

## ASCR Response to the Report of the ASCR Committee of Visitors Review of the Applied Mathematics Research Program

Date of COV: July 22-23, 2013

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COV Recommendation	Program Response
<b>Efficacy and quality of the processes used to solicit, review, recommend, and document proposal actions</b>	
<p>A significant number of new investigators have been funded by the program in recent years. The COV recommends that the program managers continue to look for ways to enhance the program's ability to attract new investigators, while seeking to maintain the overall excellence of the program.</p>	<p>ASCR will continue to look for ways to attract new investigators. Currently, ASCR attracts new investigators through participation at DOE workshops and professional conferences such as Society for Applied and Industrial Mathematics (SIAM). Outreach to other professional societies such as American Statistical Association (ASA) has recently been initiated. Another mechanism to enhance awareness for researchers unfamiliar with ASCR is through participation on ASCR review panels and electronic reviews. Enhancing ASCR webpages can also help better inform new investigators regarding the DOE Applied Mathematics program.</p>
<p>The COV recommends that program managers be allowed to travel as needed to scientific meetings. Communicating with the research community is essential to maintaining the program's vitality and is especially important to attracting new investigators to the program.</p>	<p>ASCR agrees that program managers should travel to scientific meetings. Given that travel funds are limited, program managers provide a prioritized list of the conferences and technical meetings they would like to attend. ASCR senior management then manages the travel funds.</p>

<p>Regarding the CSGF program, the COV concurs with the 2011 report in recommending that the focus of the program be expanded and funding doubled over the next five years. The COV also recommends that the program remain within ASCR and not be moved to the National Science Foundation.</p>	<p>ASCR thanks the Committee for this comment.</p>
<p>The COV recommends that award rates for Applied Mathematics Program solicitations be made publicly available. This information would be useful to prospective proposal submitters.</p>	<p>ASCR will update the Applied Mathematics web pages and provide this information for solicitations in 2013 and thereafter.</p>
<p><b>Efficacy and quality of the processes used to monitor active projects and programs</b></p>	
<p>The COV recommends adding an annual center directors meeting in order to enhance linkages among the three Mathematical Multifaceted Integrated Capability Centers (MMICCs). The meetings could serve to highlight technical achievements and open problems could be shared to enable opportunistic collaborations. Additionally, it could serve as a forum to share lessons learned about effective center management.</p>	<p>ASCR agrees with this recommendation and will add an annual center directors' meeting.</p>
<p>The COV recommends instituting the use of a standard reporting format for the annual progress reports, including length and description of information to be provided.</p>	<p>ASCR agrees that a standard reporting format is useful. ASCR understands that a federal-wide standard format is being developed and will implement that format as quickly as possible.</p>

<b>Within the boundaries defined by the DOE mission and available funding, comment on how the award process has affected the breadth and depth of portfolio elements</b>	
<p>The COV recommends that ASCR develop a short-term visitors program with the MMICCs, with concomitant funding, to enable promising researchers to develop collaborations with center members. Even with a relatively modest investment, such a program holds the potential for greatly increasing the scale and scope of new capabilities developed at an MMICC by leveraging research supported in large part through universities and other agencies. It may also help to bring new researchers into the Applied Mathematics Program.</p>	<p>ASCR will consider this recommendation. ASCR will discuss this with the MMICC center directors and also examine other visitors' program to determine an appropriate implementation of such a program and the associated costs. Assuming strong interest from the MMICCs and availability of funds, ASCR may implement this recommendation in FY15.</p>
<p>The COV recommends investigating the addition of a new interdisciplinary program of applied mathematics-statistics-computer science-facilities that could drive the next generation of fundamental research broadly applicable to the analysis of experimental/observational facilities data.</p>	<p>ASCR will consider this recommendation as part of ASCR strategic planning activities.</p>
<p>The COV recommends that ASCR continue its outreach efforts to professional societies and research communities through sponsored workshops and conference attendance, as these are critical to program development.</p>	<p>ASCR agrees with this recommendation and will continue to pursue outreach to the applied mathematics community pending available funds for travel and for DOE-sponsored workshops.</p>

**Within the boundaries defined by DOE missions and available funding, comment on how the award process has affected the national and international standing of the program with regard to other applied mathematics research programs that are also focused on the demands of high performance scientific computing and analysis of massive datasets.**

The COV recommends that the review and annual reporting process for the MMICCs include a listing of awards and accolades received by the project participants with brief summaries indicating the associated technical achievements. This report can be used to highlight the leadership role of the MMICCs.

ASCR agrees with this recommendation. An annual review of the MMICCs was implemented around the same time as the COV. These recommendations are part of the annual reporting requirements of the MMICCs.

The COV recommends that the Applied Mathematics Program develop a set of key mathematical areas that will have the greatest impact on the DOE mission and in which they can either currently claim or plan to develop international leadership.

Since the COV, ASCR Applied Mathematics has defined a set of key mathematical areas, e.g. core strengths, which we consider to have to the greatest impact on the DOE mission.