Office of Science
Executive Budget Summary

The Office of Science (SC) requests $3,151,065,000 for Fiscal Year (FY) 2001in the "Science" appropriation, an increase of $363,438,000 over FY 2000, to invest in thousands of individual research projects at hundreds of research facilities across the U.S., primarily at our national laboratories and research universities. In addition, the FY 2001 request will support: continuing construction of the Spallation Neutron Source; increasing investments in nano-scale science to make significant contributions to the interagency initiative in nano-technology; implementing advanced computational modeling and simulation for DOE's broad scientific challenges; investigating the workings of the microbial cell for DOE applications; improving the utilization of our major scientific user facilities; and updating the skills of our technical workforce. Within the "Energy Supply" appropriation an increase of $702,000 is requested for the Technical Information Management program.

A History of Success:

The National Academy of Sciences has noted that much of U.S. economic growth, quality of life, and security derive from the national investment and leadership in science and technology. In FY 2000, the Department of Energy (DOE) is the third-largest government sponsor of basic research in the U.S., principally through the programs managed by SC. In service to DOE's applied missions in energy resources, national security, and environmental quality, SC programs lead the nation in many areas of the physical and computational sciences and contribute significantly to major advances in biological and environmental research. These programs have extended the frontiers of science and contribute to our economy through achievements such as:

- Supporting the fundamental research of 70 Nobel Laureates, from Enrico Fermi and E.O. Lawrence to Richard Smalley and Paul Boyer;
- Contributing to the development of the current generation of high-energy and high-power-output lithium and lithium-ion batteries through research in nonaqueous electrolytes;
- Enabling treatment of disease and addiction by building on brain-imaging studies based on SC work in Positron Emission Tomography;
- Developing computational ability exceeding one teraflop of sustained performance for DOE research applications;
- Advancing miniaturization through research into nanowires and phenomena such as conductance quantization;
- Advancing the physics of plasmas, a key element in the manufacture of materials coatings, semi-conductors, lighting systems, and waste disposal systems; and
- Discovering quarks, from the original three light ones - up, down and strange - to the heavy ones - charm, beauty, and top. All of the quarks were discovered at DOE laboratories between 1960 and 1995.

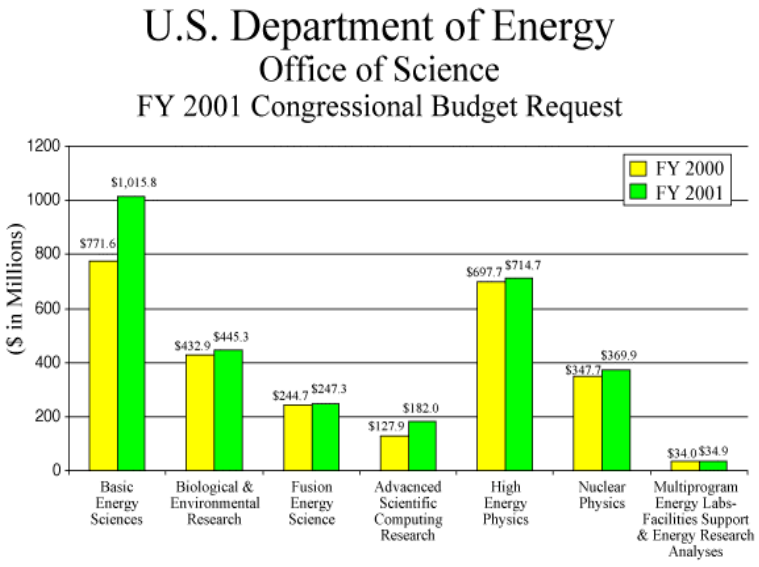

Figure 1