APPENDIX C

Summary of Recommendations from Selected Reports

1. Lower barriers for immigration of high-skilled individuals
2. Increase government investment in science, tech R & D, physical sciences and engineering
3. Improve K-12 math & science curriculum
4. Improve teacher education/content knowledge
5. Improve working environment for teachers
6. Establish teacher mentoring/collaboration programs
7. Increase STEM teacher salaries
8. Provide opportunities/incentives for professional development
9. Alter attitudes of young people toward STEM careers/classes
10. Provide loans/scholarships to pursue STEM degrees
11. Provide fellowships to teach STEM subjects
12. Provide students with STEM career incentives
13. Create more flexible certification
14. Attract women and minorities
15. * Increase business role in STEM education
16. Expand professional science masters
17. Engage the public

DATE	TITLE	AUTHORS	FOCUS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Sep-2000	Before It's Too Late: A Report to the Nation from the National Commission on Mathematics and Science Teaching for the 21st Century	The Glenn Commission - Teachers, business leaders, education leaders, science officials, professors, political leaders	Our well-being depends on how well we educate our children in math and science. Our children are falling behind, as the 12th grade TIMMS showed. We are failing to capture their interest or imagination. Better teaching is the lever for change. We need to improve the quality of instruction and that includes doing much more to attract and retain high quality math and science teachers.			X	X	X	X	X	X		X					X		X
15-Mar-2001	Road Map for National Security: Imperative for Change	The United States Commission on National Security/ 21st Century - headed by former Senators Hart and Rudman, includes other former legislators, Executive Branch officials, military leaders, and representatives from business, academia and the news media.	In national security, sharp distinctions between foreign and domestic no longer apply. National security extends far beyond "defense." The inadequacies of our systems of research and education pose a greater threat to our national security than any conventional war.	X		X		X		X	X	X	X	X	X	X	X			

Source: Illinois Business Roundtable, 2006

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DATE	TITLE	AUTHORS	FOCUS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
2003	Learning for the Future: Changing the Culture of Math and Science Education to Ensure a Competitive Workforce	The Research and Policy Committee of the Committee for Economic Development - The Committee is comprised of business and civic leaders	Improving math and science education is critical for providing the high-quality and diverse technical labor force and the scientifically literate citizenry that we need. Widespread math and science achievement will also widen the pipeline of scientists and engineers who drive innovation. We need to change the negative culture and increase student "demand" for math and science achievement.			X	X			X	X	X				X	X	X		
2004	An Emerging and Critical Problem of the Science and Engineering Labor Force: A Companion to Science and Engineering Indicators 2004	National Science Board - an independent policy body established by Congress whose responsibilities are as national science policy advisor to the President and the Congress, and governing board for the National Science Foundation	This four-page report highlights the troubling decline in the number of U.S. citizens who are training to become scientists and engineers and how that will affect America's standing globally. It also emphasizes that any growth in the S&E labor force has been maintained by a large number of foreign-born S&E graduates migrating to the U.S.																	X
Jan-04	Choose to Compete: How innovation, investment, and productivity can grow U.S. jobs and ensure American competitive-ness in the 21st century.	Computer Systems Policy Project - the information technology industry's leading advocacy organization comprised exclusively of CEOs	The report focuses on the need for increased investment in innovation as well as educational and occupational training as key components to securing America's global success in IT fields.		X	X		X			X					X				
25-Jun-04	Sustaining the Nation's Innovation Ecosystem: Maintaining the Strength of Our Science and Engineering Capabilities	Executive Office of the President/ President's Council of Advisors on Science and Technology	This report examines the status of the Nation's science and engineering capabilities and the education pipeline that supports them. It emphasizes the strong correlation among mathematics, science education, workforce preparation, and the ultimate health of our Nation's innovation ecosystem.	X		X	X	X		X				X	X	X	X		X	
Dec-04	Innovate America	Council on Competitiveness National Innovation Initiative – a group of CEOs, university presidents and labor leaders	The Council's Initiative organized their recommendations into three broad categories: talent, investment, and infrastructure. Their education agenda falls under the talent category.	X		X							X	X					X	

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Summary of Recommendations from Selected Reports (continued)

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Jan-05	A Commitment to America's Future: Responding to the Crisis in Mathematics & Science Education	Business-Higher Education Forum - a group of leaders from the corporate, academic, military and nonprofit sectors	This report calls for business and higher education leaders to engage ina long-term, coherent, and cohesive effort to improve the quality of U.S. mathematics and science education to ensure the continued leadership of the United States in mathematics, science, technology and innovation.			X	X	X	X	X	X	X				X	X	X	X	X
Feb-05	Losing the Competitive Advantage? The Challenge for Science and Technology in the United States	American Electronics Association - largest high-tech trade association in U.S., representing nearly 3,000 companies	U.S. leadership in technology was built on continual investment, education, and research. We are no longer maintaining this infrastructure—and we are slipping.	X	X	X						X								
16-Feb-05	The Knowledge Economy: Is the United States Losing Its Competitive Edge? Benchmarks for our Innovation Future	The Task Force on the Future of American Innovation - a coalition of professional organizations, businesses and nonprofits focused in the science and technology industries	The Task Force identified key benchmarks and "signs of trouble" within six essential areas to help policymakers and others assess U.S. high-tech competitiveness and the health of the American science and engineering enterprise. The six areas are education, workforce, knowledge creation and new ideas, R & D investment, high tech economy, and high tech sector.		X															

Source: Illinois Business Roundtable, 2006

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DATE	TITLE	AUTHORS	FOCUS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Feb-05	An Action Agenda for Improving America's High Schools	Achieve, Inc. (an organization created by governors and business leaders to raise academic standards and achievement) and the National Governors Association	Demands of college and work are far different today than a generation ago, but our high schools are virtually unchanged, the quality of the curriculum is too low, and high schools fail to prepare a large percentage of our students for work and higher education. We need more challenging high stakes tests and graduation requirements and better relationships between high schools and colleges. Governors should bring together business leaders, state officials, and educators to chart a new path for high schools.			**X**	**X**				**X**		**X**			**X**				
2004	Teaching at Risk: A Call to Action	The Teaching Commission – a group of 19 leaders in government, business, and education established and chaired by Louis Gerstner, Jr., former Chairman of IBM	A report outlining recommendations for ensuring high-quality teachers are given competitive compensation tied to student performance, that nobody is allowed to teach without the right knowledge and skills; and that teachers are given on-the-job support that enables them to succeed.						**X**	**X**	**X**					**X**				
27-July 2005	Tapping America's Potential: The Education for Innovation Initiative Building Public Support	National Business Roundtable	Tapping America's Potential focuses on building a national commitment to improve U.S. science, technology, engineering and mathematics education. A group of industry leaders will make the case for national and state investments in research, innovation, science, technology, engineering and mathematics that will strengthen U.S. education performance and workforce competitiveness in the worldwide economy.		X	X	X		X		X	X	X	X	**X**			**X**		**X**
20-Oct 2005	Rising Above The Gathering Storm: Energizing and Employing America for a Brighter Economic Future	Norman R. Augustine: Retired Chairman and Chief Executive Officer Lockheed Martin Corporation and Chair, Committee on Prospering in the Global Economy of the 21st Century Committee on Science, Engineering, and Public Policy Division on Policy and Global Affairs, The National Academies	The thrust of our findings is straightforward. The standard of living of Americans in the years ahead will depend to a very large degree on the quality of the jobs that they are able to hold. Without quality jobs our citizens will not have the purchasing power to support the standard of living which they seek, and to which many have become accustomed; tax revenues will not be generated to provide for strong national security and healthcare; and the lack of a vibrant domestic consumer market will provide a disincentive for either U.S. or foreign companies to invest in jobs in America.	**X**	**X**	**X**					**X**	**X**	**X**	**X**	**X**			**X**	**X**	**X**	**X**