

# 2010 HRD COV REPORT – STAFF RESPONSES: LSAMP

Louis Stokes Alliances for Minority Participation – Staff responses to 2010 Committee of Visitors (COV) Recommendations

## PART A. INTEGRITY AND EFFICIENCY OF THE PROGRAM’S PROCESSES AND MANAGEMENT

A.1 Questions about the quality and effectiveness of the program’s use of merit review process.

1. Are the review methods (for example, panel, ad hoc, site visits) appropriate?

**COV Comments:** The merit review procedures appeared to be appropriate. Some proposals required site visits. Selection criteria for those who received site visits were unclear but the site visit report seemed critical to the decision-making process.

**Staff Response:**

During the reporting period, three pre-award site visits were conducted at the recommendation of the panel. The recommendation is normally included in the panel summary. Pre-award site visits can also be made at the discretion of program staff without panel recommendation, when warranted, to ensure wise investment of program funds.

5. Does the documentation in the jacket provide the rationale for the award/decline decision?

**COV Comments:** In general, documentation in the jackets was thorough. However, there were anomalies associated in the cases of site visits and unsolicited proposals in which the rationale for award or declination was not explicit.

**Staff Response:**

The awards cited by the COV members reviewing the LSAMP program included an unsolicited proposal and two supplemental funding actions to support summer research experiences at the Nation’s laboratories. No examples were referenced by the panel that included site visit reports or declinations.

The rationale for award of the unsolicited proposal was based on the intellectual merit and broader impact criteria cited in the reviews and review analysis located in the award jacket. Unsolicited proposals require no additional review criteria other than the two NSF criteria (intellectual merit and broader impact).

Although NSF guidance (NSF Grant Proposal Guide) indicates that Program Officers may make decisions regarding whether or not to recommend a small supplement without merit review of the supplemental request, the activity-specific guidelines for the Department of Energy (DoE) supplements indicate that the decisions are based on the evaluation of submittals through use of the standard NSB Merit Review Criteria. Outcomes are reflected in review analyses for the NSF-DoE supplemental funding actions, which consist of a formatted review analysis document (approved by the NSF Division of Grants and Agreements (DGA)). The solicitation mechanism, Dear Colleague Letter, NSF 07-133, describes the DoE programs and is referenced on the form.

Thus, for the items referenced by the COV panel, LSAMP Program staff were unable to identify anomalies in the proposal recommendation process.

7. Is the time to decision appropriate?

**COV Comments:** The time to decision was generally appropriate and within the NSF target. In the 2008 competition, however, there were instances where the timeline from proposal submission to notification exceeded the NSF target.

**Staff Response:**

(**Note:** The COV panel response indicated the timeline for evaluating dwell time as “from proposal submission to notification”. Dwell time is calculated from proposal submission to DD concurrence. Award notification by the Division of Grants and Agreements does not enter into the calculation of dwell time.)

Generally, the program has met the standard of 70% of its new proposals being processed within the six-month dwell time. The LSAMP staff do acknowledge that in fiscal 2008 some proposals did not meet the dwell time due to the time taken to acquire additional information for decision-making. For example, in 2008, following a pre-award site visit to a state university, submission of the pre-award site visit report and follow-up responses by the institution resulted in the proposal’s recommendation for award going beyond the six-month dwell time. The reason for not meeting the dwell time is included in the review analysis.

A.2 Questions concerning the selection of reviewers. Provide comments in the space below the question. Discuss areas of concern in the space provided.

1. Did the program use reviewers balanced with respect to characteristics such as geography, type of institution, and underrepresented groups?

**Comments:** Although documentation indicated that reviewers were from a variety of states, it appeared that there were some “favorite” states (such as Oklahoma and Texas). Gender balance appeared to be appropriate in most panels. It was difficult to ascertain whether there was sufficient representation of other underrepresented groups.

**Staff Response:**

Reviewers from EPSCoR (Experimental Program To Stimulate Competitive Research) states increased during this review period to include states such as Idaho, Montana, and Rhode Island in addition to Oklahoma as the panel cited. When possible, the program attempts to include reviewers from areas where the program is non-existent, such as the Plains states, to educate these reviewers about the program.

With expertise being the most important criteria for selection, panels are designed with both veteran and new reviewers for each competition. Thus, there may be the appearance of “favorite” states because of this strategy. Experts from twenty-seven states and the District of Columbia participated on the LSAMP panels or served as ad hoc reviewers. Eleven EPSCoR states are among the geographical representation (Alabama, Hawaii, Idaho, Louisiana, Montana, Oklahoma, Puerto Rico, Rhode Island, New Hampshire, New Mexico, and South Dakota).

The panel indicated that the available data presented difficulty in ascertaining whether there was sufficient representation of other underrepresented groups. The program (and division) makes an extraordinary effort to involve reviewers from underrepresented racial and ethnic groups, and although the documentation provided to the COV did not clearly demonstrate our success in achieving balance in this area, we do have such demographic data and we will be happy to include the tabulation in the background materials to be reviewed by the next COV for the program.

A.3 Questions concerning the resulting portfolio of awards under review. Provide comments in the space below the question. Discuss areas of concern in the space provided.

1. Overall quality of the research and/or education projects supported by the program.

**COV Comments:** There was evidence of significant partnerships and collaborations. In general, the alliances appeared to be quite strong based on “Results from Prior NSF Support” that were included in the proposal. In some cases, however, only one annual report had been filed (by the PI) for this three-year funding cycle.

**Staff Response:**

The panel indicated that there were some cases in the review of sample awards where one annual report had been filed (by the PI) for this three-year funding cycle. An example would have been helpful; however, staff believes that this comment arose from the review of new awards – those made in fiscal 2009 – for which only one annual report would have been submitted to date.

2. Are awards appropriate in size and duration for the scope of the projects?

**COV Comments:** The size and duration of most of the awards appeared to be appropriate. One proposal was deemed to be innovative and excellent, although the budget was cut requiring the elimination of some of the innovative strategies.

**Staff Response:**

The proposal solicitations for the Louis Stokes Alliances for Minority Participation include funding guidelines for each stage of alliance development. The guidelines are based on current and/or projected B. S. degree production for populations underrepresented in STEM fields over the duration of the project. Availability of funding, which includes consideration of mortgages, may result in reduced budgets. In instances where reduced budgets are necessary, the alliance is tasked with prioritizing its recruitment and retention activities in the required revised scope and budget. Program staff supports innovative, risk-taking strategies in conjunction with proven recruitment, and retention strategies when cost-cutting measures are undertaken.

4. Does the program portfolio have an appropriate balance of innovative/potentially transformative projects?

**COV Comments:** Given the nature of the submissions, there were few instances of innovative and potentially transformative projects. Only one of the 51 proposals reviewed was lauded as being innovative in the Program Officers’ review.

Overall, proposals emphasized the implementation of best practices rather than innovation.

**Staff Response:**

As noted by the panel, most project activities funded during the review period normally consisted of existing successful practices as evidenced by the Urban Institute evaluation as proven successful strategies in STEM education for the targeted groups. LSAMP staff has revised the review criteria to include special programmatic review criteria to encourage submission of innovative, transformative plans to attract and retain students in STEM, especially from underrepresented minority populations. The value-added criterion was also added for all funding opportunities in the program.

7. Does the program portfolio have an appropriate balance of awards to new investigators?

**COV Comments:** The proposal solicitation severely restricts opportunities for new investigators since senior administrators are required to serve as PI.

With respect to the funding of new sites, the ongoing commitment to current sites may preclude the selection of new sites and hence new investigators.

Example: Of 12 jackets examined by one panelist, only one was indeed new; eight were at the senior level; two were mid-level; one, the unsolicited proposal, was unclassified.

If participation is to be substantially broadened, efforts must be enhanced to increase the pool of truly new sites.

**Staff Response:**

As noted by the COV panel, there are strengths and weaknesses to the alliance model. One of the weaknesses is the limitation of new principal investigator involvement as PIs in the program as recognized by NSF. However, within the alliance leadership and management structure, there are program directors and managers, institutional coordinators, and mentors from the STEM faculty ranks intricately involved in the programming and training of students through the LSAMP projects. Many have active extramural research and education funding.

In addition, the building of an alliance is primarily a grassroots effort with consultation from NSF staff. Thus, submissions of proposals for new alliances are limited. Because the goal of the program is to “significantly increase B. S. degrees from underrepresented populations in STEM disciplines,” single investigator proposals are discouraged.

During the review period, FY2007-FY2009, the program has added six new alliances to its portfolio:

- Upstate (Lead Institution – Syracuse University)
- North Star (Lead Institution – University of Minnesota)
- Virginia-North Carolina (Lead Institution – University of Virginia)
- ARK-LSAMP (Lead Institution – University of Arkansas-Pine Bluff)
- Pacific-Northwest (Lead Institution – University of Washington)
- Garden State (Lead Institution – Rutgers University, New Brunswick)

The addition of these new alliances, some which are multi-state, add three new female PI/PDs to the program.

To increase the number of new and female investigators, the education research track was revised in 2008 to allow individual alliance institutions to submit proposals. To increase proposal submissions however the program seeks to better publicize the opportunity and increase the duration and dollar amount for projects. Partnering with other educational research/evaluation programs in the division and directorate is under consideration.

Since FY2006, requests for proposals to the LSAMP program were subsumed under the Alliances for Broadening Participation in STEM (ABP) solicitation. Beginning in FY2011, the program will retain its name in solicitations alleviating public confusion. Hopefully, the name recognition will increase proposal submissions for new alliances in regions currently without NSF LSAMP projects.

8. Does the program portfolio have an appropriate balance of geographical distribution of Principal Investigators?

**COV Comments:** While efforts were made to maintain a balance of PIs in all geographical areas, alliances are largely located in the East, near Midwest, and Southern states. There is no representation in the far Western states, such as Wyoming, Utah, Nevada, Idaho, Oregon, the Plains states, and the upper Northeast. Since the FY07 COV, progress has been made in California but it is not comprehensive (only 47 institutions are represented).

**Staff Response:**

The COV panel comments indicate that they perceive the far Western states such as Wyoming, Utah, Nevada, Idaho, Oregon; the Plains states; and the Upper Northeast are areas prime for LSAMP sites. While currently there are no LSAMP Alliance lead institutions in Utah, Nevada, Idaho, or Oregon, there are institutions in these states participating in LSAMP programs through the Western Alliance To Expand Science and Engineering Opportunities (WAESO) and the Pacific Northwest alliances. The lead institutions for these alliances are Arizona State University and the University of Washington, respectively.

Many of the upper Northeast states are included in existing alliances. Currently, the Northeast LSAMP consists of projects in Massachusetts, Connecticut, and Rhode Island. There is also the Urban Massachusetts LSAMP that is an active project in this area.

Maine, Vermont, and New Hampshire, all EPSCoR jurisdictions, are currently without LSAMP projects in this region of the U. S. Thus, an opportunity exists to collaborate with the NSF EPSCoR program in stimulating interest in these states if the population exists for worthwhile and sustainable results.

Consortia of community colleges have also expressed interest in forming a new alliance. Thus, the possibility of forming different types of alliances to address other critical education junctures in STEM education may provide opportunities to increase PI representation in the program.

9. Does the program portfolio have an appropriate balance of institutional types?

**COV Comments:** Several alliances demonstrate a varied mix of majority- and minority-serving institutions spanning community colleges, primarily undergraduate and research-intensive institutions (Colorado, Florida-Georgia, with New Mexico, and WASEO alliances being viewed as outstanding examples of forming alliances that span the post K-12 continuum). However, various other alliances emphasize majority institutions (for example, Northeast and Upstate). More attention should be directed toward Minority-serving institutions. These institutions (HBCUs, HSIs, and TCUs) represent only 154/555 (28%) of alliance institutions.

**Staff Response:**

Alliance development is a grassroots effort. It should also be noted that some HBCUs, HSIs, and TCUs have projects on campus and/or funding for LSAMP-like programs. Additionally, many of these institutions have resource constraints, e.g., faculty workloads that are taken into consideration in deciding to participate in an alliance.

To address lead institution status of HBCUs, MSIs, and TCUs, the eligibility criteria is very important. To achieve the project's goals, institutions should have sufficient numbers of STEM degree-granting majors to participate in an alliance. Two-year institutions may participate in an alliance but cannot be the lead institution. Minority-serving institutions that meet the above criteria and can demonstrate institutional commitment to the project are highly encouraged to participate in the program as lead or partner institutions.

**(Note:** The current partnership directory is being updated but shows that 175 MSI institutions

participate in the program.)

A.4 Management of the program under review. Please comment on:

2. Responsiveness of the program to emerging research and education opportunities.

**COV Comments:** The emphasis on emerging research and education opportunities is not as apparent as is broadening participation to include underrepresented groups in STEM disciplines.

The COV recommends more intra-agency partnerships and collaboration (i.e. REU, STEP, and OISE) to provide additional opportunities for students.

**Staff Response:**

The panel commented that the LSAMP portfolio under review demonstrates broadening participation efforts more than emphasis on emerging research and education opportunities.

While broadening participation is the focus and mission of the Division of Human Resource Development programs, involving students in cutting-edge research and improving academics to persist to the STEM degree at the undergraduate and post-baccalaureate levels are top priorities for the NSF LSAMP program and each funded project. To develop highly competitive students in the 21<sup>st</sup> century, faculty and administrators must be able to offer high-quality research experiences and opportunities for students from diverse, underserved backgrounds. Therefore, all alliance proposals to the LSAMP program are reviewed to confirm that student research opportunities, through linkages and leveraging of other research programs and projects, are employed throughout the award period.

To further support this requirement, the Division collaborates with the Department of Energy to provide opportunities to participate in cutting-edge research at the Nation's laboratories. The opportunity supported with supplemental funding from NSF is primarily for undergraduate students for which the LSAMP program is a major contributor. In addition, the LSAMP program provides the following REU-type opportunities:

- Biological and Ecological Undergraduate Research Experiences for Native Americans and Pacific Islanders in collaboration with the Organization for Tropical Studies at Duke University
- International Research Experiences for Undergraduates through LSAMP support to the University of Florida

With alliance and other support, student academic year research experiences are on the increase as part of many of the retention strategies for underrepresented minorities pursuing STEM degrees. Annual reports provide the evidence of participation in cutting-edge research; linkages to many of the research centers for LSAMP students; and activities to improve scientific capabilities, such as participation in poster sessions and annual research conferences. Additionally, to be competitive for funding, alliances are required to demonstrate through letters of collaboration, the types of linkages with private, public, or non-profit research organizations for LSAMP participants.

The provided sample of NSF-DoE supplemental funding activities served to demonstrate LSAMP community participation in cutting-edge research. Over half of the 41 alliances currently participating in this research opportunity. Our goal is to get 100% of the alliances participating in this activity.

In fiscal year 2010, the LSAMP program partnered with the NSF Directorate for Engineering to provide a community college workshop for LSAMP participants. A great opportunity also exists for the LSAMP program to collaborate with the Directorate for Biological Sciences and the Office of International Science and Engineering (OISE) in supporting REU and iREU sites and vice versa.

3. Program planning and prioritization process (internal and external) that guided the development of the portfolio.

**COV Comments:** From the documents provided to the COV panel, it was not apparent how formative and efficiency assessments guided the development of the portfolio.

**Staff Response:**

Since the inception of the program and until 2007, the program's portfolio has used a "phased" approach to project implementation based on performance. In 2007, alliances were categorized according to the number of years of support and progress toward sustainability and institutionalization of successful practices in the recruitment and retention of STEM students. The portfolio has changed from projects categorized from Phase I-IV to being categorized as "New," "Mid-Level," or "Senior" in accomplishing the goals of the program. Alliances at the senior level only are eligible for competitive funding through the Bridge to the Doctorate (BD) activity.

During fiscal 2011, the program will engage in strategic planning activities to shape the program over the next five years. A formal plan for these activities will be provided to the AD/EHR on or before April 2011.

4. Responsiveness of program to previous COV comments and recommendations.

**COV Comments:** We found documented evidence that previous COV comments and recommendations have been used for programmatic planning and prioritization. However, it was not apparent that this is reviewed and discussed on an annual basis.

**Staff Response:**

The COV process requires annual program updates to the recommendations made by the COV panel to the AD/EHR. With the exception of staffing which is a directorate management issue, many of the recommendations made by the 2007 COV were already being implemented, e.g., incorporation of community colleges, where appropriate. The feasibility of incorporating funding opportunities for planning activities for declined proposals and/or possible new alliances posed constraints on an already very tight budget. Thus, this recommendation has not been implemented.

No formal staff document is prepared on this topic other than submission of the annual and final updates to previous COV reports. This information was included among the review documents.

5. Additional comments on program management:

**COV Comments:** The COV noted a need for additional NSF personnel to support the LSAMP and BD programs if NSF is to expand the program to areas of significant underserved and underrepresented populations.

The COV recommends developing a comprehensive website to inform the STEM community of the LSAMP program and its efforts (i.e., IGERT, CPATH, and MSP).

**Staff Response:**

Program staff agrees with the comments of the COV panel in the area of staffing for the program.

The website is in development with the lead from the NSF Division of Administrative Services. Anticipated completion date is during FY2011.

**PART B. RESULTS OF NSF INVESTMENTS**

**No comments needing staff response.**

**PART C. OTHER TOPICS**

1. Please comment on any program areas in need of improvement or gaps (if any) within program areas.

**COV Comments:**

Across the Portfolio

- (a) Intra-agency communication and collaboration between LSAMP and other NSF programs (e.g., REU, STEP, OISE) should be more explicitly emphasized and encouraged.
- (b) Improved communication and coordination between AGEP and LSAMP-BD is necessary to leverage resources and achieve common goals in increasing the number of underrepresented minority (URM) students who obtain graduate degrees in STEM.

**Staff Response:**

- (a) Involving students in cutting edge research and improving academics to persist to the STEM degree at the undergraduate and post-baccalaureate levels are top priorities for the NSF LSAMP program and each funded project. High-quality research experiences and opportunities for students from diverse, underserved backgrounds are considered critical; therefore, all alliance proposals to the LSAMP program are reviewed to confirm that student research opportunities, through linkages and leveraging of other research programs and projects, are employed throughout the award period.

To further support this requirement, the Division collaborates with the Department of Energy to provide opportunities to participate in cutting edge research at the Nation’s laboratories. The opportunity supported with supplemental funding from NSF is primarily for undergraduate students for which the LSAMP program is a major contributor.

- (b) For alliances with both AGEP and LSAMP-BD projects, linkages must be demonstrated for a competitively funded LSAMP-BD proposal. Annual reports and project highlights provide evidence of collaboration between the two projects through joint research conferences, e.g., North Carolina OPT-ED conference, mentoring activities for undergraduates and post-baccalaureate STEM students and leveraging.

2. Please provide comments as appropriate on the program’s performance in meeting program-specific goals and objectives that are not covered by the above questions.

**COV Comments:**

Across the Portfolio

- (a) How robust are the Directorate’s databases that track demographics and other data on the programs’ target populations? Is the Directorate’s use of money and performance evaluated with respect to those numbers?

Program-Specific

- (b) The evaluation completed by the Urban Institute showed LSAMP to be highly effective. LSAMP is at the forefront of using data to demonstrate impact, including the use of quasi-experimental design. More frequent formative feedback would be an asset to the LSAMP program.
- (c) It would be helpful if Program Officers (POs) could provide prospective principle investigators (PIs), co-PIs, and project evaluators with resources (i.e., instruments, metrics, and indicators) as well as additional information on assessment plans, designs, and results via a comprehensive website.

**Staff Response:**

Across the Portfolio

The Division of Science Resources Statistics (SRS) is the federal statistical agency within the NSF that manages the Scientist and Engineers Statistical Data Systems (SESTAT). National data on Science and Engineering education (beginning from the bachelor degree level) and employment, work activities, and demographic characteristics are collected in SESTAT. SRS produces the "Science and Engineering Indicators Report" and the "Women, Minorities, and Persons With Disabilities in Science and Engineering Report" from which data on underrepresented minority and groups in the STEM population targeted by the Division of Human Resource Development (HRD) can be extracted.

Program-Specific

The evaluation completed by the Urban Institute assessed LSAMP as being highly effective. LSAMP is at the forefront of using data to demonstrate impact, including the use of quasi-experimental design. More frequent formative feedback would be an asset to the LSAMP program.

The COV recommendation for more formative feedback to program staff is well-taken. In the interim of full-scale program evaluations of the LSAMP activities following the 2006 Urban Institute effort, each alliance project is required to undertake external evaluations. These external evaluations are performed by highly competent personnel. Through their recommendations, Program Officers are able to gather formative assessment at the project-level (gaps and needs) to adjust program and data-gathering requirements. As strategic program planning takes place in 2011, this recommendation will be factored into the process.

The LSAMP team has been working with the Division of Administrative Services (DAS) on the development of a website for the program to better support LSAMP grantees. Progress has been slow due to DAS priorities and maintaining LSAMP core programmatic responsibilities with limited staff. We expect that website development will be completed during this fiscal year.

3. Please identify agency-wide issues that should be addressed by NSF to help improve the program's performance.

**COV Comments:**

Program-Specific

Enhance collaboration within NSF to coordinate and facilitate BP efforts and leverage individual programmatic resources. For example, channeling student participation in REU programs and providing a means for REU PIs to communicate opportunities to LSAMP scholars and the Broadening Participation in Computing (BPC) program, which also uses an alliance approach.

**Staff Response:**

LSAMP embraces broadening participation as a key focus of the NSF Division of Human Resource Development programs. To develop high competitive students in the 21<sup>st</sup> century, grantees must be able to offer opportunities for high quality research experiences to all students including those from diverse, underserved backgrounds. LSAMP engages in partnerships with other NSF directorates, divisions, and programs to support grantees in that effort. EHR collaborates with the Department of Energy to provide students with the opportunity to participate in cutting-edge research at the Nation's laboratories – a partnership actively supported by LSAMP. Supplemental funding allows undergraduate students to have summer research internships at DoE laboratories.

In addition, LSAMP provides support for student REU participation in REU-type opportunities through partnerships with academic institutions. The Organization for Tropical Studies at Duke University (Native Americans and Pacific Islanders) offers student posts in biological and ecological research, and the University of Florida provides opportunities for International Research Experiences for Undergraduates.

However, the LSAMP program staff agrees with the comments of the COV and will continue working to build partnerships that support increased REU opportunities for URM students in STEM.

4. Please provide comments on any other issues the COV feels are relevant.

**COV Comments:**

Across the Portfolio

- (a) Mandate BP within the Broader Impacts criterion and develop associated implications for non-compliance.
- (b) Identify ways NSF can partner with government and private entities to pool resources to broaden participation.

Program-Specific

- (c) Historically, data have shown that in order to broaden participation in STEM it is essential to target financial support at MSIs. The Comprehensive Broadening Participation of Undergraduates in STEM (CBP-US) proposal to change the funding structure of BP initiatives at NSF is short-sighted, misinformed, and likely to have a negative impact on BP (according to federal guidelines that define underrepresentation in STEM).
- (d) Currently funded LSAMP sites identify and implement a set of common best practices. An unintended consequence of this is that it limits innovative thinking and/or risk-taking. One suggestion is to create a separate proposal track or supplement opportunity that specifically funds innovative approaches.
- (e) There are a limited number of alliance partners that are not institutions of higher education. PIs should be strongly encouraged to partner with private entities and leverage other external resources to provide viable career options to their growing pool of URM STEM graduates.
- (f) Identify ways to truly integrate research and education as part of the curriculum early in the undergraduate experience.

**Staff Response:**

Across the Portfolio

(a) and (b) A broadening participation working group is being assembled by EHR (Fall 2010) that will include individuals from HRD, EHR, MPS, and SBE. HRD program directors will serve on this working group and this will provide an opportunity to encourage other NSF programs to collaborate with HRD programs. The working group should stimulate more participation across NSF directorates in fulfilling the broadening participation commitment of the Foundation.

One example of interagency collaboration is in the implementation of an MOU with the Department of Energy. The Division collaborates with DoE to provide opportunities to participate in cutting-edge research at the Nation's laboratories to promote the development of human resources in science, technology, engineering, and mathematics (STEM). The opportunity supported with supplemental funding from NSF is primarily for undergraduate students for which the LSAMP program is a major contributor. The partnership also poses an excellent model for other such collaborations.

Program-Specific

- (c) The LSAMP, HBCU-UP, and TCUP programs will remain as separate programs and with separate budgets in FY 2011.
- (d) We agree with the COV members that proposals to the program generally address established successful practices versus innovative risk-taking in STEM education although the solicitation addresses

innovativeness in its program-specific merit review criteria. We find in the annual reporting that some of the alliances are experimenting with innovative strategies in retention practices mainly through institutional support and partnerships with projects funded by agencies such as the Department of Education. We cite the New Mexico State University LSAMP and the Arkansas LSAMP as examples of alliances undertaking practices in transforming STEM educational approaches.

Proposing new program tracks must be balanced with available funding, increasing the number of alliances in the Nation (as is recommended by the COV), and providing adequate support to existing alliances to enable success at each stage of implementation.

Staff will take the recommendation under advisement.

(e) Evidence of partnerships with organizations other than higher education institutions is reported in annual reports for each funded project under the section “Collaborators”. The award instrument mandates that each project establishes partnerships among public, private, and other institutions. Governing and advisory bodies are responsible for aiding alliance management’s efforts in obtaining and increasing such partnerships.

(f) LSAMP projects incorporate components of both academic year and summer research for undergraduates. Many of the summer bridge programs focus on strengthening academics in math and science prior to first year college attendance. During the first year of college matriculation, LSAMP participants engage in seminars focused on preparing them for research activities. Student research conferences offer the opportunity for early awareness of research activities and culture.

Therefore, alliance leadership and management understand the importance of early integration of research and education to increasing retention and graduation in STEM disciplines.

5. NSF would appreciate your comments on how to improve the COV review process, format and report template.

**COV Comments:**

Program-Specific

It would have been helpful to provide the introductory LSAMP presentation given to the LSAMP COV sub-panel on Wednesday morning earlier in the COV process, such as in an LSAMP specific webinar. The information provided onsite would have been useful before eJacket reviews.

**Staff Response:**

The subpanel for the LSAMP program received information on the LSAMP program through the preparation webinar and was encouraged to contact program staff if another webinar or additional information was needed. In addition, panelists were instructed to review the program PowerPoint first to gain additional information on the program.

The COV coordinator remained in contact with the subpanel chairs prior to the onsite review to answer questions/concerns or to facilitate needed activities or to facilitate increased understanding of the program that materials may not have provided. No requests were received during the pre onsite period.