Following World War II and after the Soviet launch of Sputnik in 1957, the U.S. government invested heavily in scientific infrastructure programs, many of which helped construct and renovate research facilities and laboratories at America’s colleges and universities. Many of the programs launched during that era, however, ended by the early 1970s.

The ensuing neglect of our research infrastructure threatens the long-term vitality of U.S. competitiveness. Given the significant investments in scientific infrastructure that Asian and European nations have made in recent years, it is time for America to invest in maintaining our scientific leadership by reinvesting in our research infrastructure.

The estimated need for construction, renovation, and repairs of research space at America’s colleges and universities in FY 2019 was $22 billion.

To address our nation’s infrastructure needs, AAU recommends that Congress and the administration invest at least $6 billion in the following federal research agency programs that support the development and renovation of research infrastructure at U.S. colleges and universities:

**NSF Academic Research Infrastructure (ARI)**
For repair or replacement of existing shared research facilities and research training facilities ($1.0 billion).

**NSF Mid-Scale Research Infrastructure**
For projects ranging from $6 million to $100 million, including advanced lasers, telescopes, and other critical facilities ($1.0 billion).

**NSF Major Research Instrumentation (MRI) Program**
For smaller research equipment and instrumentation, such as nanofabrication tools, spectrometers, and advanced microscopes ($600 million).
In addition to the $6 billion requested for these specific research infrastructure programs, there are other federal infrastructure programs and needs that are important to our nation’s research and innovation capacity, including:

- **Increased investments to support other important existing and new infrastructure programs** including the NSF MREFC program, DOE Science Laboratories Infrastructure program, and the new DOE Office of Science Mid-Scale Instrumentation program proposed in the House DOE Science for the Future Act.

- **Training funds** to support the specialized and technical workforce required to maintain the country’s research infrastructure.

- **Funds to increase broadband access, connectivity, and networks** to students and between U.S. colleges and universities.

- **Increased support for the national data infrastructure** required to ensure public access to federally funded research data and results.

- **Better federal coordination of scientific infrastructure priorities and needs** across federal agencies.

**AAU’s $6 billion recommendation is consistent with bipartisan calls for increased federal investments in our nation’s infrastructure, scientific research, and the American Jobs Plan’s proposal to upgrade America’s research laboratories.**