THE REPUBLICAN BUDGET: SCIENTIFIC RESEARCH

After running up the largest deficit in our nation's history, Congressional Republicans are attempting to appear fiscally responsible by cutting $6.3 billion in domestic discretionary spending below last year as part of their $2.6 trillion budget resolution. These cuts are not large enough to have any meaningful effect on the projected $390 billion budget deficit, but they will cause great harm to millions of Americans. This fact sheet summarizes the effect of the Republican budget cuts to scientific research.

THE NEED FOR A FEDERAL INVESTMENT IN BASIC SCIENTIFIC RESEARCH. Without a Federal investment in basic science, America would go without cures to diseases, energy technologies to reduce dependence on foreign oil, and one of our most important engines of economic growth. Why? The private sector, which must provide a return for shareholders, will not invest in research and development that is not quickly profitable. When it comes to demonstrating that a new discovery or technology can really work in the competitive economy, the private sector is essential. But a robust Federal investment in basic science is the key to getting these breakthroughs off the ground. Federal support of science was essential to the development of the modern computer industry, the Internet, to the revolution in agriculture that reduced the risk of starvation in much of the world, and to our basic understanding of the chemistry behind human genetics.

NATIONAL SCIENCE FOUNDATION. The National Science Foundation (NSF) supports roughly 20 percent of Federal supported basic science research conducted at America's colleges and universities. In computer science, social sciences and mathematics, NSF is the major source of Federal support. Last year, for the first time since it was established in 1950, Congressional Republicans cut basic scientific research supported by the NSF by $180 million. As a result the funding rate for high quality research applications this year is expected to be only about 20 percent (one in five grants) – a decline of 1/3 in this rate in five years. Researchers are discouraged and students are questioning their future careers in science. Yet, the Republican budget provides only an additional $132 million for NSF – a one percent increase – not even repairing the damage of the previous year.

DEPARTMENT OF ENERGY RESEARCH. Research and development at the Department of Energy is the largest source of research support for the physical sciences outside of the National Science Foundation. Last year, these efforts were funded at roughly $3.6 billion. A majority of DOE activity is related to nuclear weapons and cleaning up after their manufacturing and maintenance. Yet, the Republican budget cuts Energy Department science by $137 million. Additionally, the budget would cut another $100 million from the operations budgets of Energy Department facilities used by researchers.

NASA SCIENCE. While the Republican budget appears to provide a significant increase for NASA science, these funds are focused largely on exploration, not on the scientific investigations that should be an integral part of our space program. For example, the Hubble Space Telescope has produced 35 percent of all discoveries in the last 20 years and the Voyager program continues to provide invaluable data that has helped increase our understanding of the universe. Yet the Republican budget would eliminate both Hubble and Voyager and cut science unrelated to space flight by $300 million.

NATIONAL INSTITUTES FOR HEALTH. Research grants funded by the National Institutes of Health (NIH) help bring us closer to a day when we have treatments and cures for some the most deadly and debilitating diseases. Yet the Republican budget would allow just a 0.5 percent increase for NIH – the smallest increase in 36 years and 2.6 percent short of what would be needed just to keep up with inflation in research costs. Under their budget, there would be 505 *fewer* peer-reviewed research project grants in FY 2006 than two years earlier. Only about 21 percent of research grant applications would receive funding, down sharply from the 32 percent "success rate" in FY 2001.