Thank you for inviting me here today. AAU views the NRC Study on Research Universities as an important opportunity. Our hope is that this study will serve as a bookend to the Rising Above the Gathering Storm report, and – like that report – will serve as a catalyst for activity by the federal government, states, and universities. We have been working with our partners at COGR and APLU to help support the work of the Committee.

We are pleased to see that the National Science Board is devoting time to a discussion of the NRC Study. We believe the Board has an important role to play in helping to revitalize the nation’s research universities.

**History of the Partnership**

I have had several chances to address the NRC Committee, and I’ve always stressed the importance of understanding where we are now, and where we need to go in the future, in the context of the historic partnership between research universities and the federal government, as envisioned by Vannevar Bush in *Science: The Endless Frontier*. It is this partnership that has made us so successful.

One vital aspect of the partnership is the emphasis on basic research as an important national good and a driver of growth, and the nation’s reliance on universities – not private industry or government agencies – as performers of much of this basic research.

Another critical component is the linkage of basic research with education at our research universities. The next generation of researchers is trained at the same time they become part of the process of discovery and innovation.

This partnership laid the groundwork for the global leadership that our universities, and our nation, have enjoyed. The combination of strong, well-endowed private universities and large, comprehensive flagship public universities combining research and education helped make American higher education the envy of the world in an era in which the vast expansion of knowledge became the basis for economic growth and national security. The absence of central controls and the competitive environment that flourished among these universities and their research faculty stimulated a remarkable quest for excellence and scientific advancement.

Like any partnership, the partners rely on one another, and each partner has specific duties and responsibilities.

**Current Status of the Partnership**

This relationship remains strong today, but there are reasons for concern. The fiscal environment is a difficult one: for the federal government, for states, and for universities. At the same time, international competition continues to grow.
Partly driven by these factors, universities are seeing increased pressure to move away from vital parts of our mission that are less likely to pay off short-term dividends. For instance, we are seeing challenges to the value of basic research, and challenges to the humanities and the social and behavioral sciences.

The risk in these pressures is that they drive universities out-of-balance. This need for balance, need for sustainability, operates across many different dimensions on our campuses:

- Balance between the biomedical research enterprise and research in the physical sciences and engineering
- Balance between the sciences and the social sciences and humanities
- Balance between the importance of basic research and the need for universities to facilitate the transfer of some of the results of this research into the commercial sector
- Balance between universities’ linked missions of research and teaching.

Looking Forward
The original charge from Congress to the NRC asks them to outline actions that the government, the states, and universities could undertake to assure that research universities maintain their excellence. Our recommendations as to what should be included focus on a few key areas:

For the federal government:
1. *Funding research sufficiently and predictably.* This would enable universities to plan their own investments in research, and it would make federal research expenditures more effective and efficient.

2. *Enhancing the federal role in several key areas.* These include graduate education, scientific facilities and equipment, support of young faculty.

3. *Reforming federal Facilities and Administration (F&A) policies and practices.* This will help ensure that the government fulfills its side of the partnership and appropriately reimburse universities for the costs they incur to conduct research on behalf of the federal government.

4. *Reviewing compliance and regulatory requirements.* The government should work with universities so that both can keep better track of costs of regulations and operate most efficiently.

For states:
1. *Consider higher education funding as an investment.* States must invest in higher education as it is a “public” good.

2. *Reduce regulatory burdens on universities.* State governments still impose numerous rules and constraints on institutions of higher education, even though state support for these institutions has been dramatically cut.

3. *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.
For research universities:

1. **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.

2. **Increase the number and quality of American math, science, and engineering graduates.** In areas such as STEM undergraduate teaching, we can do better at applying what we know about how students learn and we need to provide better incentives for our faculty to improve in this area.

3. **Address costs.** It will be important for universities to find the means of bending the cost curve in new ways. We propose several kinds of activities that might help:
   - Explore new modes of instruction, like online learning, where shortened time-to-degree may help achieve savings.
   - Look into increased regional collaborations among research universities to share facilities and specialized training programs.
   - Review administrative and compliance functions periodically to ensure they are performed as efficiently and effectively as possible.

4. **Build on existing successful and sustainable interventions to improve time to degree and completion rates.**

**An Enhanced Role for the National Science Board**

AAU believes that the National Science Board has an important role to play as we continue our work of revitalizing the nation’s research universities.

As you all know, NSB was created in 1950 as part of the legislation that created the NSF. The Board has, of course, been central to steering NSF. But the Board also serves as an independent body of advisors to the President and Congress on national policy issues related to science and engineering research and education. This means that the Board has the opportunity to lead on these issues, not just at NSF, but throughout the government, and we would urge you to take that opportunity.

For example, we believe that NSB’s recommendations on cost-sharing should become a model for other agencies beyond NSF. Given the current fiscal position facing our universities, especially the public universities, we are no longer in a position where we can absorb additional shifting of costs for performing federal research from the government to our universities, especially when there is such great pressure elsewhere on our campuses to curtail rising tuition costs.

We also appreciate the fact the Board in its cost sharing report also brought attention to the need for the OMB to review the 26 percent cap the currently exists on reimbursement of university administrative costs.
There are other areas where the Board is uniquely positioned to be out in front of the issues and to weigh in on them in a way that could be hugely influential. Just a few examples:

- Looking at how costs associated with federal regulatory compliance could better be quantified and managed
- Looking at how incentives to improve undergraduate STEM recruitment and retention could be built into research grants
- Looking at how universities should weigh the drive to devote more resources to technology transfer and commercialization against stricter government policies on conflict of interest.

As we seek to sustain the strength of America’s research universities, our goal must be clear: to maintain our leadership in the world, to attract and educate the most talented young people, and to provide a secure and prosperous future for all Americans. If we are to succeed, we must make certain that our research universities have the resources, the regulatory framework, and the freedom necessary to fulfill their missions. The health of these institutions is essential for the nation’s future.

We look forward to continuing to work with the NRC Committee, and welcome the opportunity to work with the National Science Board, as we all continue to strive towards this goal.