The Association of American Universities (AAU) has previously submitted several papers to the Committee, including:

1. **Renewing the Partnership: Thoughts on the Current Status of American Research Universities**
2. **Maintaining America’s Competitive Edge: Revitalizing the Nation’s Research Universities**
3. **Strengthening the Government-University Partnership: A Discussion Paper on University Indirect Cost Reimbursements**

In this document, we summarize the recommendations we would like the Committee to consider including in its report.

**Recommendations for the Federal Government**

**Fund research sufficiently and predictably.** The federal government should end damaging fluctuations in research appropriations and instead provide steady, sustainable, predictable increases over the long term. This would enable universities to plan their own investments in research, and it would make federal research expenditures more effective and efficient. While we cannot expect a doubling every few years, there have been and will be times when such increases are needed to maintain the nation’s leadership position in research. Immediate increases in funding must be followed by a commitment to sustaining growth at least at the rate of inflation to provide predictability about the availability of federal research funds. The federal agencies funded under the America COMPETES Act of 2010 should be funded at authorized levels in fiscal years 2011-2013, and a similar effort to lay out a predictable funding path should be made for biomedical research.

**Enhance the federal role in graduate education.** The federal government should establish long-term goals and provide more robust support for graduate education as a means of invigorating the graduate student talent pool. This will require strengthening the link between research and graduate education at the federal level. States have traditionally focused their support to colleges and universities on undergraduate education, with many state legislators questioning the value of state involvement in research and graduate education. And while the federal government has supported graduate education to some extent, most federal agencies supplying external support to graduate students through fellowships and traineeships do not pay the full cost of education, with the expectation that institutions or students will fund the gap. Recognizing that graduate education is considerably more expensive than undergraduate education, the federal government should provide greater institutional support for graduate education, either through direct subsidies or by allowing indirect costs to be applied to graduate student support funded through research grants. In addition, existing research fellowships and traineeships should be improved by strengthening the research components and reinforcing the connection between research and graduate education in faculty research grants.
Increase support for facilities and equipment. Making certain that the research faculty at our nation’s colleges and universities has facilities and equipment as up-to-date as competitors around the world should be a goal of all government funding agencies. A program contingent on matching funds from states, industry, and/or donors for the construction or renovation of facilities would ease the cost burden of universities. The Committee might look at the Canadian Innovation Foundation as one model for supporting research infrastructure at U.S. universities.

Increase support for young faculty. It is important that the nation develop additional programs to attract and support young researchers. One of the most successful programs provided by the federal government has been the provision of career awards for young faculty. An expansion of these programs would be desirable.

Reexamine and reform federal F&A (Facilities and Administration) reimbursement policies and practices. The Office of Management and Budget (OMB), working closely with the Office of Science and Technology Policy (OSTP), and federal research agencies, should examine current F&A reimbursement policies and practices to ensure that they appropriately reimburse universities for the costs they incur to conduct research on behalf of the federal government. More specifically, the following actions should be taken:

1) OMB should mandate that agencies adhere to the rules set forth in Circular A-21 and specifically prohibit agencies from paying universities less than their negotiated cost rates;
2) Congress should eliminate the statutory restrictions on cost reimbursement for research funded by the U.S. Department of Agriculture and the Department of Defense;
3) OMB should lift the 26-percent cap on cost reimbursement to a more appropriate level;
4) In accordance with a recent GAO report, OMB should identify ways to ensure that the rate-setting process for reimbursement is applied consistently at all schools, regardless of whether their rates are set by the Department of Defense or the Department of Health and Human Services;
5) OMB should reexamine other inequities in current reimbursement policies across institutions, such as the utility cost adjustment;
6) Researchers should be allowed to charge some level of administrative and compliance support directly to their Federal grants and contracts when such support helps them to increase their productivity and to reduce the time they must spend performing administrative and compliance functions relating directly to the grant or contract; and
7) OMB should work with universities to better track the costs imposed on universities by regulatory requirements. Reducing and streamlining the administrative and compliance requirements the government places upon our institutions would help both universities and the government become more efficient.
Review compliance and regulatory requirements. We specifically recommend the following:

1) Harmonize regulations and information systems between agencies and statutes where reasonable and eliminate unnecessary duplication and redundancy;
2) Eliminate regulations which do not add value or enhance accountability. We specifically encourage the elimination of current “effort reporting” requirements;
3) Provide targeted exemptions for research universities similar to protections provided for small businesses and nonprofits under the Regulatory Flexibility Act (RFA);
4) Ensure that regulations are meeting their goals in terms of performance, rather than simply in terms of process;
5) Extend coverage provided under the Unfunded Mandates Reform Act (UMRA) to research universities and allow institutions to better account for new regulatory costs, and to charge these costs to federal awards. In instances where new requirements are not effectively controlled to minimize cost burden, institutions should be allowed to establish a cost reimbursement mechanism through which the incremental costs can be recovered as a direct charge to the federal award;
6) Simplify sub-recipient monitoring requirements;
7) Reinforce the original intent of the Single Audit Act;
8) Prohibit voluntary committed cost sharing across the Federal government and create a mandatory cost sharing exemption for research universities;
9) Establish protocols to address statutorily-mandated regulatory concerns; and
10) Designate a high level official within OMB’s Office of Regulatory Affairs (OIRA) to serve as a federal Ombudsman, responsible for addressing university regulatory concerns and for seeking ways to increase regulatory efficiency.

Reform immigration. The Committee should encourage Administration and the 112th Congress to reform the nation’s immigration laws and policies. A high priority should be to streamline the permanent residency process for individuals graduating from a U.S. university with a STEM doctoral or master's degree. Another priority is to reform the temporary work authorization visa process (H-1B visas).

Recommendations for States

Enhance the role of state funding and create incentives. Allocation of funds from the federal government in support of public research universities should not be a substitute for state funds; maintenance of efforts by states should be required and audited. When possible, federal funds should be employed as an incentive for state funding, such as in the instance of support of scientific infrastructure such as new research facilities, facility modernization and research instrumentation.

Consider higher education funding as an investment. States must invest in higher education as it is a “public” good. While states are facing great fiscal challenges, cutting back on critical investments in higher education may be making such challenges even more difficult in the long-term.
Reduce regulatory burden on universities. Many flagship universities now receive less than 20 percent of their operating budgets from the states; some receive less than 10 percent. However, state governments still impose numerous rules and constraints on institutions of higher education, even though state support for these institutions has been dramatically cut over the last several years.

Provide incentives for private donors and foundations. State matches for certain private endowment donations could also provide incentives for private donors or foundations to increase their support for research universities. Because state resources are not likely to recover in the near future, states should begin to seek ways of leveraging their support to enhance the capacity of their major flagship campuses.

Recommendations for Research Universities

Improve access to research universities. Research universities have a responsibility to help meet the national goals of increasing college attendance and graduation rates of students from colleges and universities. They should expand their efforts to train qualified K-12 teachers for the public schools in the STEM disciplines by developing and replicating successful science teacher-training programs. They should expand their outreach programs to assist public schools which have large numbers of economically disadvantaged students. They should work with community colleges to facilitate increasing the number of students who transfer to research universities for baccalaureate degrees.

Increase the number and quality of American math, science, and engineering graduates. To encourage more undergraduate students to major in STEM disciplines, research universities should develop or expand undergraduate research opportunity programs for their own students as well as create or expand summer research opportunity programs for disadvantaged or minority students from colleges which cannot provide comparable research opportunities. They should continue to establish and build on professional science masters’ programs. They should develop academic personnel policies and provide institutional resources to enable more women to pursue challenging STEM careers in academia. Universities should also create incentives for their departments to place more emphasis on effective teaching of STEM disciplines. Finally, programs that encourage STEM students to pursue teaching careers at the elementary and secondary level, such as the U Teach program started at the University of Texas at Austin in 1997, should also be expanded.

Address costs. It will be important for universities to find the means of bending the cost curve in new ways. The following examples should be explored:

- Explore new modes of instruction. Savings may be achieved through exploration and development of new modes of instruction, perhaps principally through forms of on-line instruction. On-line instruction is not necessarily less expensive to deliver, but the savings may be achieved by shortening the time students require to obtain their degrees.
- Increase regional collaboration among research universities. Universities should consider developing regional collaborations with shared facilities. They should enable students to move more freely among institutions to secure the specialized training they need without the burden of non-resident tuition. This will require a new understanding of public universities by the various states and the reduction of constraints on them.

- Review administrative and compliance functions periodically to ensure they are performed as efficiently and effectively as possible. There should be significant faculty participation in such reviews.

**Build on existing successful and sustainable interventions to improve time to degree and completion rates.** Universities should review and analyze their completion and attrition patterns at the doctoral level (including disciplinary, gender, and ethnic disparities) and create or continue interventions to reduce time to degree and increase completion.

**Recommendation for Private Foundations and Industry**

**Pay full administrative costs.** Private foundations and industry should not ask universities to waive or reduce administrative cost payments.