President's Information Technology Advisory Committee

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January 2, 2001

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The Honorable William J. Clinton President of the United States The White House Washington, DC 20500

Dear Mr. President:

Information Technology will be one of the key factors driving progress in the 21st century – it will transform the way we live, learn, work and play.

This sentence, which opened the Executive Summary of our February 1999 report, *Information Technology Research: Investing in our Future*, is truer than ever. The pace of information technology innovation continues to accelerate, and information technology increasingly permeates business, government, society and our personal lives.

The February 1999 report was the product of a two year evaluation conducted by PITAC to identify the Nation's long term needs in information technology, and to assess whether the Federal Government was adequately addressing these requirements, especially by supporting the needed investments in information technology research.

The report concluded that research investments in information technology were seriously inadequate in light of its national importance. The report recommended that the Federal Government significantly increase its support of long-term, basic information technology research, including research to address key application areas, identified as "National Challenge Transformations" in which advances would particularly benefit the Nation. The report also recommended that the Federal Government should fund research to understand and address the socioeconomic impact of the information technology revolution.

While much remains to be done, PITAC is very pleased that the Administration and Congress have accepted our findings and recommendations, and have significantly increased Federal support for long term information technology research. The National Science Foundation, which is the lead agency charged with supporting fundamental information technology research, initiated a new Information Technology Research (ITR) program to support the PITAC recommendations. In 2000, the ITR program made 231 awards to 92 institutions located in 35 states, totaling \$225M. These awards will support almost 2000 new graduate students, more than 300 undergraduates, and close to 2000 postdoctoral Fellows.

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As we indicated in our letter to you on December 30, 1999, during the past year PITAC initiated panels to study key areas that we felt needed further attention. In August 2000, PITAC released the *Report to the President on Transforming Access to Government*, which contained the major findings and recommendations of the PITAC panel on the subject. This past year, PITAC also conducted panels on the impact of IT on Transforming Learning, the report of which is in the final stages of review, and on Transforming the Practice of Health Care, for which we intend shortly to publish an interim report, followed by the final report in 2001. In September 2000 PITAC released the *Report to the President on Open Source Software for High End Computing*, and the final report of the Digital Library panel is expected shortly.

In February 2000, PITAC released its report *Resolving the Digital Divide: Information, Access and Opportunity*, setting out a number of important steps to help resolve the digital divide. These suggestions emerged from an October 1999 conference on the digital divide co-sponsored by PITAC. This year, PITAC also addressed digital divide issues faced by small colleges and universities, a report of which, *Avoiding the Digital Divide for Smaller Institutions of Higher Education*, was published by EDUCAUSE in November 2000. We also initiated a panel to explore the international dimensions of the digital divide.

For the coming year, we plan to finalize the reports of the panels mentioned above and begin new studies in key areas. PITAC has chartered a panel to look at the long-term implications of information technology on national security. A new panel is studying technology issues surrounding individual security, including "identity theft." PITAC has also started a panel charged with understanding the long-term implications of the proliferating wireless communications technologies.

PITAC also plans to update the February 1999 report, to take account of new technology advances that have occurred since the original study was completed, and to assess progress to date on implementing the report's recommendations.

Mr. President, it has been an honor for all of us to serve the country as members of PITAC. We are grateful for your trust and for the support you have given our recommendations. We truly appreciate the opportunity to work closely with the Administration and with Congress to help ensure that our long-term needs in information technology are properly addressed so the Nation can continue to reap its benefits far into the future. There is a great deal more to be done, and we look forward to serving President-elect Bush, his Administration, the Congress, and the Nation.

Sincerely,

Raj Reddy, Ph.D. PITAC, Co-chair

Irving Wladawsky-Berger PITAC, Co-chair