Analysis IN BRIEF

AAMC
Tomorrow's Doctors, Tomorrow's Cures®

Volume 13, Number 1
February 2013

Association of American Medical Colleges

An Assessment of Bridge Funding in U.S. Medical Schools

New discoveries and medical breakthroughs from biomedical research depend on sustained support from the federal government or other external sources. In a fiscal environment where the National Institutes of Health (NIH) budget has fallen by close to 20 percent after inflation, competition for dwindling dollars in federal grants has increased markedly.[1] Some of the most successful career investigators with highly rated peer-reviewed projects have experienced sudden interruptions in funding, as success rates for research project grant applications and funding have declined.[2] In addition, the number of investigators experiencing an interruption or termination in their research funding is expected to increase, as further budget cuts for funding of biomedical research are likely.[3] Whether an institution's research program conducts $600 million or $60 million in NIH-sponsored research, the increased risk in interruption or cessation of competitive research projects can devastate established programs, leading to dislocation of faculty, trainees, and staff, and a delay or loss of medical breakthroughs.

Bridge funding is one mechanism whereby academic institutions can provide support during lapses in federal funding to investigators with high-quality research projects who are likely to regain funding in the near future. While bridge funds are not intended to fully replace or offset external sources, they can help in the short run to sustain some elements of a research project and prevent disruption and loss of momentum that could take decades to regain.

The U.S. LCME-accredited medical schools perform approximately 55 percent of all NIH extramural research, including nearly 28,000 research project grants and more than $12 billion annually.[4] This *Analysis in Brief* explores how these institutions bridge investigators who experience an interruption in funding. Information about the scope and variability of bridge funding policies designed to address these risks across medical centers may assist deans and other leaders of biomedical research programs in determining whether to implement or revise bridge funding programs at their own institutions.

Methodology

The data in this AIB come from two sources. First, in 2012, we fielded an email survey to research deans who are members of the AAMC Group on Research Advancement and Development (123 U.S. medical schools[5]). The survey elicited information about whether an institution has a bridge funding policy, what the criteria for receiving bridge funds are, what the amounts and limits of bridge awards are, and whether the school limits the number of bridge funding awards. The survey also included an open-ended question regarding other aspects of the institutions' bridge funding policies that the research deans considered notable.

Second, to analyze the details of these programs further, we reviewed the public Web sites of the 49 institutions that post bridge funding policies on publicly accessible Web sites.[6] Each site was examined at length for specific details complementing general information sought in the survey questions: for example, if bridge policies limit awards to an individual principal investigator (PI) or to an individual research project, or if bridge awards are split between institutional and departmental funds.

We collected survey information from 74 of 123 institutions (60 percent response rate), and reviewed the 49 Web sites where current policies were posted.

Results

Sixty-seven (91 percent) of the 74 institutions that responded to the survey had a formal bridge funding policy.[7] In 59 (80 percent) of the participating institutions, bridge award amounts were limited to $100,000 or less (see Figure). Respondents indicated other ways that institutions limit awards (e.g., per PI or per project). Survey results suggest that three main criteria are used to assess eligibility for bridge funding: the scientific merit of the project (determined by peer review score and/or an institutional award committee), the track record of the principal investigator, and financial considerations such as the need to retain key research support personnel.

1 http://nihrecord.od.nih.gov/newsletters/2012/07_06_2012/story1.htm

2 Initial overall success rates of NIH funding across all institutes for competing continuation of research project grants have declined from 51 to 32 percent (in 2002 and 2011, respectively); for competing continuation research project grant applications resubmitted after an initial rejection, the success rate has declined from 53 to 45 percent during the same time period. See: http://report.nih.gov/success_rates/index.aspx (Table 210)

3 See, for example, testimony by F. Collins, M.D., director, NIH: Fiscal Year 2013 Budget Request before the Senate Subcommittee on Labor—HHS—Education Appropriations. http://www.nih.gov/about/director/budgetrequest/fy2013_collins_senate.pdf

4 Information on NIH awards is available at: http://report.nih.gov/. Information on NIH awards specific to medical schools is consolidated at: http://www.brimr.org/NIH_Awards/2010/NIH_Awards_2010.htm

5 "GRAND" provides a forum for sharing information on issues guiding research at medical schools and teaching hospitals. At the time of the survey, 123 AAMC-member medical schools had designated representatives to GRAND.

6 Forty-two of these institutions responded to the email survey confirming that the posted policies were current. Seven institutions did not respond, but given the prominence of these sites on publicly available Web pages, they were also presumed to be current.

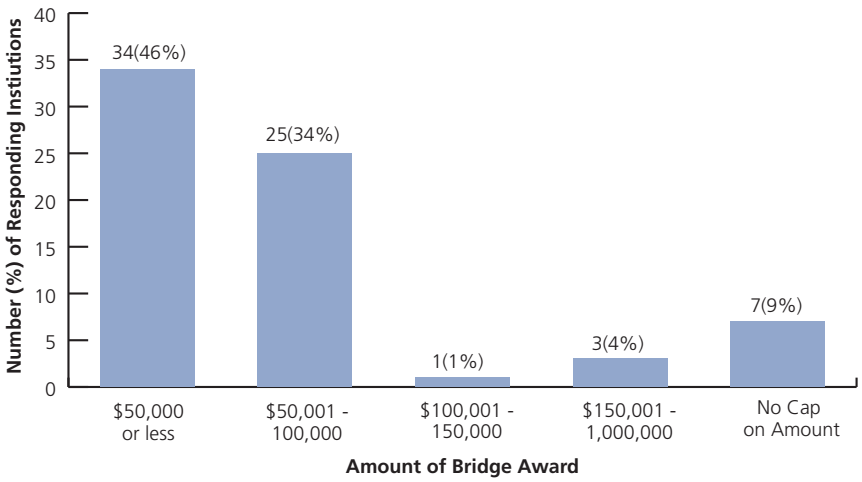
7 We refer to bridge funding "policies" generally. Some respondents also refer variously to bridge funding programs or guidelines. Bridge funding policies, programs, or guidelines are mainly intended for full-time tenured, tenure track, or research track faculty who are PIs on national extramural grants with an active submission of an external grant application.

Of the 49 institutions posting policies on their Web sites, 22 report limits on how often a single PI can receive a bridge award. The period of eligibility ranged from every 12 to 18 months (12 institutions), to every three to five years (six institutions), to one award per career (four institutions). Institutions also place limits on what aspects of a project bridge funds will cover. Thirty-two allow bridge funds to be used for research personnel, supplies, and animal care, while only 17 allow monies to be used for the salary of the PI.

While our initial questions asked about the monetary amount or limit of awards, it became clear that the contribution may be divided between the institution and individual departments. Twenty-seven institutions require the PI's department to provide matching funds to those given by the institution. Two of these institutions require bridge funding recipients to acknowledge and credit the institution for its support in any publication resulting from the supported research. All institutions require that bridge funding cease as soon as sponsored funding becomes available, and unused funds returned.[8]

Some responses and Web sites offer information regarding the actual success of these programs in sustaining ongoing research. Three institutions reported total dollar investments in bridge programs ($1.28 million, $2.2 million, and $8 million, respectively) and their calculations of the total dollar amount for research project grants that were externally funded after the investigators received the bridge funding ($14.6 million, $30.7 million, and $78 million, respectively). Of five institutions reporting overall success rates for their respective bridge funding programs, an average of 63 percent of bridged investigators subsequently received extramural funding for the most recent year available (2010 or 2011).

Figure: Individual Bridge Award Amounts among U.S. Medical Schools Reporting Bridge Funding Programs (n=74)*



* Four schools did not report on bridge award amounts

Discussion

Medical schools consider bridge support an important strategy to help sustain research programs, as demonstrated by the presence of a formal bridge funding policy or program at most participating institutions. However, even vigorous bridge funding programs cannot adequately make up for the dwindling NIH budget in sustaining biomedical research. Moreover, deeper cuts to all federal domestic discretionary spending, including NIH's budget, are widely anticipated.[9] These cuts would likely occur during other proposed reductions that would affect clinical revenue—a major source of institutional funds available for bridge programs. The prospect of decreases in funding for graduate medical education, disproportionate share payments, and uncompensated care reimbursements, will not only weaken these important, socially beneficial programs, but also will imperil the capacity of academic medical centers to provide bridge funds for temporarily maintaining research programs.

These budgetary constraints place increasing pressure on institutions to make difficult choices about how they allocate funds to support research. Bridge funding can provide one testable strategy for institutions to invest in researchers with meritorious track records. It is a mechanism through which funds go directly to a PI to provide interim support for a high-quality research program with some degree of flexibility until grant funding is regained. While bridge funding only provides modest and temporary support for otherwise competitive research projects, it could save valuable research programs. In this analysis, only a few institutions spontaneously reported the success of their programs in bridging gaps between periods of external grant support; however, their results suggest that bridge funding may be a cost-effective mechanism to help sustain research, if only as a temporary lifeline. In these fiscally perilous times, where institutions are having to make difficult choices about allocations of funds, evaluation of the bridge funding program to determine the return on investment may offer guidance in future investments.

Authors:
Stephen Heinig, M.A., Director, Science Policy, sheinig@aamc.org

Irena Tartakovsky, M.D., M.S., Sr. Science Policy Analyst, itartakovsky@aamc.org

Ann Bonham, Ph.D., Chief Scientific Officer, abonham@aamc.org

The authors thank Pamela Mercer for her extensive assistance in undertaking this analysis.

Association of American Medical Colleges
2450 N Street, N.W.
Washington, D.C. 20037-1127
analysis@aamc.org
www.aamc.org/data/aib

8 Four institutions' posted policies indicate that faculty should pay back the funds they receive using the indirect cost reimbursements generated by the newly funded grant.

9 Mann S. Sequestration could have wide-ranging implications for medical schools, teaching hospitals. AAMC Reporter. 2012. Available at: https://www.aamc.org/newsroom/reporter/october2012/308502/sequestration.html.