NANOGrav-PIRE

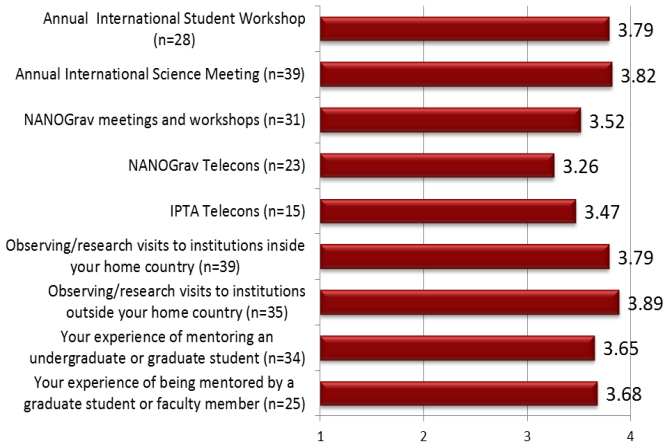
SmartStart Evaluation Newsletter

Volume 2 Quarter 4 July 2012

This newsletter presents findings from formative and summative evaluations conducted in Quarter 4, 2012. In addition to the overall ratings of the PIRE project components, progress on all five project goals is reported. Accomplishment of benchmarks are presented for the current year as well as in comparison to project year 1.

Project components

Participants rated all project components as *very useful*. Areas with the highest ratings are: Observing/research visits to institutions both inside and outside home countries and attending the Annual International Student Workshop and Science Meeting. NANOGrav telecons were rated the least useful due to significant discussions of project management.



PROJECT GOALS

Goal 1: **Knowledge**

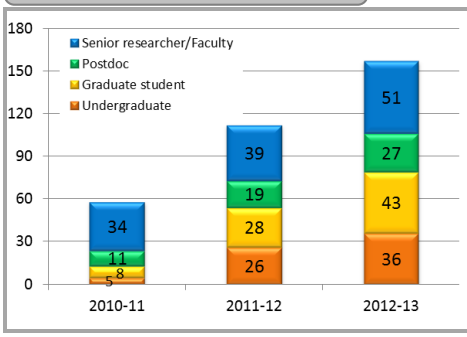
Goal 2: **Education**

Goal 3: **Partnerships**

Goal 4: **Institutional Capacity**

Goal 5: **Workforce Development**

Project participants



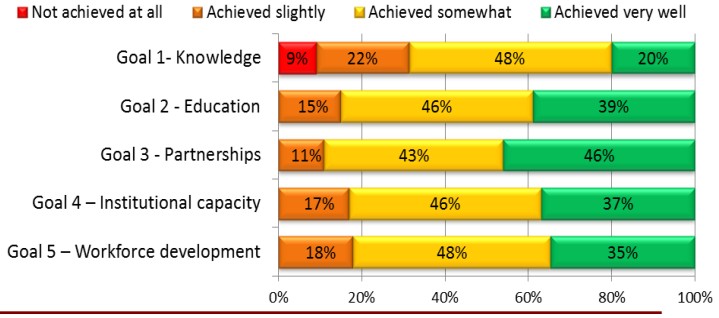
The overall number of participants has increased from 58 at the start of the first project year to 157 at the start of the third project year. The number of senior researchers and faculty has grown steadily. The number of postdocs, graduate and undergraduate students has grown dramatically.

Achievement of project goals

Fifty-four senior researchers, faculty, postdocs, graduate and undergraduate students completed the annual post-survey to assess progress the project is making toward achieving the five project goals.

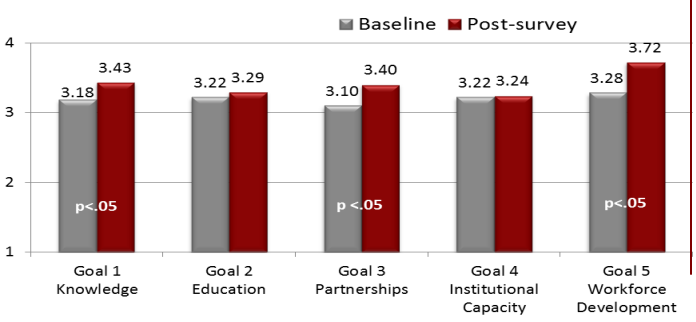
Participants' ratings of overall project goal achievement

Between 20% and 46% of participants rated the goals as having been *achieved very well.* It is interesting to note that achievement of the goal regarding increase in knowledge was rated the lowest. Development of collaborative partnerships was rated the highest.



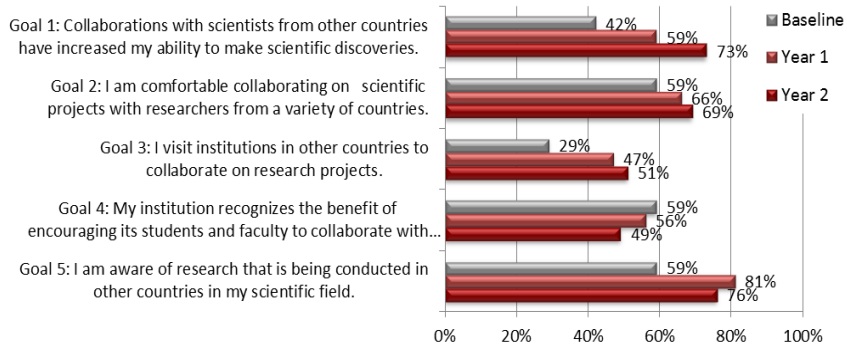
Participants' growth in goal areas

Component statements within each goal area formed a composite score for each goal. Significant gains were found for goals 1, 3 and 5. Goal 2 demonstrated increases in some component statements, indicating that progress is being made in this area. Goal 4 overall growth appears flat as some statements have minimal growth, while others decreased from baseline to post-survey.



Change in rating of goal statements over time

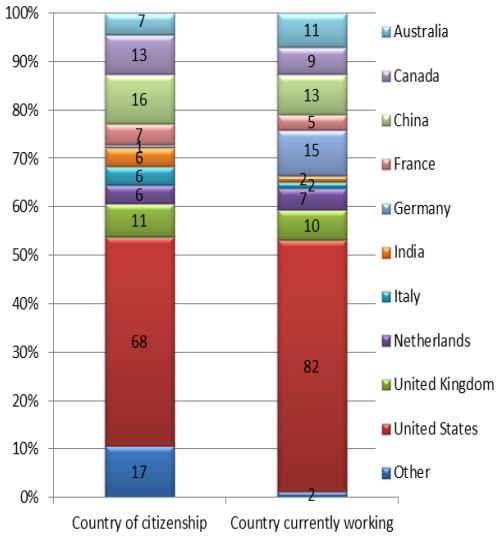
One representative statement from each goal is presented with the number of participants who *strongly agreed* by project year. It is notable that participants have a 31% increase in *strongly agree* ratings for their belief that collaborations with other scientists have increased their ability to make scientific discoveries. The lack of overall growth in Goal 4 (left) is due in part to a 10% decrease in



Goal Highlights

Goal 5 - Workforce Development 158 PIRE project participants come from 24 countries.

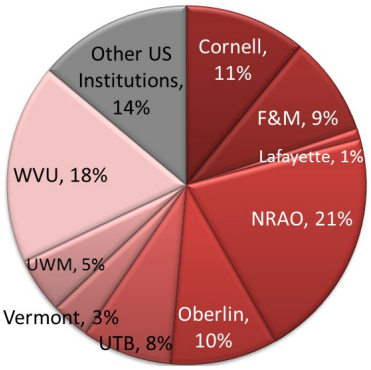
- The shift in numbers between citizenship and working location indicate that people are leaving their home countries most frequently to work in Australia, Germany and the U.S.A.
- Citizens are most often leaving Canada, India, and Italy.
- Out of the 82 participants currently working in the U.S, 12 different citizenships were represented: Bulgaria, Canada, China, Columbia, France, India, Korea, Nepal, Spain, Sri Lanka, United Kingdom and the United States.



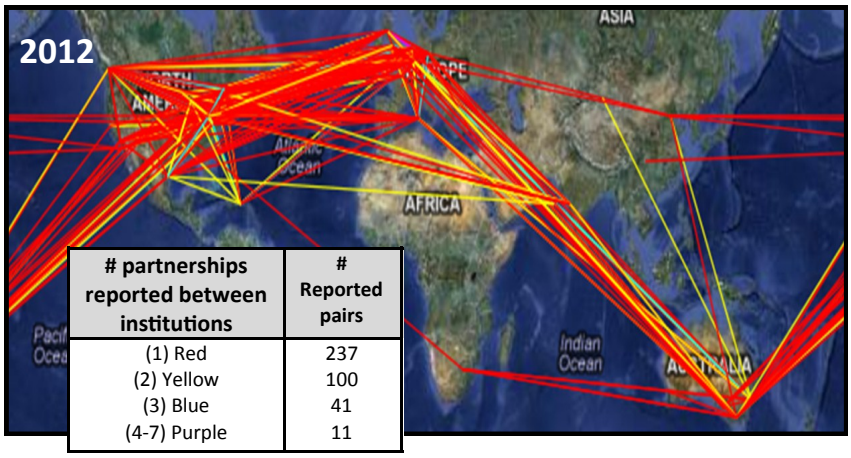
Goal 3 - Partnerships 102 participants responded to the partnership matrix survey.

- The 82 participants who were involved in the program in 2010 and 2011 reported 476 and 491 collaborative partnerships, respectively.
- By 2012, a total of 624 partnerships were reported by 102 participants.
- Partnerships between pairs of institutions and number (by color) are indicated on the world map.

Who has the largest piece of the partnership pie?



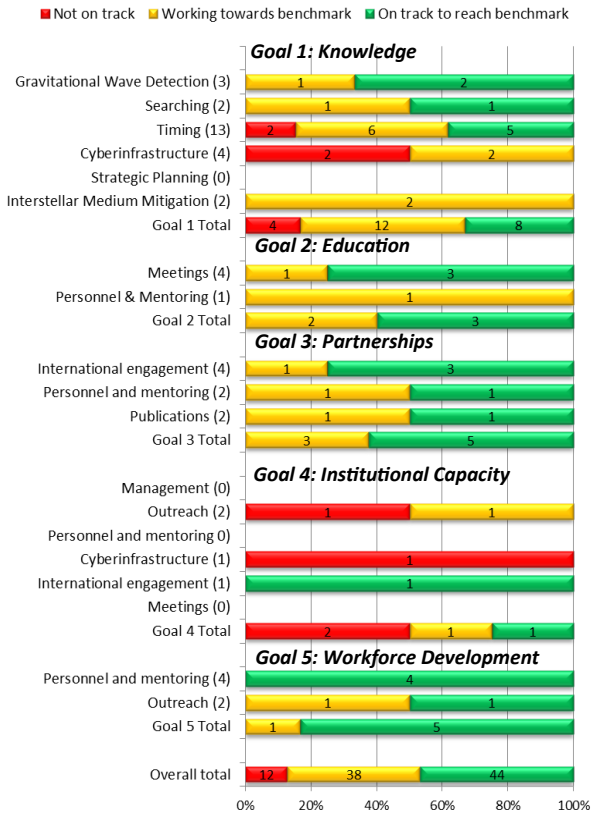
- The total number of reported partnerships were tallied for nine U.S. institutions.
- WVU and NRAO account for the largest proportions of partnerships.
- The two largest contributors to the *other* category were JPL and Goddard Space Flight Center.
- Oberlin showed the highest growth rate.

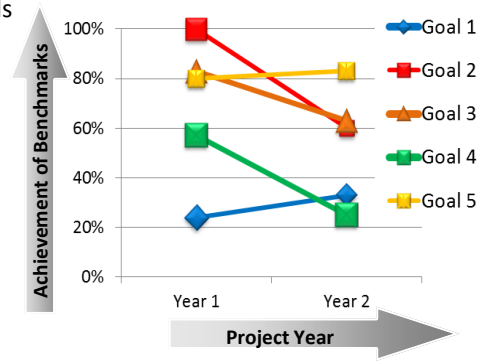


# partnerships reported between institutions	# Reported pairs
(1) Red	237
(2) Yellow	100
(3) Blue	41
(4-7) Purple	11

Benchmarks

Working group reports were analyzed to assess progress made towards achievement of annual benchmarks. Overall, 47% of objectives (44 of 93) are on track. Goal 5 performance remained strong, whereas the top two performing areas in Year 1 - goals 2 and 3 - decreased. Goal 4 also decreased considerably, however it has few total objectives. Goal 1 increased the most between Year 1 and 2, however with a third of objectives on track there is room for continued improvement.





Key Findings and Recommendations

- Actively recruit underrepresented minorities and females to participate in this PIRE project.
- Review the partnership pie. Are partner contributions consistent with compensation?
- Redirect efforts towards organization and development of the education/ outreach and institutional capacity components.
- Identify issues and improve development of cyberinfrastructure benchmarks.

Upcoming Evaluation Activities

- Analyze evaluations of International Student Workshop & Science Meeting
- Conduct baseline survey of new undergraduates, graduates, post-docs & faculty
- Conduct post-survey of Research Abroad Experience students
- Conduct telephone interviews with Research Abroad Experience Mentors

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