Pittsburgh, founded in 1787, is one of the oldest institutions of higher education in the United States. As one of the nation's distinguished comprehensive universities, the resources of the University constitute an invaluable asset for the intellectual, economic, and social enrichment of Pennsylvania, while the international prestige of the University enhances the image of Pennsylvania throughout the world.

The University's mission is to:
- provide high-quality undergraduate programs in the arts and sciences and professional fields, with emphasis upon those of special benefit to the citizens of Pennsylvania;
- offer superior graduate programs in the arts and sciences and the professions that respond to the needs of Pennsylvania, as well as to the broader needs of the nation and the world;
- engage in research, artistic, and scholarly activities that advance learning through the extension of the frontiers of knowledge and creative endeavor;
- cooperate with industrial and governmental institutions to transfer knowledge in science, technology, and health care;
- offer continuing education programs adapted to the personal enrichment, professional upgrading, and career advancement interests and needs of adult Pennsylvanians;
- make available to local communities and public agencies the expertise of the University in ways that are consistent with the primary teaching and research functions and contribute to social, intellectual, and economic development in the Commonwealth, the nation, and the world.

The School of Information Sciences remains dedicated to accomplishing the University's mission. In 2012, the School of Information Sciences sustained its excellence in teaching and research activities. A total of 47 full-time professionals were employed by the School of Information Sciences—26 full-time faculty and 21 full-time staff. The School of Information Sciences secured $2.13 million for research projects, split between sponsored research and other sponsored programs. Also in 2012, approximately 700 students were enrolled in degree programs at the undergraduate and graduate level and 362 students were awarded degrees.

RATIONALE

Renewal of funding support for the iSchool Inclusion Institute (i3) is proposed in response to a deficiency of faculty and students from underrepresented populations within academia—specifically the Information Schools (iSchools)—and the workforce in information-related industries. To address this shortfall, i3 aims to accomplish the following:

1. Increase the number of students from underrepresented populations and students with a demonstrated commitment to eradicating racial disparities in graduate programs at U.S. iSchools
2. Encourage students from underrepresented segments of the population, or those who have a demonstrated commitment to eradicating racial disparities (hereafter referred to as students), to consider career opportunities as members of academic faculty.

Research has shown that a diverse faculty encourages those from underrepresented populations to more likely consider advanced educational opportunities. More diverse and inclusive student bodies may in turn yield academic faculties and workforces that are more representative of U.S. societal demographics.

> "The presence of minority faculty attracts minority students in programs, and vice versa (e.g., Bernal & Castro, 1994, Hills & Strozier, 1992). Thus, attention to students' ethnicity is essential as a means of attracting good students who are likely to seek schools with minority student and faculty representation. Failure to attract minority students limits the available pool of future faculty and reduces the attractiveness of a program to potential future minority faculty". (American Psychological Association, "Valuing Diversity in Faculty: A Guide," 2004).
>
> "The number of native-born S&E (science and engineering) graduates entering the workforce is likely to decline unless the Nation intervenes to improve success in educating S&E students from all demographic groups, especially those that have been underrepresented in S&E careers." (National Science Board, The Science and Engineering Workforce, "Realizing America's Potential", 2003).
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> "We must ensure that every U.S. citizen is provided an opportunity to gain the skills and knowledge necessary to compete in the STEM [Science, Technology, Engineering and Mathematics] workforce. By so doing, America not only potentially broadens the participation of her citizenry, but the nation also enriches the quality of scientific discoveries and technological advances made by infusing intellectual diversity of perspective throughout the scientific enterprise." (Building Engineering and Science Talent, 2004. *A Bridge for All: Higher Education Design Principles to Broaden Participation in Science, Technology, Engineering and Mathematics.* San Diego, CA: BEST).

While the U.S. population has become increasingly diverse, student populations in library science and information science programs have not kept pace with this trend. The proportion of ethnic minorities in the information sciences and iSchools—at the graduate student and faculty levels—remains disproportionately small.

According to the 2012 Association for Library and Information Science Education (ALISE) Statistical Report, 12.07% of all faculty in higher education identify as American Indian/Alaskan Native, Black, or Hispanic. In Library and Information Science programs, only 10.06% of faculty identify in those same racial/ethnic groups. In comparison, the U.S. Census Bureau estimates 31% of the U.S. population is now American Indian/Alaskan Native, Black, or Hispanic.

Table I-A
Comparative Breakdown by Ethnicity and Race of Library and Information Science Faculty and All Higher Education Faculty

Ethnicity/Race	U.S. Bureau of Census Estimates*	All Faculty, Fall 2009**	LIS Faculty, January 2012	Difference (LIS-Bureau of Census Estimate)	Difference (LIS - All Faculty)
Asian/Pacific Islander	5.20%	6.52%	15.33%	10.13%	8.81%
American Indian/ Alaska Native	1.20%	0.53%	0.84%	-0.36%	0.30%
Black	13.10%	7.18%	5.39%	-7.71%	-1.79%
Hispanic	16.70%	4.36%	3.83%	-12.87%	-0.53%
White	63.40%	81.41%	74.61%	11.21%	-6.80%

* Population estimate for April 1, 2011
**U.S. Department of Education, National Center for Education Statistics, *Digest of Education Statistics, 2010*

Figure I-12
Ethnicity and Race of All Faculty, January 1, 2012
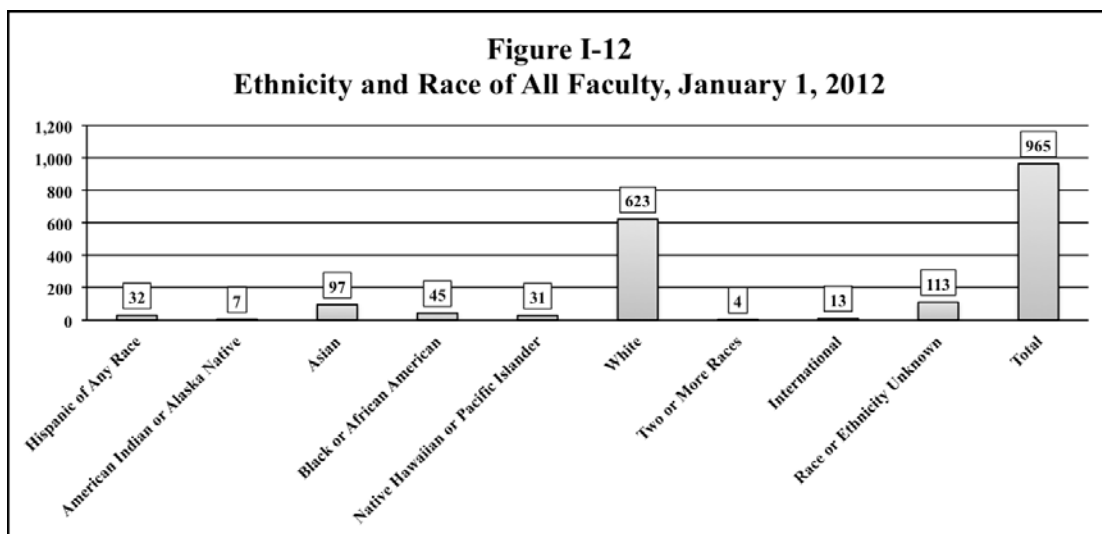
(ALISE Statistical Report 2012)

Graduate student populations in library and information science programs contain similar demographic disparities. Approximately 10.44% of students enrolled in ALA-Accredited Master's programs identify as American Indian/Alaskan Native, Black, or Hispanic. As is the case with academic faculty, when compared to the U.S. population, graduate student populations in library and information science programs maintain a 21 percentage point disparity in racial/ethnic composition.

It is important to note that the data cited from the ALISE Statistical Reports pertains primarily to Library and Information Science schools and programs. Schools and programs that are more technically-based (e.g. Information Science, Telecommunications, Informatics) likely experience different disparities in the composition of faculty and graduate students, particularly in regards to international populations. Whereas these disparities are certainly important to consider, the data provided in the ALISE Statistical Reports serve as a sufficient estimation for domestic diversity within the information sciences.
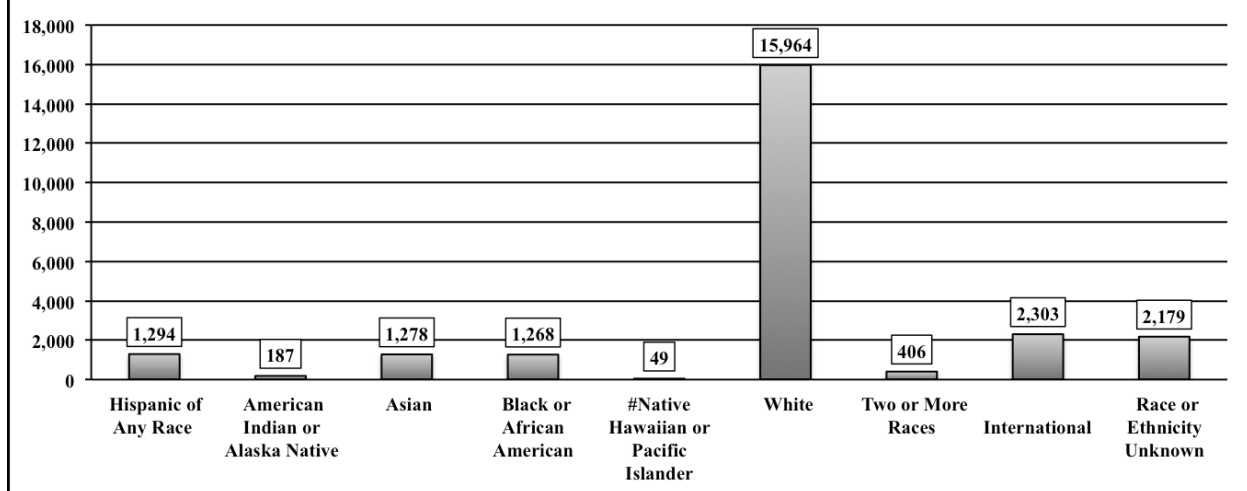
Table II-A
Comparative Breakdown by Ethnicity and Race of ALA-Accredited Master's Enrollment and U.S. Bureau of Census Population Estimates

Degree	U.S. Bureau of Census Estimates*	ALA-Accredited Master's		Total	
		Percent	Difference	Percent	Difference
Hispanic of Any Race	16.70%	5.41%	-11.29%	5.19%	-11.51%
American Indian or Alaska Native	1.20%	0.81%	-0.39%	0.75%	-0.45%
Asian	5.00%	3.67%	-1.33%	5.13%	0.13%
Black or African American	13.10%	4.22%	-8.88%	5.09%	-8.01%
Native Hawaiian or Pacific Islander	0.20%	0.23%	0.03%	0.20%	0.00%
White	63.40%	70.67%	7.27%	64.03%	0.63%
Two or More Races	2.30%	1.28%	-1.02%	1.63%	-0.67%

*Population estimate for April 1, 2011

(ALISE Statistical Report 2012)

Figure II-6
Total Enrollment by Ethnicity and Race, Fall 2011

Category	Enrollment
Hispanic of Any Race	1,294
American Indian or Alaska Native	187
Asian	1,278
Black or African American	1,268
#Native Hawaiian or Pacific Islander	49
White	15,964
Two or More Races	406
International	2,303
Race or Ethnicity Unknown	2,179

(ALISE Statistical Report 2012)

The significant gap in the number of students and faculty from underrepresented populations within the information sciences leads to several negative outcomes:

1. iSchool faculty are not representative of the populations that they serve in the information professions, and are therefore less likely to fully understand and anticipate the needs of those populations;
2. Students of color are less likely to identify role-models and develop strong mentor-mentee relationships with faculty in the iSchools;
3. Students of color are less likely to pursue careers and/or research in the information professions;
4. iSchools with technically-based programs areoften overly dependent upon international admissions to fill their graduate programs, and therefore assume increased uncertainty in enrollment forecasts;
5. Faculty research and teaching in the information sciences is less likely to address the most critical issues and challenges for underrepresented individuals and groups

The iSchool Inclusion Institute (i3) is specifically designed to address each of those negative outcomes by increasing diversity among student and faculty populations. By actively marketing the information sciences as a field—not as a single school or program—i3 serves as a pipeline for students from underrepresented populations to enter graduate study and information-oriented careers. Undergraduate students are rarely introduced or exposed to the many interdisciplinary research areas and subfields that comprise the information sciences. Consequently, students that do not have an existing connection to the field (e.g. a parent or family member that studied or works in a related field, or strong personal interests in libraries, math, or technology) are less

likely to naturally gravitate towards the information sciences. While the mentoring, cohort-building, and research experience provided by i3 is of utmost importance to student development and preparation for graduate school, it is the program's role as a recruitment and marketing tool for an entire field of study that sets itself apart from other diversity initiatives.

To date, the Andrew W. Mellon Foundation has supported i3 with two grants: (1) a one-year planning grant of $100,000.00 which, after a no-cost extension, expired June 2011; and (2) a three-year grant of $600,000.00 to implement a pilot version of the project, which is set to expire June 2013. In order to further develop and grow the program—as well as the number of underrepresented students and faculty in the iSchools—the University of Pittsburgh seeks continued support from the Andrew W. Mellon Foundation to extend i3 for three additional years.

PROJECT DESCRIPTION

The iSchool Inclusion Institute (i3) markets itself as an undergraduate research and leadership development program that prepares students from underrepresented populations for graduate study and careers in the information sciences. Each year 25[1] undergraduate students from across the country are selected to become i3 Scholars. Those students undertake a year-long experience that includes two summer institutes held at the University of Pittsburgh and a year-long team research project. Although an intensive and challenging program, i3 prepares students for the rigor of graduate study and research in the information sciences. The U.S.-based iSchools value the preparation provided by i3 and actively recruit i3 Scholars to their graduate programs.

Introductory Institute (June, Year 1, Four Weeks)
The Introductory Institute spans four weeks and is held at the University of Pittsburgh's School of Information Sciences. During those four weeks, i3 Scholars are immersed in special-topics workshops designed to highlight the various fields and research areas in the information sciences. Past workshops have included discussions on human factors and robotics, information access and equality, new media and journalism, gaming, human computer interaction, security and cryptography, and many others. i3 Scholars are offered professional development seminars led by experts in academia and industry, which focus on mentoring, resume writing, graduate school applications, and networking. Also during the Introductory Institute, i3 Scholars select into their research teams and work to identify a topic of research for their year-long project. At the end of the four weeks, each research team must develop and present a research proposal detailing their topic and intended methods.

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[1] Proposed cohort size is increased from 20 to 25 students in years 4-6.

i3 also provides students important downtime and social outings. The Introductory Institute includes annual outings to Kennywood Amusement Park, a Pittsburgh Pirates baseball game, kayaking on the Allegheny River, and the Carnegie Museums, among others. Tickets/fees for these trips are included in the grant under the 'Local Travel and Entertainment' budget category and are free to i3 Scholars.

Team Research Project
After the Introductory Institute, i3 Scholars work in their teams on a year-long research project. Each team receives support and advising from a faculty mentor and the i3 Director. Teams utilize social media and distance technology such as Skype, Google+, Oovoo, and Facebook to collaborate throughout the year. The project includes a comprehensive research paper and creative deliverable. Deadlines are set throughout the year for each section of the paper to provide structure and a suggested timeline. The deadline schedule was developed in the first year of the pilot phase (2010-2011) and takes into account key dates in students' academic and non-academic calendars (e.g. holidays, spring break, midterms, and final exams). The project deadline schedule was further refined in the second year of programming (2011-2012) and is listed below.

Team Research Project Schedule & Deadlines		
Project Component	**Notes**	**Due Date**
1. Proposal	1-2 pages; brief list of sources	June 27, 2012
2. Research Paper		
a) Problem Statement and Research Question	~1-2 pages	July 31, 2012
b) Introduction and Background of Problem	~2-4 pages	September 14, 2012
c) Literature Review	~4-6 pages	November 30, 2012
d) Discussion and Analysis of Potential Solutions/Courses of Action	~6-10 pages	February 15, 2013
e) Recommendations	~2-4 pages	March 29, 2013
f) Summary and Conclusions	~1-2 pages	March 29, 2013
g) Abstract	~0.5 page	April 12, 2013
3. Final Draft (fully formatted)	~16-28 pages	May 31, 2013
4. Creative Deliverable	Included in Presentation	June 2013
5. Virtual Research Poster	Completed at Concluding Institute	June 2013
6. Presentation	Completed at Concluding Institute	June 2013

The creative deliverable portion of the project, which was made mandatory in 2012, requires teams to incorporate some creative element into their research project. Examples of a creative deliverable include: mobile apps, blogs, videos, games, data visualizations, business plans, multimedia displays, or any other idea proposed by the team.

Completed research projects from the 2011 cohort included the following topics:

Team Solutions: *iDiscover: Inspiring Youth to Pursue STEM*
Team Solutions pursued a hands-on approach to its research, working with a Baltimore City middle school to create a one-hour, in-school program designed to pique students' interests in STEM education, research, and careers. The team named its program iDiscover and delivered the program to students at Lakeland Middle School in late May, 2012. The team conducted pre and post surveys of the students and analyzed the statistical results.

Team 4.5: *Information Occupation: Using Information Science to Explore Social Movements*
Team 4.5 explored how the Occupy Wall Street (OWS) social movement developed and utilized information communication technologies over a nine-month period beginning in September 2011. Specifically, the team performed a network analysis of Twitter data sets, analyzed Twitter volume over time, and employed an ethnographic approach that included physical and digital participant observation to understand OWS' information practices.

Team Too Cool for Names: *Source Scare: Curriculum Tactics in the Education of Information Literacy and Media Creation*
With an ever-evolving technological landscape, educational frameworks must adapt to constant change to compete—let alone participate—in our contemporary, more globalized society. The Partnership for 21st Century Skills is a model that suggests tools students can use to sift through and re-appropriate information in both critical and creative ways and communicate and collaborate with diverse populations. The integration of the Partnership for 21st Century Skills into a more traditional framework creates a more holistic approach to education. Based on information collected from an extensive literature review, Team Too Cool for Names created a sample curriculum of best practices addressing issues pertaining to information and media literacy.

Team Six Sigma: *Undergraduate Student Financial Managers: Improving College Students' Ability to Manage Debt and Money*
Team Six Sigma investigated the issue of undergraduate student debt and financial management. The team compiled a detailed literature review, considering factors such as student demographics and financial literacy, the effects of widespread loan availability, and the usefulness of financial management resources. The team also explored the creation of a geospatial application for smartphones that would assist students in tracking and managing their daily finances while in college.

Research projects currently underway in the 2012 cohort include the following topics:

Dream Team: *Viral Videos and Media: An Analysis of Commonalities, Context, and Sharing*

Dream Team will investigate how online videos go viral through further research of video characteristics, commonalities, sharing methods, and trends. The Team will also consider the social and cultural implications of viral media in its research. The Team plans to study viral videos that fall into different viewer ranges, sorting videos according to themes (e.g. political, humorous, offensive, informative, musical, instructional, or other). The Team will then analyze these videos for commonalities to better understand the factors that cause a video to go viral. Lastly, Dream Team will test its findings and conclusions by creating a video that is meant to go viral.

Team Gamers: *Sexualization and Gender Roles in Console Gaming*

Team GAMERS will investigate the current generation of gaming consoles. The Team intends to learn why female gamers play games, which games they prefer, with whom do they play games with, the level of intensity at which they play, and whether they immerse themselves enough to not only consume but generate game experiences. The Team will also consider issues relating to hyper-sexualization of genders in the gaming industry, both in-game and out-of-game, the common stereotypical tropes of primary and secondary female characters, and sexism in the online console gaming and gaming tournament worlds. In doing so, Team GAMERS will be able to identify approaches to game design and game marketing that appeal to both genders.

Team Time Zone Scholars (TZS): *Tweet the Vote 2012: The Impact of Social Media Usage on Political Engagement and Public Sentiment in the 2012 Presidential Election*

During the rise of social media and its use in politics, there has been speculation of social media becoming the medium for re-engaging citizens in politics. While there has not been specific research on measuring the connectedness sentiment in political engagement, there has been previous sentiment analysis research on politics regarding how the public feels or responds to issues of interest, particularly with Twitter data. Much sentiment analysis research has been employed to develop predictive methods on the outcomes of political elections. Comparing use and sentiment from Twitter data from periods before, during, and after the presidential elections of 2008 and 2012, Team TZS plans to investigate levels of online and offline political engagement and connectedness.

Team WORC (Will Overcome Research Challenges): *Crisis Informatics and Superstorm Sandy: Information and Communication Technology Usage during Natural Disasters*

Team WORC will investigate the usage of information and communication technology used during natural disasters—most recently Superstorm Sandy. Public officials' use of Twitter and other mobile technology platforms to communicate with constituents proved vital during periods involving blackouts and evacuations. Team WORC will consider other recent natural disasters and the usage of such technologies to share critical information among administrators, constituents, and emergency workers.

Concluding Institute (June, Year 2, Two Weeks)
To complete their experience, i3 Scholars return to the University of Pittsburgh for the two-week Concluding Institute. Because the Concluding Institute overlaps with the Introductory Institute in June of each year, i3 Scholars have a unique opportunity to expand their professional network. Returning i3 Scholars offer their guidance to the new students and take part in cross-cohort projects and design challenges. Returning i3 Scholars also receive additional mentoring from iSchool professionals when creating their future academic and career plans.

Teams spend a majority of the Concluding Institute revising their research and designing a formal poster and presentation. At the end of the Concluding Institute, each team presents their work and fields questions from iSchool faculty and staff. Upon a positive review from the i3 Director and faculty, each team officially graduates from the program and is recognized at a farewell ceremony.[2] The team research project and Concluding Institute are excellent opportunities to gain valuable research experience at the undergraduate level.

For-Credit Internships & Independent Studies
Throughout the program, i3 Scholars will be encouraged to arrange for their team research project to be counted as a for-credit internship or independent study at their home college or university. A limited number of i3 Scholars from the 2011 and 2012 cohorts made such arrangements by consulting with their academic advisors or departmental chairpersons. All arrangements were made at the home institution; the i3 Director provided necessary documentation as requested.

Formally connecting the research project with a student's academic studies creates a powerful incentive for the student to remain involved in the project over the course of the year. Furthermore, because the work will be reviewed for credit, those students are likely to spend more hours on their projects, resulting in higher-quality research. It is important to note that not all students will be able to make such arrangements. Students working on projects that are unrelated to their undergraduate major may encounter resistance from their home-institution faculty advisor or chairperson. The i3 Director will provide additional support to each student interested in pursuing an internship or independent study on a case-by-case basis.

To promote this option to students on a larger scale, recruitment materials—website, pamphlets, and brochures—will be updated. During the admissions process, a letter encouraging students to seek internship or independent study credits will be included in the enrollment contract and

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[2] Because participation in the team research project is a requirement to attend the Concluding Institute (and each team is monitored by the i3 Director and Faculty Advisor throughout the year), the likelihood of negative reviews is considered minimal. However, in the rare instance that a negative review is warranted, the students will be provided the option of revising their project(s) as an independent study during the two months immediately following the Concluding Institute. Students may then submit their work for a second review. If a positive review is granted, the students will graduate from the program, be listed on the website as official i3 Scholars, and become eligible for iSchool scholarships. If a negative review is warranted again, the students will not graduate from the program.

orientation materials. Also, a workshop discussing the creation of internships and independent studies as a source of credit will be held towards the end of the Introductory Institute. An additional reminder will be sent to i3 Scholars at the beginning of each fall semester.

iConference

Upon completing their projects, teams have the option of submitting their work to the iConference, which is the annual academic conference for information scholars, researchers, and professionals. iConference is hosted by a different iSchool each year and involves academic workshops, poster sessions, paper presentations, and alternative events. i3 Scholars receive financial support from the program in the form of travel awards. In 2012, three i3 Scholars attended iConference and assisted the i3 Director in hosting an alternative event addressing diversity in the iSchools. In 2013, a total of nine i3 Scholars attended iConference; three of which presented research posters.

Collaborators and Partners

iSchool faculty and staff and industry professionals are recruited to serve as guest lecturers and speakers during i3. Guest lecturers and speakers develop workshopsand seminars for the students and are paid an honorarium for their services. Throughout the Introductory and Concluding Institutes, approximately 30 professionals from academia or industry typically partner with i3 to work with the students. Faculty and staff from the iSchools are selected based upon their reputation for skilled teaching and mentoring, as well as their strategic connection to specific iSchools.

A select number of iSchools have also partnered with i3 by offering scholarships to i3 Scholars upon admission into graduate programs. iSchools at Carnegie Mellon University, Drexel University, University of Michigan, University of North Carolina at Chapel Hill, University of Pittsburgh, and Syracuse University offer varying scholarships to i3 Scholars for master's degrees.

iSchool	Scholarship Offerings for Master's Degrees
Carnegie Mellon University, Heinz College of Public Policy and Information Systems	50-100% tuition remission No limit on the number of i3 scholarships No application fee
Drexel University, College of Information Science and Technology	50% tuition remission Limited to 1 i3 scholarship
University of Michigan, School of Information	50-100% tuition remission No limits on the number of i3 scholarships Application fee waived
University of North Carolina at Chapel Hill, School of Information and Library Science	100% tuition remission Limited to 1 i3 scholarship

University of Pittsburgh, School of Information Sciences	75% tuition remission Limited to 1 i3 scholarship
Syracuse University, School of Information Studies	50-100% tuition remission No limits on the number of i3 scholarships

Accomplishments, Challenges, & Lessons Learned from Existing Grant

Now in its third year of programming, i3 enjoys several noteworthy accomplishments. The program has demonstrated significant progress in its trial phase and is primed to expand in size and impact. Although characterized by long-term objectives and results, i3 has taken the important first steps in growing the number of underrepresented students in information science graduate programs. Critical challenges identified in prior years will continue to be addressed as the program evolves. Lessons learned are compiled each year and provide a roadmap to further refinement of the program.

Accomplishments
a) 40 students have participated in i3 in the first two years. The 2011 cohort consisted of 21 students; the 2012 cohort consisted of 19 students. The program is expected to meet its goal of recruiting 60 students through the three years of the pilot phase.
b) Two members of the 2011 cohort began graduate programs in the information sciences in September, 2012. Ms. Toni Pizza is currently pursuing an MFA in Game Design at New York University's Tisch School of Fine Arts. Ms. Marcia McIntosh is pursuing a Masters in Information Studies at the University of Texas at Austin's School of Information.
c) An additional eight i3 Scholars (five from the 2011 cohort, three from the 2012 cohort) have applied to graduate programs in the information sciences (or related fields) for admission in September, 2013.
d) Six iSchools—Carnegie Mellon University, Drexel University, University of North Carolina at Chapel Hill, University of Michigan, University of Pittsburgh, and Syracuse University—have agreed to commit funds for scholarship offerings to i3 Scholars admitted into their respective graduate programs. Additional iSchools are currently discussing scholarship offerings and will likely join this list of institutions supporting the i3 Scholars.
e) Nine i3 Scholars attended iConference 2013; three of which presented research posters.
f) The i3 Director delivered a workshop titled '*Building the future iSchools: Visioning, diversity and i3*' at iConference 2012 in Toronto, Canada. Three of the 2011 i3 Scholars assisted with the workshop by sharing with the audience their experiences as minority undergraduate students interested in the information sciences.
g) 19 of 21 (90%) i3 Scholars from the 2011 cohort participated in the team research project. 15 of 21 (71%) i3 Scholars from the 2011 cohort were able to return for the Concluding Institute. Those i3 Scholars unable to attend the Concluding Institute cited

summer classes, internships, or other obligations for their inability to attend. Only 2 students from the 2011 cohort officially dropped out of the program.

h) All four research teams from the 2011 cohort successfully completed the team project. Each team designed a formal research poster and delivered a presentation detailing their work and key findings. All research teams from the 2012 cohort remain actively involved in their projects.

i) 2012 applications grew by 23% (59 total applications). Applications were received from students enrolled in 37 colleges and universities, in 19 different states and U.S. territories. Of the 59 applicants, 26 were female and 33 were male. Over 140 students expressed interest in the program (e.g. emailed/called or submitted a resume) or submitted partial applications.

j) The *2012 Summit on Diversity in the Information Sciences*—a collaborative event organized by the i3 Director and Dr. Randy Weinberg of Carnegie Mellon University— was held on June 8, 2012 during the Introductory and Concluding Institutes. The 2012 Summit was designed to bring together professionals from higher education, industry, and funding institutions to share their experiences and knowledge of diversity programming. The event was sponsored using funds from the Information Systems in the Community program grant administered by Dr. Weinberg. The 2011 and 2012 i3 Scholars attended a portion of the day's events and participated in small-group discussions with a variety of professionals. Presentations were made discussing the design and programming experiences of the Information Systems in the Community program and i3. To conclude the day, a panel discussion was held that included Dean Ronald Larsen (i3 PI) and Dr. Helen Cullyer of the Andrew W. Mellon Foundation, among others. The entire event was streamed live online and archived for future viewing.

Challenges

a) Recruiting the most talented students from underrepresented populations will continue to pose a challenge each year. High-achieving students are typically offered multiple opportunities for academic and professional development in the summer. i3 must compete with corporate internships, externships, academic research programs, summer classes, and study abroad opportunities. As i3 continues to grow, build its reputation, and secure additional scholarship offerings from iSchools, annual recruitment will become less challenging.

b) Recruitment challenges also exist pertaining to students' career opportunities after college. High-achieving students are likely to be offered lucrative employment opportunities in industry directly after their undergraduate careers. Attractive curriculum offerings and iSchool scholarship opportunities will be critical to the appeal of i3 relative to careers in industry. In addition, because some i3 Scholars will choose to work for one or more years before returning to school for graduate study, maintaining relationships with i3 alumni will be an important factor in tracking progress and providing support.

c) Organization of the team research project remains a challenge moving forward. All teams in the 2011 cohort voiced concerns that they did not receive enough support and structure in the project. In particular, students recommended that research advisors take a more active role in the project in the future. However, because research advisors serve in a volunteer capacity, concerns exist regarding work overload.

d) Ideal grouping of students in the team research project remains an elusive goal. Tradeoffs related to team size, research interests, student capabilities, and faculty advisor schedules and specialties must all be taken into consideration. Smaller, more topic-focused teams will allow students to align their specific research interests with the project topic. However, smaller teams require additional research advisors and support from the i3 Director. Ultimately, as the network of research advisors grows, smaller teams may be more feasible to organize and support throughout the year.

e) Cross-cohort socialization proved to be a challenge in 2012. The Office of Housing and Residence Life at the University of Pittsburgh assigned the 2011 and 2012 cohorts to rooms on separate sides of the student dormitory. Furthermore, the Concluding Institute in 2012 was held during the first two weeks of the Introductory Institute, resulting in less time for the new students to form a group identity. Feedback from the 2011 and 2012 cohorts suggested that group socialization would be improved by hosting the Concluding Institute during the last two weeks of the Introductory Institute.

f) Responding to feedback from the 2011 cohort, the i3 Director modified the 2012 Introductory Institute schedule to provide additional time for non-group meals and independent/free time. However, socialization and bonding within and between cohorts was not as strong in 2012. Group meals and activities serve as the best opportunities to encourage strong relationships between i3 Scholars. Future curriculum modifications will prioritize downtime that is still group-oriented.

Lessons Learned
a) Prioritize quality over quantity in curriculum and scheduling development. Workshops and hands-on projects that develop technical competencies, writing skills, and knowledge of research methods are central to programmatic growth.

b) Develop the recruitment pipeline through strategic partnerships with other organizations such as Gates Millennium Scholars, McNair Scholars Program, and the iSchools Consortium.

c) Increase iSchool support and networking by recruiting new faculty and staff to serve as guest lecturers, speakers, and research advisors.

d) Identify sources of alternative funding to sustain the program indefinitely. The iSchools Consortium, University of Pittsburgh, government agencies, private foundations, and admission fees from students will all be considered as sources of partial or complete program funding.

e) Expanding iSchool scholarship offerings for i3 Scholars must remain a high priority moving forward. Scholarship offerings will drive applicant recruitment, reduce i3 Scholar attrition, and build long-term connections between the program and iSchools.

f) Student recruitment for summer programs ranges from late fall through the spring semester. Recruitment efforts made in early fall semesters are largely wasted.

g) Group meals and activities serve as the best opportunities for socialization and integration among cohorts. Curriculum modifications should prioritize group downtime events, despite students' desire for additional independent time.

h) Communication and structure from the i3 Director is paramount to the early development and long-term success of the team research projects. Undergraduate students rarely possess the maturity required to manage a geographically distributed team in a self-directed research project. Structure in the form of routine meetings, mandatory updates, and hands-on advising will improve the team research experience.

i) The Assistant Director position is critically important to multi-cohort management and should be filled by a candidate possessing mentoring experience and a strong educational background in the information sciences.

Job Titles and Descriptions

i3 is managed by the University of Pittsburgh School of Information Sciences under the supervision of Principal Investigators, Dean Ronald L. Larsen and Assistant Professor James "Kip" Currier. The PIs provide strategic oversight of the project and work to promote the program within the iSchools Consortium.

The Project Director, Michael Depew, oversees all academic and programmatic decisions, leads the Introductory and Concluding Institutes, and serves as the lead Resident Assistant in student housing. The Project Director also provides support and guidance to each research team and faculty advisor during the year-long research project. With the expansion of the i3 cohort to 25 students, the number of research teams will increase and require additional attention.

In 2012, it was determined that a temporary Assistant Director position was needed due to the challenges associated with hosting two cohorts of students simultaneously. The Assistant Director position is a one-month, temporary position to be filled by a graduate student with mentoring experience. The i3 Director, in consultation with the project PIs, extends an invitation to a graduate student who has demonstrated interest in, and familiarity with the program.[3] During the Introductory and Concluding Institutes, the Assistant Director provides support in the following areas:

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[3] In 2012, the Assistant Director position was filled by Ms. Courtney Loder. Ms. Loder was then a student in the Master of Library and Information Sciences program at the University of Pittsburgh. Ms. Loder has accepted the invitation to return as Assistant Director for 2013. She is now a doctoral student at the iSchool at the University of California at Irvine.

- Serves as an additional Resident Assistant (RA) in the student dormitory
- Coordinates daily tasks and activities for the Concluding Institute
    - Technology setups, meal setups/cleanups, guest lecturer introductions
- Assists research teams in developing formal posters and presentations
- Serves as an additional mentor and lecturer for both cohorts of i3 Scholars
- Manages the i3 Wiki, to be used as a collaborative online space

Faculty research advisors are selected each year to provide guidance to student research teams. In 2011, four faculty members—all members of underrepresented populations—served as research advisors. The relationship between faculty research advisor and research team is critical to the overall success of the year-long team project. Structured environments and hands-on advisors are necessary to provide the level of support and guidance that the students require.

Guest lecturers and speakers are recruited from iSchool faculty and staff as well as industry professionals with connections to the information sciences. Guest lecturers and speakers develop workshops, seminars, and activities for the students and are evaluated by the Project Director through in-session observations. Student feedback—both informal and formal—is also taken into consideration when evaluating guest lecturers and speakers. Informal feedback consists of conversations between the i3 Director and students. Formal feedback is gathered in the program evaluation surveys distributed to students after the Introductory and Concluding Institutes.

i3 Doctoral/Post-Doc Teaching Fellows
To further expand and strengthen program curriculum, four new i3 Doctoral/Post-Doc Teaching Fellows positions will be created. The positions will be available for doctoral students or post-docs, preferably from iSchools. Teaching Fellows will be tasked with co-teaching a two week course on a specific topic (1.25 hours per day). Two Teaching Fellow positions will be reserved for co-teaching a two-week introductory course to a programming language. This course will be held during the first two weeks of the Introductory Institute. An additional two Teaching Fellow positions will be dedicated to co-teaching a two-week course on research design, to be held in the second and third week of the Introductory Institute. Because these abbreviated courses will span multiple days, students will gain a more extensive understanding of material critical to success in graduate programs.

In addition to strengthening the program curriculum, this offering will serve as another opportunity for i3 to build lasting relationships with the iSchools and promote further buy-in at the organizational level. Four Teaching Fellow positions per year will be made available to doctoral students (or post-doctorate researchers) at the iSchools. The Teaching Fellows will bolster their CVs by adding valuable teaching experience and service activities related to diversity. Overlapping schedules and co-teaching arrangements will provide Teaching Fellows

the opportunity to network and collaborate on research. Teaching Fellows will also be mentored by faculty at the University of Pittsburgh iSchool during their time on campus.

An announcement advertising the Teaching Fellow positions will be distributed to the iSchools in the summer and fall semesters of each year. The positions will also be listed on the iSchools website. To apply, candidates will be required to submit a CV, letter of intent, evidence of superior teaching ability (including teaching evaluations, if available), and a brief list of references. Candidates must be enrolled in a doctoral program or under contract as a post-doctorate researcher; candidates studying or working at iSchools will receive priority consideration. An application deadline will be set in mid-March to ensure applicants have finalized alternative summer plans and are able to fully commit to the positions. The i3 Director and PIs will review all Teaching Fellow applications and select the top candidate for each position.

Project Timeline
The proposed duration for continuing i3 is a three year (36 month) period, beginning in July 2013 and ending in June 2016. During that period, i3 cohorts will be expanded to 25 students, new marketing materials will be designed and printed, and programming activities will continue to be developed and expanded. Recruitment lists for referral and student audiences will be redeveloped each recruitment cycle. The referral audience network will be expanded and the student audience, which is characterized by routine turnover in student groups and class standing, will be regenerated each year for direct marketing purposes.

Regarding programmatic changes, a set of two-week courses introducing students to coding/programming and research design will be added to the curriculum and refined over time. These abbreviated courses will be taught by i3 Doctoral/Post-Doc Teaching Fellows. Because each i3 cohort includes students from technical and non-technical majors, programming courses will be designed to accommodate beginner and advanced levels of expertise. Additional time in the Introductory Institute will be dedicated to improving skills and knowledge of research design and methods. To build and strengthen relationships with the iSchools, a limited number of new guest lecturers and speakers from different iSchools will be invited to participate each year.

A proposal for long-term sustainable funding from the iSchools Consortium will be developed and submitted for approval. Alternative sources of sustained funding will also be explored as possible substitutes and/or complements to the iSchools Consortium, including the University of Pittsburgh, government agencies, private foundations, and admissions fees from students. A full project timeline is provided in the table below.

Project Timeline			
Project Activities	**Year 4 (2013-2014)**	**Year 5 (2014-2015)**	**Year 6 (2015-2016)**
Team Research Projects *Project Director*	• Establish relationship between teams and advisors • Create online team workspaces and host videoconferencing sessions for Project Managers and Research Advisors • Evaluate and modify team research project assignment as necessary		
Foundation Reporting *PIs & Project Director*	• Submit interim report	• Submit interim report	• **Submit final three-year summary report**
Marketing & Recruitment *Project Director*	• Cohort 4 • Develop recruitment lists for referral and student audiences • **Redesign and print marketing materials**	• Cohort 5 • Develop recruitment lists for referral and student audiences	• Cohort 6 • Develop recruitment lists for referral and student audiences
Applications & Admissions *Project Director*	• Revise application as necessary • Track and organize application materials • Assemble admissions committee and review applications		
i3 Scholar Graduate School Applications *Project Director*	• Write letters of recommendation for i3 Scholars • Review letters of intent/personal statements and resumes • Connect i3 Scholars with iSchool recruiters and admissions personnel		
iConference *Project Director*	• Coordinate logistics and travel awards for i3 Scholars • Provide assistance to i3 Scholars for research submissions		
Curriculum *PIs & Project Director*	• Refine curriculum and schedule based on experience • Collaborate with iSchool faculty and staff to develop new workshop/seminar offerings		

Institute Personnel & Logistics *Project Director*	• Recruit guest lecturers and speakers and coordinate all necessary logistics—housing, transportation, stipends, honorariums, dining, etc. • Fill Assistant Director position • Recruit and select i3 Doctoral/Post-Doc Teaching Fellows		
Host Introductory Institute *PIs & Project Director*	• Cohort 4 – 25 students • Project Director serves as Resident Assistant in Student Dormitory	• Cohort 5 – 25 students • Project Director serves as Resident Assistant in Student Dormitory	• Cohort 6 – 25 students • Project Director serves as Resident Assistant in Student Dormitory
Host Concluding Institute *PIs & Project Director*	• Cohort 3 – 20 students • Project Director serves as Resident Assistant in Student Dormitory	• Cohort 4 – 25 students • Project Director serves as Resident Assistant in Student Dormitory	• Cohort 5 – 25 students • Project Director serves as Resident Assistant in Student Dormitory
Program Evaluation *PIs, Project Director, CEAC*	• Coordinate program evaluation efforts with University of Pittsburgh's Collaborative for Evaluation and Assessment Capacity (CEAC) • Survey i3 Scholars, i3 Alumni, and research advisors • Integrate key findings and trends into interim reports		
Sustainability & iSchools Relations *PIs & Project Director*	• Recruit additional iSchools to offer i3 scholarships • Work with core group of iSchools to develop sustainable funding proposal	• Recruit additional iSchools to offer i3 scholarships • Refine sustainable funding proposal • Investigate additional sources of funding *(alternatives to iSchools proposal)*	• Recruit additional iSchools to offer i3 scholarships • Submit sustainable funding proposal to iSchools for approval • Investigate additionalsources of funding *(alternatives to iSchools proposal)*

PROJECT GOALS & OUTCOMES

Objectives

The iSchool Inclusion Institute (i3) was developed to address a critical problem within the information sciences: a lack of diversity among students and faculty. i3 is based on the premise that a faculty that represents the diversity of the overall population will draw students into the information professions and the academy.

Short-Term Goals

a) To build awareness of the breadth and depth of opportunities for academically-oriented careers in the information sciences among i3 Scholars.

b) To deliver education to i3 Scholars that develops their understanding of information career requirements and paths to success.

c) To provide mentoring by iSchool faculty around a multi-disciplinary team project that engages i3 participants in the technical and social elements of information work.

d) To refine the recruitment and selection of target i3 candidates over an initial three-year project period.

e) To provide an on-campus, residential summer educational experience, designed to increase awareness of information science graduate study and career opportunities for target i3 candidates.

f) To develop a sense of community among i3 Scholars that bridges the two summer institute experiences and sustains itself beyond to promote continuity, reinforcement, beneficial peer relationships, and multi-faceted support.

g) To assess progress regularly toward the above goals on a cohort basis, considering the experiences of participants, instructors, mentors, and staff.

Longer-Term Goals

a) To provide individualized learning opportunities for i3 student participants to develop knowledge and skills in information science (IS)-related domain areas and raise awareness of IS career opportunities.

b) To develop a network of faculty mentors, student mentors, and external resource persons who would encourage and assist i3 participants throughout their graduate studies and careers.

Ultimate Goal

a) To develop a prestigious and competitive program that attracts high performing students from underrepresented segments of the population to seek academic careers in information schools.

Deliverables
   a) 75 students will participate in the Institutes over the three year period (2013-2016).
   b) At least 80% of the Institute students will complete the two Institutes and the research project.
   c) At least 60% of the Institute students will apply for graduate study at one of the iSchools.
   d) The pool of PhD candidates from underrepresented segments of the population or those who have a demonstrated commitment to eradicating racial disparities interested in academic positions in iSchools will increase by at least 4 per year.

PROJECT EVALUATION

Project evaluation services will again be provided by the University of Pittsburgh's Collaborative for Evaluation and Assessment Capacity (CEAC). A brief background of CEAC is provided below. Past evaluation results and key findings from the first two years of programming are also presented.

> The Collaborative for Evaluation and Assessment Capacity (CEAC) addresses pressing evaluation and assessment needs by drawing on resources throughout the University of Pittsburgh's School of Education and the evaluation community at large. Through interdisciplinary and interagency collaboration, affiliates of CEAC work together to merge technical, evaluative, research design, statistical, and theoretical expertise to best address practical evaluation and assessment issues.
>
> CEAC is one of a number of field-based initiatives within the School Leadership Program, in the Department of Administrative and Policy Studies, at the School of Education, University of Pittsburgh.Every CEAC evaluator has completed training with the University of Pittsburgh Institutional Review Board and has applied for and received Act 33/34 clearance.
>
> Dr. Cynthia A. Tananis, Associate Professor, and Director of CEAC, will conduct the evaluation for i3. Dr. Tananis is well positioned and qualified to conduct this evaluation. She has been an educator and evaluator for over 30 years, is familiar with educational reform initiatives. CEAC currently serves as the evaluator of over 20 other educational initiatives, including large federally sponsored projects, such as the Math Science Partnership of Southwestern Pennsylvania, Pennsylvania's Keystones to Opportunity, and Carnegie Mellon's Alice project.

Past Evaluation Results
In Spring 2011, i3 contracted with CEAC to evaluate its 2011 Introductory Institute. A pre-post design survey of all students engaged in the Introductory Institute was implemented. The survey was developed during the Spring 2011 academic term and administered during the Summer 2011 Institute. A second follow-up post survey was administered to the Year 1 cohort in Summer 2012 after the Concluding Institute.

The 2011 cohort summer pre/post surveys were designed to elicit attitudes and feedback from students' experiences in the Introductory Institute. The pre-post design allowed for a comparison of student attitudes, interests, and academic plans related to engagement in the information sciences both before and after participation in the Introductory Institute. The pre/post surveys for the Introductory Institute were also administered to the 2012 cohort in the second year of the program. The surveys were administered online and results were analyzed by CEAC evaluators. Specific areas included:

a) Past course experience with mathematics, science, computer and information sciences (pre)
b) Student perception of learning and their success during the Institute (post)
c) Satisfaction with instruction and learning during the Institute (post)
d) Future plans to enroll in success-trajectory courses such as mathematics, science and information sciences for continued undergraduate studies (pre and post)
e) Plans to enroll in related graduate studies (pre and post)
f) Interest in related careers (pre and post)

The second follow-up survey, which occurred in summer 2012, garnered information about the students experience with the year-long project and the Concluding Institute. The survey also solicited feedback from students regarding their plans to enroll in graduate study and interest in related careers.

Notable Findings from 2011 Cohort – Introductory Institute Surveys
- Respondents reported the likelihood that they would pursue graduate, doctoral degrees and careers in Information Sciences increased after their participation in the summer institute.
- Nearly all (17 of 21 respondents on the baseline and 17 of 19 respondents on the post) indicated mentoring was very important.
- Nearly all respondents (95.2%) indicated it was very important that they complete an undergraduate degree while about two thirds (61.9%) indicated it was very important that they complete a graduate degree.
- Nearly half (45.0%) of the respondents have had an interest in the field of information science for 1-2 years.
- Nearly half (47.6%) of the respondents indicated that their future career goals require an advanced degree.
- Respondents reported increases in nearly all content knowledge items.
- Female respondents reported greater increase in likelihood of pursuing advanced degrees.
- Female respondents also reported greater knowledge gains in most areas of information science content topics.

- Respondents commented positively and widely on the program in the open-ended question section of the post survey. Of particular mention were Dr. Knobel and Larry Quinlan.

Notable Findings from 2011 Cohort – Concluding Institute Surveys
- Cohort 1 respondents reported increases in all content knowledge items when compared with baseline responses.
- Nearly all Cohort 1 respondents indicated they were knowledgeable or very knowledgeable on the diversity and breadth of subject areas within the Information Sciences (15 of 15), Faculty Expectations of graduate-level work (14 of 15), processes and requirements for applying to graduate school and selecting an academic program (15 of 15), identifying funding opportunities for graduate study (15 of 15), and the skill sets necessary for success in graduate school (15 of 15).
- Nearly all Cohort 1 respondents indicated that mentoring and participation in professional associations were very important (100% regarding mentoring and 92.8% regarding professional associations, n=14).
- Nearly all Cohort 1 respondents (92.9%, n=13) indicated that they were interested or very interested in pursuing information science related careers after participation in the Concluding Institute.
- A majority of Cohort 1 respondents (71.4%, n=10) indicated they felt supported during their college experience as a result of their i3 participation.

Notable Findings from 2012 Cohort – Introductory Institute Surveys
- Cohort 2 Summer Institute respondents were less geographically diverse than Cohort 1 respondents. While Cohort 2 respondents were from nine different states, Cohort 1 respondents traveled from eleven states and one U.S. territory.
- Both the 2011 and 2012 cohorts had a majority of female respondents. However, in 2012 the percentage became closer to equal with female respondents decreasing 7%.
- The Cohort 2 participants were more diverse than the Cohort 1 participants. American Indian, Asian, and Latino all increased their populations by at least one individual. Black or African Americans and Other decreased by one participant. White and multi-racial students remained the same.
- The 2011 and 2012 cohorts shared high levels of interest in pursuing a career in Information Science and graduate studies in Information Science prior to engaging in i3.

Cohort Return Rate

The 2011 cohort consisted of 21 students; 19 of which remained active in the program throughout the year. A total of 15 of those students were able to return for all or a portion of the Concluding Institute in June 2012. The four students who remained active in the program but were unable to return for the Concluding Institute cited internships, summer classes, jobs, and

other obligations as reasons for their absence. Consequently, the 2011 cohort maintained a cohort return rate of 71%. The 2012 cohort is currently engaged in their team research projects and is scheduled to return for the Concluding Institute in the latter half of June 2012.

Future Retention/Tracking Across Student Cohorts
Seventy five students will participate in the Institutes over the three years (2013-14, 2014-15, and 2015-16). Sixty students will have participated in the i3 program from 2010-2013. Given that students engage in an Introductory and Concluding Institute as well as a long term research project between institutes, it is important to track student participation across time to document any attrition and the overall implementation of the program's main intervention.

New Summer Institute Alumni Survey
CEAC will conduct an alumni survey of all participants that completed the Introductory and Concluding Institutes. Alumni will be surveyed after their projected graduation date. The survey will be designed to collect data on alumni perception of and experience in information-related careers and graduate study. With program outcomes focusing on participants' entrance into the information sciences higher education faculty pipeline, collecting post-graduation data on participants is vital to program evaluation. The alumni survey will be developed in the spring of 2014 and first administered in the summer of 2014. The survey will be administered online.

Specific areas will include:
  a. Experience in information-related careers and graduate study
  b. Aspects of i3 program that were particularly useful to careers and graduate study
  c. Perception of i3 program's impact of career and graduate school experience
  d. Characteristic data

Cost Analysis
CEAC's proposal assumes varied costs across project years because of the need to develop instrumentation in the Year 4 that can be reviewed and revised in subsequent years without the need for more instrument development. A detailed scope of work is included in the appendix.

  • Year 4: $ 19,175
  • Year 5: $ 14,175
  • Year 6: $ 14,175

Total Across Three-Year Evaluation: $ 47,525
Average Annual Cost Across Years: $ 15,841

LONG-TERM FUNDING & SUSTAINABILITY

In order to sustain i3 after funding from the Andrew W. Mellon Foundation is exhausted, alternative sources of future support must be identified and secured. Possible sources that have been identified thus far include the University of Pittsburgh and the iSchools Consortium. Private foundations, corporate sponsorship programs, Federal agency grants, and admissions fees from students will also be explored and considered.

Securing long-term funding from the iSchools Consortium is considered the most appropriate course of action due to the natural linkages between i3 and the iSchools. Currently, the iSchools have two levels of membership. Full members of the iCaucus pay $5,000.00 per year to support the work of the group. Second tier members pay $500.00 per year and are represented on the iCaucus by a voted member who represents the interests of ten second tier members. The iSchools Consortium has set an important precedent for collective funding, and has the mechanism in place to support projects of mutual interest. The i3 PIs and Project Director will utilize that precedent to explore long-term funding with the iSchools Consortium.

Beginning in Year 4 (2014-2015), the i3 PIs and Project Director will work with a core group of iSchools to develop a sustainable funding proposal. That proposal will be refined over the course of Year 5 and eventually submitted to the iSchools Consortium for approval in Year 6. As of 2013, there are 23 U.S.-based iSchools and that number will continue to grow as the iSchools Consortium expands. Cost sharing among the various U.S.-based iSchools would provide a long-term solution to funding and further strengthen the relationship between i3 and the iSchools. Financial support and commitment from the iSchools will likely only occur if a history of impressive programming results is established. Therefore, it is imperative that i3 continue to grow in size and impact, increase admissions standards over time, and develop lasting relationships with iSchool leadership.

If the iSchools Consortium is willing to commit to partial funding of i3, it will be necessary to combine multiple sources of alternative funding together to maintain the program. Strategic partnerships with organizations such as the Gates Millennium Scholars program, which provides scholarships for students from undergrad through doctoral study, may provide incentives for the iSchools to offer additional support for programming in lieu of internal scholarships. Partial, recurring funding from the iSchools could be combined with financial support from the University of Pittsburgh, which has identified diversity as a major institutional goal. Other universities and colleges that have demonstrated a commitment to diversity, and have an iSchool on campus, could serve as additional financial partners. Grants from private foundations, corporate partners, or government agencies could also be used to complement funding from the iSchools Consortium. Operating expenses could be reduced by limiting programming support to students or implementing admissions fees. Student stipends, meal vouchers, and travel support

could all be reduced to minimize annual expenditures. Admissions fees charged to students would generate revenue to offset programmatic expenses.

Lastly, in the case that a limited amount of financial support from alternative funding sources is secured, modifications to the program will be considered. The Concluding Institute could be reduced to a one-week experience. One or more weeks of the residential Introductory Institute could be replaced with an online, distance technology-based curriculum. Although these measures would likely include costly tradeoffs in regards to the program's effectiveness and growth, all options will be considered to sustain the program in the long-term.

REPORTING

Interim and final reporting to the Andrew W. Mellon Foundation will occur according to the existing reporting schedule. Reports will be submitted no later than September 30 of each year (2014, 2015, 2016). The PIs and Project Director will submit all narrative reports; official financial reports will be coordinated with, and submitted by, the University of Pittsburgh's Office of Research and Cost Accounting. Interim reports will include the following:

- a cover letter submitting the interim report, reflecting the year under discussion
- financial reporting documents as required by the Andrew W. Mellon Foundation
- copies of any reports, marketing materials created during the project year
- copies of any articles and electronic media about the Institutes
- a narrative discussing general Institute outcomes (including, but not limited to):
  - o how many students participated
  - o how many students completed the Introductory and Concluding Institutes
  - o how many faculty/advisors from the U.S.-based iSchools participated
  - o how many faculty/experts (non-iSchool) participated
  - o lessons learned during the Institute
  - o any changes in staffing/management during the project year
  - o budget evaluation and planning
  - o plans/changes for the next year of the project

In addition, interim reports will include any results available from the outside evaluators to include their assessment of progress to meeting the short-term goals, as appropriate and described in this proposal.

At the end of the three-year period (2013-2016), the PIs will submit a final report to the Andrew W. Mellon Foundation. This will be submitted by January 31, 2017. In this report, the following items will be included:

- a complete financial accounting for all three years of the project
- a complete collection of any media articles about the institute
- a discussion of management of the project
- a synthesis of the interim reports, providing a cumulative look of the past three years
- a discussion of successes and "lessons learned" from the project
- copies of all reports and materials created for the project

BUDGET NARRATIVE

A total of **$818,201.20** of funding over a period of 3 years is proposed to continue operating and further develop the iSchool Inclusion Institute (i3). Funding would correspond to year 4 (July 2013- June 2014) through year 6 (July 2015- June 2016). During that period, the Co-PIs and Project Director would explore alternative sources of funding and support in order to sustain the program indefinitely. In the attached budget spreadsheet, program expenditures are listed in two separate tabs. The first tab—*Year 4-6 Internal Budget*—corresponds to the Director and PI's internal accounting and budget organization. Expenditures are categorized according to major program areas. The second tab—*Year 4-6 University Budget*—corresponds to the University of Pittsburgh's Office of Research and Cost Accounting budget categories. Expenditures are categorized according to official University subcodes. The *Year 4-6 University Budget* tab will be used for financial reporting purposes. However, because University subcodes aggregate some program expenses into categories that are rather unintuitive (e.g. student housing expenses categorized as travel), the *Year 4-6 Internal Budget* tab is provided for additional reference.

Salary, Benefits, & Administrative
Salary and benefit expenditures for the Project Director and Co-PI would grow at an annual rate of 3%. A total of 15% of Co-PI effort would be charged to the grant (Co-PI annual salary in 2012-2013 was $66,226.00). Fringe benefits for faculty and staff are set by the University of Pittsburgh at 36.1% and 41.7%, respectively. FICA is set at 7.65% according to Federal statute. Increased usage of physical mailings for marketing and recruitment materials to referral and student audiences are expected to total $300.00 per year. New marketing materials will be designed and printed in Year 4 and are capped at $8,000.00 for bulk printing. Current marketing materials were created before the first year of programming and lack many critical details and features of the program. Updated marketing materials will feature actual i3 Scholars, highlight the most attractive components of the program, and aid in the sustained growth in student applications.

Travel awards for i3 Scholars to attend iConference comprise the single largest line-item in the administrative budget category. Travel awards are set at $650.00 per i3 Scholar, for 12 i3

Scholars. iConference expenses for the Project Director's travel and registration fees are listed at $2,000.00 each year ($500.00 in registration fee + $700.00 for conference hotel + $500.00 for transportation + $300.00 for food). The iConference is the premier annual academic and research conference for iSchools and information professionals. Because few, if any, i3 Scholars have ever attended an academic conference, iConference serves as an excellent opportunity for students to observe and participate in research presentations, poster sessions, and professional networking opportunities. In addition, iConference is held in February each year—roughly halfway through the i3 program—and therefore offers i3 Scholars and the Project Director an opportunity to meet and discuss team research projects. Most importantly, i3 Scholars may submit research posters or papers from their team projects to iConference for conference publication. Two teams from the 2011 cohort successfully submitted their research posters to the 2013 iConference and presented during the poster session in February in Fort Worth, Texas.[4] A total of nine i3 Scholars attended iConference 2013. Each student received a travel stipend of $650.00 ($250.00 registration fee + $400.00 for travel and lodging) to help pay for conference expenses.

A total of $1,500.00 per year is allocated to recruitment and networking at conferences, not including iConference ($750.00 in registration fees and transportation for 2 conferences). Examples of notable conferences that would be considered include: Hispanic Association of Colleges and Universities (HACU), National Society of Black Engineers (NSBE), McNair Scholars Program, and Gates Millennium Scholars Program. Spending on recruitment and marketing at university career/internship fairs, which has proven a highly successful method of attracting applicants, would be capped at $2,500.00 per year ($625.00 in registration fees and transportation for 4 career/internship fairs). Telephone, telecommunications, and videoconferencing are expected to cost $600.00 per year. The general office supplies category is allocated a total of $1,000.00 per year. A campus parking pass for the Project Director for the month of June will cost approximately $100.00.

Institute Expenditures
To maximize returns on foundational investment and program expenditures, i3 cohorts will be expanded to 25 newly admitted students per year in years 4-6. An important, yet unknown factor in forecasting institute expenditures is the cohort return rate for i3 Scholars. Due to a limited number of years of historical program data, cohort return rates are forecasted conservatively in order to maximize anticipated incurred expenses. Cohort return rates for years 4-6 are forecasted to be 80%—meaning 80% of the initial cohort that participated in the Introductory Institute from the previous year will complete the team research project and return for the Concluding

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[4]All three of the i3 Scholars that presented research posters at iConference 2013 have applied to iSchool graduate programs for Fall 2013—one at the masters level and two at the doctoral level.

Institute.[5] With moderate increases in cohort size, 75 i3 Scholars will complete the Introductory Institute and 55 of those students are expected to complete all portions of the program.

Major institute expenditure categories directly related to students include stipends, meals, housing, and transportation/entertainment. i3 Scholar stipend payments remain flat at $50.00 per student per day. Student meal expenditures include direct payments through WePay cards, campus catering, the Project Director's Pitt Funds Card (used by University staff and faculty for ad-hoc purchases from local vendors and supermarkets), and opening/closing ceremonies. Payment amounts via WePay cards—set at $15.00 per day per student—were reduced from previous years' budgets in favor of more group meals provided by campus catering. Campus catering is capped at $10.00 per day per student. Opening and closing ceremony expenditures are limited to $4,000.00 per year ($20.00 per person for 100 individuals at opening and closing ceremonies).

Modest increases in summer housing rates and i3 Scholar transportation costs are expected over the three year period. Summer housing rates at the University of Pittsburgh are currently set at $52.00 per individual per night for single occupancy rooms, and $29.00 per individual per night for double/triple occupancy rooms. Transportation expenditures to/from Pittsburgh for i3 Scholars are forecasted at $350.00 per student in Year 4, and increase to $375.00 and $400.00 per student in Years 5 and 6, respectively. The local travel and entertainment category includes a variety of expenditures—city bus passes, social outings, and educational field-trips—and is limited to $3,000.00 per year.

Speakers/Lecturers expenditures include honorariums, travel and housing, and campus technical setup fees. Honorariums for guest speakers are set at $500.00 per speaker; $600.00 is allocated in travel and housing funds for each guest speaker ($400.00 in travel + $200.00 in lodging). Honorariums for guest lecturers are set at $250.00 per lecturer, and $600.00 is allocated in travel and housing funds for each lecturer ($400.00 in travel + $200.00 in lodging). It was determined by the PIs and Project Director that honorariums would not be paid to faculty members of the University of Pittsburgh's School of Information Sciences—instead their services would be considered in-kind contributions to the program. Furthermore, cost savings in guest lecturer travel and housing are achieved by utilizing faculty and staff from neighboring Carnegie Mellon University. Four Doctoral/Post-Doc Teaching Fellow positions will be established and will include an honorarium, on-campus housing, travel to/from Pittsburgh, and funds for course supplies. Teaching Fellow positions will cost a total of $9,912.00 in Year 4, rising slightly in Years 5 and 6. Year 4 cost calculations per Teaching Fellow are as follows: ($100.00 daily honorarium x 10 days co-teaching) + ($52.00 on-campus housing/night x 14 nights) + $500 travel to/from Pittsburgh + $250.00 course supplies.

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[5] Cohort return rate always applies to the previous year's cohort to estimate how many i3 Scholars will be returning for the Concluding Institute. For example, in year 4, a cohort return rate of 80% is applied to the initial admitted cohort from year 3 (19 students), because year 3 i3 Scholars will return for the Concluding Institute in year 4.

A total of $8,000.00 will be spent on speakers at the opening 'keynote' and closing 'graduating' ceremonies ($3,000.00 honorarium + $1,000.00 for travel and lodging, per speaker). A list of past speakers is provided below. Both ceremonies serve as excellent opportunities to promote the program to the academic and professional community. Technical charges for hosting events at the William Pitt Union are listed at $450.00 per year ($150.00 for technical setup and support for three speaking events).

Year	Opening Speaker	Closing Speaker
2011	**Ms. Farai Chideya** *Author & Journalist*	**Dr. Kathy Humphrey** University of Pittsburgh *Vice Provost and Dean of Students*
2012	**Dr. Freeman Hrabowski** University of Maryland Baltimore County *President*	**Dr. Alfred Moye** University of Pittsburgh *Trustee* Hewlett-Packard Company *Former Director, University Affairs (retired)*

Supplies and materials expenditures during the Introductory and Concluding Institutes range from $6,000.00 to $7,000.00 over the three year period. In year 4, supplies and materials expenditures include $3,500.00 in technology purchases, $1,500.00 in academic materials (books and journal/magazine publications), $500.00 in institute and graduation materials (binders and pad-folios), and $500.00 in i3 promotional items (t-shirts, lanyards, and synch-sacks). In year 5 and 6, supplies and materials expenditures increase gradually in all subcategories. Annual technology purchases made for i3 Scholars (e.g. laptops and tablets) are critical to the growth of the program and curriculum, as well as the inclusion of those students who do not own a laptop. Purchases of innovative technologies will be made each year at an incremental level in order to provide students with opportunities for experimentation and hands-on learning.

Project evaluation services provided by CEAC are listed at $19,175.00 in year 4 and $14,175.00 in year 5 and 6. A detailed quote is included in the appendix. As i3 continues to develop in size and curriculum, information gathered through evaluation activities such as participant and alumni surveys will prove critical to identifying areas of success and potential concern. Furthermore, a strong record of evaluation from an external vendor will likely provide additional support to the long-term funding proposal submitted to the iSchools Consortium.

External Funding/Expenses

External funding is listed at $1,500.00 in Year 4 and increases by $500.00 each year in Year 5 and 6. External funding and sponsorships will be solicited from individuals and organizational partners in order to build and strengthen relationships with i3. Graduate school application fees are paid for by the program in order to encourage i3 Scholars to apply to several iSchools. i3 offers to reimburse for three iSchool graduate application fees. Across all three years, application fees are assumed to average $70.00 per iSchool. In Year 4, 10 i3 Scholars are forecasted to apply to iSchools, resulting in a total expenditure of $2,100.00. In Year 5 and 6, the number of i3 Scholars applying to iSchools is anticipated to grow to 12 and 14, respectively.

University of Pittsburgh, School of Information Sciences
iSchool Inclusion Institute, Renewal of Funding, Internal Budget Categories
Year 4 (July 2013 - June 2014) - Year 6 (July 2015 - June 2016)

EXPENDITURES	Year 4: 2013-2014	Year 5: 2014-2015	Year 6: 2015-2016	Year 4-6 Totals
Salaries				
James Currier, Co-PI, 15% effort	$ 10,232	$ 10,539	$ 10,855	
Project Director	$ 43,500	$ 44,805	$ 46,149	
Assistant Director (Temporary)	$ 2,000	$ 2,060	$ 2,122	
Subtotal Salaries	$ 55,732	$ 57,404	$ 59,126	$ 172,262
Benefits				
Fringe Benefits - Faculty (36.1%)	$ 3,694	$ 3,805	$ 3,919	
Fringe Benefits - Staff (41.7%)	$ 18,140	$ 18,684	$ 19,244	
FICA - Graduate Student Mentors (7.65%)	$ 153	$ 158	$ 162	
Subtotal Benefits	$ 21,986	$ 22,646	$ 23,325	$ 67,957
Administrative				
Regular Mail	$ 300	$ 300	$ 300	
New Marketing Materials	$ 8,000	$ -	$ -	
iConference				
Travel Awards for i3 Scholars ($650.00 per student)	$ 7,800	$ 7,800	$ 7,800	
Director's Travel & Registration Fees	$ 2,000	$ 2,000	$ 2,000	
Recruitment & Networking at Conferences ($750.00 per fair)	$ 1,500	$ 1,500	$ 1,500	
Recruitment at Career Fairs ($625.00 per fair)	$ 2,500	$ 2,500	$ 2,500	
Telephone/Telecommunications	$ 600	$ 600	$ 600	
General Office Supplies	$ 1,000	$ 1,000	$ 1,000	
Campus Parking Pass for June	$ 100	$ 100	$ 100	
Subtotal Administrative	$ 23,800	$ 15,800	$ 15,800	$ 55,400
Institute Expense				
Student Stipends				
Number of i3 Scholars - Introductory Institute	$ 25	$ 25	$ 25	
Number of i3 Scholars from Previous Year - Concluding Institute	$ 15	$ 20	$ 20	
Cohort Return Rate	*80%*	*80%*	*80%*	
Number of Days - Introductory Institute	$ 25	$ 25	$ 25	
Number of Days - Concluding Institute	$ 12	$ 12	$ 12	
Stipend Per Day	$ 50	$ 50	$ 50	
Cohort 1	$ -	$ -	$ -	
Cohort 2	$ -	$ -	$ -	
Cohort 3	$ 9,120	$ -	$ -	
Cohort 4	$ 31,250	$ 12,000	$ -	
Cohort 5	$ -	$ 31,250	$ 12,000	
Cohort 6	$ -	$ -	$ 31,250	
Cohort 7	$ -	$ -	$ -	
Cohort 8	$ -	$ -	$ -	
Cohort 9	$ -	$ -	$ -	
Subtotal Stipends	$ 40,370	$ 43,250	$ 43,250	$ 126,870

EXPENDITURES	Year 4: 2013-2014	Year 5: 2014-2015	Year 6: 2015-2016	Year 4-6 Totals
Student Meals & Ceremonies				
Funds Per Day - WePay Cards	$ 15	$ 15	$ 15	
WePay Cards - Intro & Conc. Institutes ($15.00 per day per student)	$ 12,111	$ 12,975	$ 12,975	
Campus Catering ($10.00 per day per student)	$ 8,074	$ 8,650	$ 8,650	
Pitt Funds Card	$ 1,000	$ 1,000	$ 1,000	
Opening & Closing Ceremonies	$ 4,000	$ 4,000	$ 4,000	
Subtotal Meals	$ 25,185	$ 26,625	$ 26,625	$ 78,435
Student Housing				
Single Rate Per Night	$ 52	$ 54	$ 56	
Double Rate Per Night	$ 29	$ 32	$ 34	
Nights Booked - Introductory Institute	$ 26	$ 26	$ 26	
Nights Booked - Concluding Institute	$ 14	$ 14	$ 14	
Number of Resident Assistants	$ 2	$ 2	$ 2	
Resident Assistants	$ 2,704	$ 2,808	$ 2,912	
Cohort 1	$ -	$ -	$ -	
Cohort 2	$ -	$ -	$ -	
Cohort 3	$ 6,171	$ -	$ -	
Cohort 4	$ 18,850	$ 8,960	$ -	
Cohort 5	$ -	$ 20,800	$ 9,520	
Cohort 6	$ -	$ -	$ 22,100	
Cohort 7	$ -	$ -	$ -	
Cohort 8	$ -	$ -	$ -	
Cohort 9	$ -	$ -	$ -	
Subtotal Housing	$ 27,725	$ 32,568	$ 34,532	$ 94,825
Travel, Transportation, & Entertainment				
Student Travel to/from Pittsburgh	$ 14,070	$ 16,875	$ 18,000	
Local Travel & Entertainment	$ 3,000	$ 3,000	$ 3,000	
Subtotal Travel	$ 17,070	$ 19,875	$ 21,000	$ 57,945
Speakers/Lecturers				
Guest Speaker Honorarium ($500.00 per speaker)	$ 1,500	$ 1,500	$ 1,500	
Guest Speaker Travel & Housing ($600.00 per speaker)	$ 1,800	$ 1,800	$ 1,800	
Guest Lecturers Honorarium ($250.00 per lecturer)	$ 3,000	$ 3,000	$ 3,000	
Guest Lecturers Travel & Housing ($600.00 per lecturer)	$ 7,200	$ 7,200	$ 7,200	
Doctoral/Post-Doc Teaching Fellows (On-campus conference housing)	$ 9,912	$ 10,024	$ 10,136	
Opening/Closing Speakers ($3,000.00 honor. + $1,000.00 travel per speaker)	$ 8,000	$ 8,000	$ 8,000	
William Pitt Union Tech Charges ($150.00 per event)	$ 450	$ 450	$ 450	
Subtotal Speakers/Lecturers	$ 31,862	$ 31,974	$ 32,086	$ 95,922
Supplies & Materials	$ 6,000	$ 6,500	$ 7,000	
Project Evaluation	$ 19,175	$ 14,175	$ 14,175	
Subtotal Institute	$ 167,387	$ 174,967	$ 178,668	$ 521,022
External Funding/Expenses				
External Funding/Sponsors	$ (1,500)	$ (2,000)	$ (2,500)	
Graduate School Application Fees to iSchools	$ 2,100	$ 2,520	$ 2,940	
Subtotal External Funding/Expenses	$ 600	$ 520	$ 440	$ 1,560
Totals	$ 269,505	$ 271,337	$ 277,359	$ 818,201

EXPENDITURES	Year 4: 2013-2014	Year 5: 2014-2015	Year 6: 2015-2016	Year 4-6 Totals
Summary Statistics for Program Enrollment & Expenditures	Year 4: 2013-2014	Year 5: 2014-2015	Year 6: 2015-2016	Year 4-6
Total # of i3 Scholars to Complete Introductory Institute	$ 25	$ 25	$ 25	$ 75
Total # of i3 Scholars to Complete Concluding Institute	$ 15	$ 20	$ 20	$ 55
i3 Scholars Active in Program*	$ 40	$ 45	$ 45	$ 130
Average Salary, Benefits & Admin Costs Per i3 Scholar Active in Program	$ 2,525	$ 2,130	$ 2,183	$ 2,270
Average Institute Cost Per i3 Scholar Active in Program	$ 4,164	$ 3,888	$ 3,970	$ 4,002
Average Total Cost Per i3 Scholar Active in Program	$ 6,704	$ 6,030	$ 6,164	$ 6,284
Salary & Benefits as % of Total Budget	29%	30%	30%	29%
Administrative Costs as % of Total Budget	9%	6%	6%	7%
Institute Costs as % of Total Budget	62%	64%	64%	64%
Average Total Cost Per Unique i3 Scholar to Complete Concluding Inst.**	$ 17,731	$ 13,567	$ 13,868	$ 14,822

Notes
*i3 Scholars that complete the Introductory and Concluding Institutes are counted twice in the 130 total because their involvement in the program spans two fiscal years. The 130 total does not refer to unique i3 Scholars enrolled in the program over the three year period.
**Allocates total expenditures per unique i3 Scholar that graduates from the program (i.e. completes all program phases)

University of Pittsburgh, School of Information Sciences
iSchool Inclusion Institute, Renewal of Funding, University Budget Categories
Year 4 (July 2013 - June 2014) - Year 6 (July 2015 - June 2016)

EXPENDITURES	Year 4: 2013-2014	Year 5: 2014-2015	Year 6: 2015-2016	Year 4-6 Totals
Salaries	$ 55,732	$ 57,404	$ 59,126	$ 171,640
Benefits	$ 21,986	$ 22,646	$ 23,325	$ 67,733
Supplies				
General Office Supplies	$ 1,000	$ 1,000	$ 1,000	
Supplies & Materials	$ 6,000	$ 6,500	$ 7,000	
Subtotal Supplies	$ 7,000	$ 7,500	$ 8,000	$ 22,500
Equipment Rental				
William Pitt Union Tech Charges	$ 450	$ 450	$ 450	$ 1,350
Travel				
iConference				
Travel Awards for i3 Scholars ($650.00 per student)	$ 7,800	$ 7,800	$ 7,800	
Director's Travel & Registration Fees	$ 2,000	$ 2,000	$ 2,000	
Recruitment & Networking at Conferences ($750.00 per fair)	$ 1,500	$ 1,500	$ 1,500	
Recruitment at Career Fairs ($625.00 per fair)	$ 2,500	$ 2,500	$ 2,500	
Campus Parking Pass for June	$ 100	$ 100	$ 100	
Student Meals & Ceremonies				
Campus Catering ($10.00 per day per student)	$ 8,074	$ 8,650	$ 8,650	
Pitt Funds Card	$ 1,000	$ 1,000	$ 1,000	
Opening & Closing Ceremonies	$ 4,000	$ 4,000	$ 4,000	
Student Housing	$ 27,725	$ 32,568	$ 34,532	
Travel, Transportation, & Entertainment				
Student Travel to/from Pittsburgh	$ 14,070	$ 16,875	$ 18,000	
Local Travel & Entertainment	$ 3,000	$ 3,000	$ 3,000	
Guest Speaker Travel & Housing ($600.00 per speaker)	$ 1,800	$ 1,800	$ 1,800	
Guest Lecturers Travel & Housing ($600.00 per lecturer)	$ 7,200	$ 7,200	$ 7,200	
Doctoral/Post-Doc Teaching Fellows	$ 5,912	$ 6,024	$ 6,136	
Subtotal Travel	$ 86,681	$ 95,017	$ 98,218	$ 279,916
Consulting				
Project Evaluation	$ 19,175	$ 14,175	$ 14,175	$ 47,525
Honoraria				
Guest Speaker Honorarium ($500.00 per speaker)	$ 1,500	$ 1,500	$ 1,500	
Guest Lecturers Honorarium ($250.00 per lecturer)	$ 3,000	$ 3,000	$ 3,000	
Doctoral/Post-Doc Teaching Fellows	$ 4,000	$ 4,000	$ 4,000	
Opening/Closing Speakers	$ 8,000	$ 8,000	$ 8,000	
Subtotal Honoraria	$ 16,500	$ 16,500	$ 16,500	$ 49,500
Telephone				
Telephone/Telecommunications	$ 600	$ 600	$ 600	$ 1,800
Mail & Postage				
Regular Mail	$ 300	$ 300	$ 300	$ 900
Printing & Publications				
New Marketing Materials	$ 8,000	$ -	$ -	$ 8,000
Study Participant Payments				
Student Stipends	$ 40,370	$ 43,250	$ 43,250	$ 126,870
Participant Living Allowance				
WePay Cards Dining - Intro & Conc. Institutes ($15.00 per day per student)	$ 12,111	$ 12,975	$ 12,975	$ 38,061
Other				
External Funding/Sponsors	$ (1,500)	$ (2,000)	$ (2,500)	
Graduate School Application Fees to iSchools	$ 2,100	$ 2,520	$ 2,940	
Subtotal Other	$ 600	$ 520	$ 440	$ 1,560
Totals	$ 269,505	$ 271,337	$ 277,359	$ 818,201
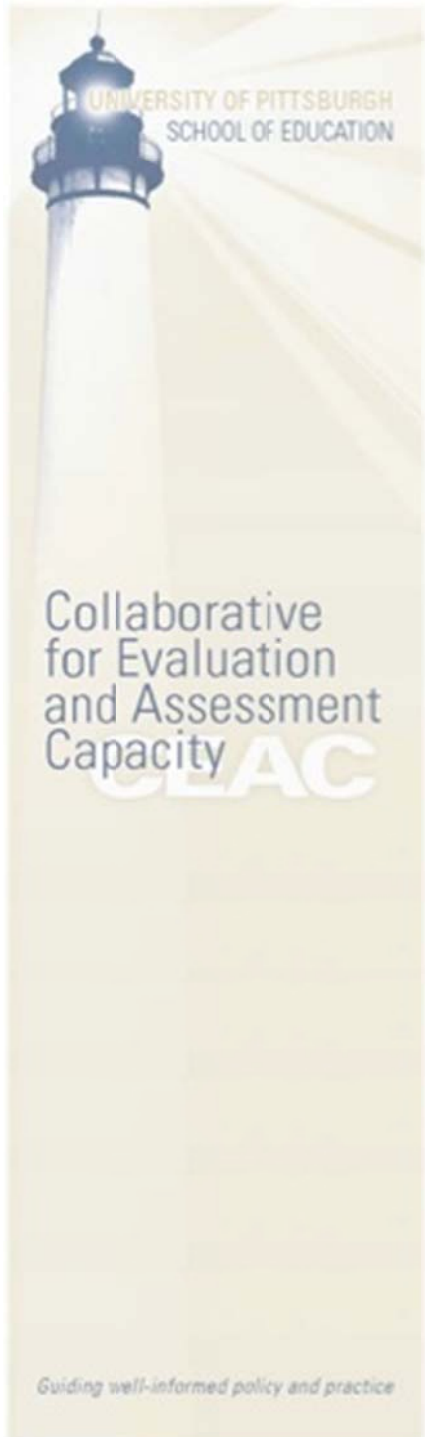
iSchool Inclusion Institute (i3)

The iSchool Inclusion Institute (i3) is founded on the premise that student diversity in the information science pipeline is directly influenced by the diversity of the faculty in the field. Students all benefit from role models. Underrepresented minority students can benefit from role models with whom they can personally relate, while simultaneously providing concrete evidence of diversity in the profession and field of study. Further, a lack of diversity among the faculty and students limits the perspectives and creativity that are needed to address complex issues confronting society in its use and management of information. The academy, government, industry, private information service providers, and society at large are arguably diminished with less than a full spectrum of diversity among the workforce.

With this concern in mind, a coalition of three Pennsylvania iSchools, the University of Pittsburgh, Drexel University, and Pennsylvania State University, developed a series of annual summer institutes for promising undergraduates from under-represented segments of the population who demonstrate the potential for success in graduate study in the field. The primary goal is to attract participants to graduate programs in iSchools throughout the United States. A secondary goal is to encourage the most promising students to continue their graduate studies to earn PhD degrees and, ultimately, join the faculty of an iSchool.

Each year, a cohort of twenty five students will be recruited to attend a Summer Institute to begin a year-long program of engagement with the iSchools. During the Institutes, participants will experience a varied but thematically unified array of hands-on modules to orient them to the opportunities and challenges available to them in the information professions. The annual Institutes will introduce the students to the fundamental skills they will need and foster familiarity with information-related subjects.

Evaluation Approach, Rationale, and Capacity

The plan for evaluation is created to assure that all phases of the work and important foci are considered fairly and impartially, and that the project decision-makers, via the most effective and efficient strategies, can make decision-making and mid-course adjustments.

Dr. Cynthia A. Tananis, Associate Professor, and Director of the *Collaborative for Evaluation and Assessment Capacity* (CEAC), will conduct the evaluation. Dr. Tananis is well positioned and qualified to conduct this evaluation. She has been an educator and evaluator for over 30 years, is familiar with

educational reform initiatives. CEAC currently serves as the evaluator of over 20 other educational initiatives, including large federally sponsored projects, such as the Math Science Partnership of Southwestern Pennsylvania, Pennsylvania's Keystones to Opportunity, and Carnegie Mellon's Alice project. More information about CEAC can be found at www.ceac.pitt.edu.

Evaluation, through the use of various measures, both formative and summative, can help program funders consider the efficacy of the program toward agreed upon outcomes and goals. Additionally, formative measures can assist program staff to judge the merit of time-sensitive decisions and strategies that are key to the progress and eventual success and sustainability of the funded project.

Rigorous use of data to support decision-making is a hallmark of a learning organization, and one committed to continuous growth for improvement. Evaluation, within the proper context, matches the goals and objectives of a project, and seeks to gather meaningful and relevant information about both the process and the product of the initiative. This information can then be utilized to fine-tune the program, report back to involved stakeholders, and assist in long term planning efforts. Good evaluation reflects the program accurately, *to examine and judge carefully*, and to inform decision makers as they continue to implement and refine the initiative.

The proposed evaluation activities delineated below will gather important information to inform and guide the project. Similarly, data collected longitudinally, will allow us to consider a growth and impact model.

The planned evaluation activity is designed to address the specific outcomes identified in the project:

Goals
- Increase the number of students from underrepresented groups entering iSchools for graduate study at the Master's level by at least 15 per year.
- Increase the number of students from underrepresented groups obtaining PhDs from iSchools by at least 4 per year.
- Increase the number of students from underrepresented groups in the information professions by increasing representation of such groups on the iSchool faculties.

Specific Evaluation Activities Proposed

The following activities are selected to gather focused information from primary participants and providers of services within this proposed initiative. Each activity has been selected because of the ability of the collected information to serve both formative and summative aspects of evaluation, to inform project development, refinement, and trajectory, and to determine whether primary goals of the project have been addressed through documented outcomes.

Retention/Tracking Across Student Cohort
Sixty students will participate in the Institutes over the three years (2013-14, 2014-15, and 2015-16). Another sixty students participated in the i3 program from 2010-2013. Given that students engage in an introductory and concluding Institute as well as a long term research project between institutes, it is important to track student participation across time to document any attrition and the overall implementation of the program's main intervention.

Summer Institute Student Pre, Post, and Follow-up Surveys
We propose to conduct a pre-post design survey of all students engaged in the Summer Institutes. The survey was developed in the spring of 2011, administered with the first i3 cohort during the Summer 2011 Institute and with the second cohort in 2012. A follow-up survey was developed in the spring 2012 and first administered to the Year 1 cohort during their Summer 2012 concluding institute. The instruments have and will continue to be collaboratively revised to best suit the i3 program.

The Pre-Post surveys were designed to elicit attitudes and feedback from student experience in Summer Institutes. The pre-post design will allow for a comparison of student attitudes, interests, and academic plans related to engagement in information sciences both before and after participation in the Summer Institute. The surveys will be administered online. Specific areas will include:
   a. Past course experience with mathematics, science, computer and information sciences (pre)
   b. Student perception of learning and their success during the Institute (post)
   c. Satisfaction with instruction and learning during the Institute (post)
   d. Future plans to enroll in success-trajectory courses such as mathematics, science and information sciences for continued undergraduate studies (pre and post)
   e. Plans to enroll in related graduate studies (pre and post)
   f. Interest in related careers (pre and post)

The follow-up survey administered at concluding institutes and via email to those not in attendance will garner information about experiences with the yearlong research project and the concluding Institute when applicable, as well as their subsequent thinking regarding enrollment in graduate study and interest in related careers.

Summer Institute Alumnae Survey
We propose to conduct an alumnae survey of Summer Institute participants. Alumnae will be surveyed after their projected graduation date. The survey will be designed to collect data on alumnae perception of and experience in information-related careers and graduate study. With program outcomes focusing on participants' entrance into the information sciences higher education faculty pipeline, collecting post-graduation data on participants is vital to program evaluation. The alumnae survey will be developed in the spring of 2014 and first administered in the summer of 2014. The survey will be administered online. Specific areas will include:
   a. Experience in information-related careers and graduate study
   b. Aspects of i3 program that were particularly useful to careers and graduate study
   c. Perception of i3 program's impact of career and graduate school experience
   d. Characteristic data

Cost Analysis
The proposal assumes some varied costs across project years because of the need to develop instrumentation in the first year that can be reviewed and revised in subsequent years without the need for more instrument development. The projected total annual costs are:

    Year 1 = $ 19,175
    Year 2 = $ 14,175
    Year 3 = $ 14,175
    Total Across Three-Year Evaluation = $ 47,525
    Average Annual Cost Across Years = $ 15,841

i3 Evaluation Cost Calculations

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Year 4			
Evaluation Activities	**% of Annual Cost**	**Amount**	**Description**
Retention/Tracking Across Cohorts	10.4	$2,000	Evaluation planning*, data collection, analysis, and reporting
i3 Summer Institute Pre-Post Survey	26.1	$5,000	Evaluation planning*, instrument revision, instrument construction, data analysis, and reporting
Concluding Institute Follow-up Survey	26.1	$5,000	Evaluation planning*, instrument revision, instrument construction, data analysis, and reporting
i3 Summer Institute Alumnae Survey	37.4	$7,175	Evaluation planning*, instrument development, instrument construction, data analysis, and reporting
Total	**100**	**$19,175**	

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Year 5			
Evaluation Activities	**% of Annual Cost**	**Amount**	**Description**
Retention/Tracking Across Cohorts	7.0	$1,000	Evaluation planning*, data collection, analysis, and reporting
i3 Summer Institute Pre-Post Survey	31.0	$4,391	Evaluation planning*, instrument revision, instrument construction, data analysis, and reporting
Concluding Institute Follow-up Survey	31.0	$4,392	Evaluation planning*, instrument revision, instrument construction, data analysis, and reporting
i3 Summer Institute Alumnae Survey	31.0	$4,392	Evaluation planning*, instrument development, instrument construction, data analysis, and reporting
Total	**100**	**$14,175**	

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Year 6			
Evaluation Activities	**% of Annual Cost**	**Amount**	**Description**
Retention/Tracking Across Cohorts	7.0	$1,000	Evaluation planning*, data collection, analysis, and reporting
i3 Summer Institute Pre-Post Survey	31.0	$4,391	Evaluation planning*, instrument revision, instrument construction, data analysis, and reporting
Concluding Institute Follow-up Survey	31.0	$4,392	Evaluation planning*, instrument revision, instrument construction, data analysis, and reporting
i3 Summer Institute Alumnae Survey	31.0	$4,392	Evaluation planning*, instrument development, instrument construction, data analysis, and reporting
Total	**100**	**$14,175**	

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