

CHAPTER FOUR

CONCLUSION

The United States has for many years benefited from minimal competition in the global labor market for S&E personnel. As our economy and high-technology industry grew, a fortuitous set of circumstances gave our Nation the benefit of some of the best minds in the world from other countries to help us build and sustain US world leadership in science and technology. The Federal Government has played a crucial role as sponsor of science and engineering research and advanced education, by means of which many foreign scholars and professionals have been drawn to our shores to study and work and many of our own students have pursued science and engineering degrees and careers.

The ready availability of outstanding science and engineering talent from other countries is no longer assured, as international competition for the science and engineering workforce grows. Threats to world peace and domestic security create additional constraints on employment of foreign nationals in the United States.

Moreover, demographic data indicate that participation of US students in science and engineering studies will decline if historical trends continue in S&E degree attainment by our college-age population. At the same time, retirements of scientists and engineers currently in the workforce will accelerate over the coming years.

The United States is in a long-distance race to retain its essential global advantage in S&E human resources and sustain our world leadership in science and technology. For international students and workers, attractive and competitive alternatives are emerging around the world. We must develop more fully our native talent to meet opportunities and needs of the workforce – capitalizing on and expanding successful efforts undertaken throughout our society. The Federal Government must enact policies and programs that include:

- A broad-ranging effort at all levels of education to attract, develop, and retain in the S&E workforce American-born scientists and engineers drawn aggressively from all demographic groups, and
- National efforts to enrich US workforce capabilities through opportunities for US students and professionals to participate in international science and engineering and through continued contributions by the best S&E students and professionals from other countries.

The Federal Government has a primary responsibility to lead the Nation in developing and implementing a coordinated, effective response to our long-term needs for science and engineering skills. US global leadership and future national prosperity and security depend on meeting this challenge.