

# America's Perfect Storm

*Three Forces Changing Our Nation's Future*

## Preface to America's Perfect Storm

*Dear God, be good to me;  
The sea is so wide,  
And my boat is so small.*

These lines, from the Breton Fisherman's Prayer, strike an image of vulnerability for those who may not be adequately prepared for a challenging environment. A similar image is cast by Irwin Kirsch, Henry Braun, Kentaro Yamamoto, and Andrew Sum in *America's Perfect Storm: Three Forces Changing our Nation's Future*. The authors offer the image of our nation as a nautical convoy. Some boats are large, well built and able to ride out the heaviest of turbulent seas. Others are smaller, but still quite sturdy, and able to survive. But, many are fragile, meagerly equipped and easily capsized in rough waters. This convoy is in the midst of a perfect storm that is the result of a confluence of three powerful forces.

The authors document and describe these three forces — divergent skill distributions among U.S. population groups, a changing economy and demographic trends of a growing, more diverse population. They project the impact of these interactions upon the nation 25 years into the future. Kirsch and his colleagues warn us that the confluence of these factors can create a powerful dynamic that continually feeds the storm — putting our nation at great risk. They offer hope, however, that if we act now and invest in policies that will help our nation grow together, we can meet our ideals as a nation offering real opportunity for all its citizens and continue our leading role in the world.

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## Executive Summary

Our nation is in the midst of a perfect storm — the result of the confluence of three powerful forces — that is having a considerable impact on our country. If we maintain our present policies, it is very likely that we will continue to grow apart, with greater inequity in wages and wealth, and increasing social and political polarization. If, however, we recognize the power of these forces as they interact over the years — and we change course accordingly — then we have an opportunity to reclaim the American dream in which each of us has a fair chance at sharing in any future prosperity.

What are the three forces comprising this perfect storm? They are divergent skill distributions, the changing economy and demographic trends.

The first force contributing to our country's perfect storm is the wide disparity in literacy and numeracy skills among our school-age and adult populations.

- High school graduation rates peaked at 77 percent in 1969, fell back to 70 percent in 1995 and have stayed in this range into the current decade. The graduation rate for disadvantaged minorities is thought to be closer to 50 percent. A recent report by the Organisation for Economic Co-operation and Development (OECD) indicates that the United States ranked 16th out of 21 OECD countries with respect to high school graduation rates.

- Data from the National Assessment of Educational Progress (NAEP) reveal that between 1984 and 2004 reading scores among 13- and 17-year-olds remained flat, and the achievement gaps were large and relatively stable. For mathematics the story is only slightly different. While the mean scores for both the nation's 13- and 17-year-olds improved slightly, they did so across all groups, with the result that the average size of the Black-White and Hispanic-White achievement gaps remained large and relatively stable.

### Trends in Average NAEP Scores for 13- and 17-Year-Old Students in Reading and Math

	NAEP Assessment Years			
	1984	1990	1996	2004
<b>Reading</b>				
Age 13	257	257	258	259
Age 17	289*	290	288	285
	1986	1992	1996	2004
<b>Math</b>				
Age 13	269*	273*	274*	281
Age 17	302*	307	307	307

Source: Marianne Perie, Rebecca Moran, and Anthony D. Lutkus, *NAEP 2004 Trends in Academic Progress: Three Decades of Student Performance in Reading and Mathematics* (NCES 2005-464), U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, Washington, D.C., July 2005.

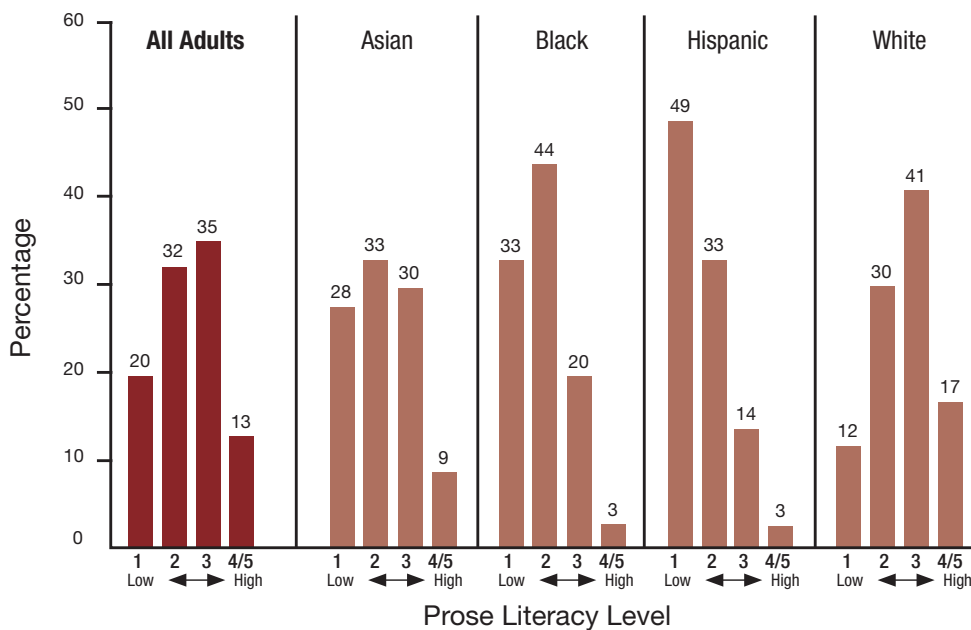
\*Significantly different from 2004.

- National surveys of our adult population indicate that large numbers of our nation’s adults, 16 years of age and older, do not demonstrate sufficient literacy and numeracy skills needed to fully participate in an increasingly competitive work environment. These skills are also needed to function effectively in our complex society, with its large bureaucratic institutions and its complex legal, health care and retirement systems.
- More importantly, these skills are not evenly distributed across groups defined by race/ethnicity, country of birth and socioeconomic status. In fact, there are substantial differences in average proficiencies among these groups that influence their social, educational and economic opportunities.

balance between capital and labor. These changes have been driven by both technological innovation and globalization, resulting in a profound restructuring of the U.S. workplace. Indeed, the labor markets of today are markedly different from those of earlier decades. For example:

- In 1950, manufacturing’s share of total employment in the United States was 33.1 percent. By 1989, it was down to 18.2 percent and by 2003, it was 10.7 percent.
- Between 1984 and 2000 the number of employed persons 16 years of age and older grew by 29 percent, or some 30 million. At the same time, employment in jobs associated with college-level education grew by some 20 million, accounting for two-thirds of the job growth.

**Percentage of Adults in Each Prose Literacy Proficiency Level, by Race/Ethnicity**



Source: Adult Literacy and Life Skills (ALLS) Survey, 2005

- The country’s employment growth is expected to continue through the rest of this decade and into the next, with college labor market clusters (professional, management, technical and high-level sales) expected to generate about 46 percent of all job growth between 2004 and 2014.

One important consequence of this shift in the composition of jobs in our country has been the increasing economic returns to schooling and skills. For example:

- International surveys of student and adult populations indicate that while our average performance is no better than mediocre, our degree of inequality (the gap between our best and least proficient) is among the highest in OECD countries.

The second force comprises the seismic changes in our economy that have resulted in new sources of wealth, novel patterns of international trade and a shift in the

- The expected lifetime earnings of males with a bachelor’s degree in 1979 were 51 percent higher than their peers with only a high school diploma. By 2004, however, this difference had widened to 96 percent.

- The earnings premiums accruing to a particular level of educational attainment (e.g., high school diploma, bachelor’s degree) are substantially larger for individuals at that level who have higher cognitive skills, indicating that *both* education *and* skills contribute to individual opportunities. These opportunities include not only higher paying jobs but also the chance for individuals to take advantage of employer-sponsored training to enhance and broaden their skills throughout their working lives.

**Mean Lifetime Earnings of 18- to 64-Year-Old Males in the United States, by Educational Attainment, (in Constant 2005 CPI-U Dollars)**

Educational Attainment	1979	2004	Absolute Change	Percent Change
No high school diploma or GED	\$1,577,466	\$960,365	-\$617,101	-39.1
H.S. diploma/GED, no completed years of college	\$1,814,595	\$1,380,636	-\$433,957	-23.9
1-3 years of college, including Associate's degree	\$2,007,712	\$1,738,411	-\$269,301	-13.4
Bachelor's degree	\$2,736,270	\$2,702,793	-\$33,478	-1.2
Master's or higher degree	\$3,039,355	\$3,506,939	\$467,584	15.2
All	\$1,879,696	\$1,902,375	\$22,679	1.2

Source: 1980 Census of Population and Housing, PUMS files, tabulations by the authors; and 2004 American Community Surveys, public use files, tabulations by the authors.

**Projected Changes in Occupational Employment in the United States, in Selected Occupational Groups, 2004-2014 (in 1,000s, Annual Averages)**

Occupational Group	2004	2014	Absolute Change	Percent Change
All	145,612	164,540	18,928	13.0
Management, business and financial occupations	14,987	17,142	2,155	14.4
Professional and technical, all	28,544	34,590	6,064	21.2
High-level sales	5,325	5,818	466	8.7
Retail Sales	8,445	9,382	937	11.1
Service occupations	27,673	32,930	5,257	19.0
Office and administrative support	23,907	25,287	1,380	5.8
Construction and extraction	7,738	8,669	931	12.0
Installation, maintenance and repair	5,747	6,404	657	11.5
Production	10,562	10,483	- 79	- .7
Transportation and material moving	10,098	11,214	1,116	11.1

Source: Daniel Hecker, "Occupational Employment Projections to 2014," *Monthly Labor Review*, November 2005.

The third force involves sweeping demographic changes. The U.S. population is projected to grow from nearly 300 million in 2005 to more than 360 million in 2030. Over this period, our population will become increasingly older and more diverse, with immigration having a significant impact on the composition of the workforce, as well as of the general population.

- The U.S. labor force is projected to grow more slowly over the next 20 years than it did between 1980 and 2000. None of this growth is predicted to come from native-born workers of prime working age (25 to 54).
- During the 1980s, international migration accounted for about 21 percent of our nation's population growth; with that contribution rising to 31 percent in the 1990s. Moreover, the U.S. Census Bureau expects that between 2000 and 2015, net international migration will account for more than half of our nation's population growth.
- Fueled both by higher birth rates and by immigration, the Hispanic share of the population is expected to grow from 14 percent in 2005 to slightly more than 20 percent by 2030.
- In 2004, nearly 57 percent of the 16- to 64-year-old Hispanic population in the United States was foreign-born, up from 46 percent in 1990. More than half of these immigrant Hispanics lacked a high school diploma.
- The lack of a high school diploma by such a large proportion of Hispanic immigrants is of concern given the fact that almost 80 percent of immigrants who have not earned a high school diploma report not speaking English well or at all.

**Distribution of New Immigrants into the United States, Age 16 and Older, by Self-Reported English-Speaking Proficiency and by Educational Attainment, 2000-2004**

Educational Attainment	Only Speaks English	Speaks English Very Well	Speaks English Well	Does Not Speak English Well	Does Not Speak English
1 to 12 years, no diploma	6%	6%	9%	32%	47%
12 years, high school diploma or GED	9	16	19	36	21
13 to 15 years	16	30	24	21	9
Bachelor's degree	14	36	28	17	5
Master's degree or higher	11	48	27	12	3
Total	10	22	19	26	23

Source: 2004 American Community Surveys, public use files. Tabulations by the authors.

These three forces — substantial disparities in the distributions of skills, economic restructuring and demographic trends — are each powerful in their own right. But as they play out together over time, the result is truly a perfect storm that, unlike the storm chronicled by Sebastian Junger<sup>1</sup>, continues to gain strength with no end in sight.

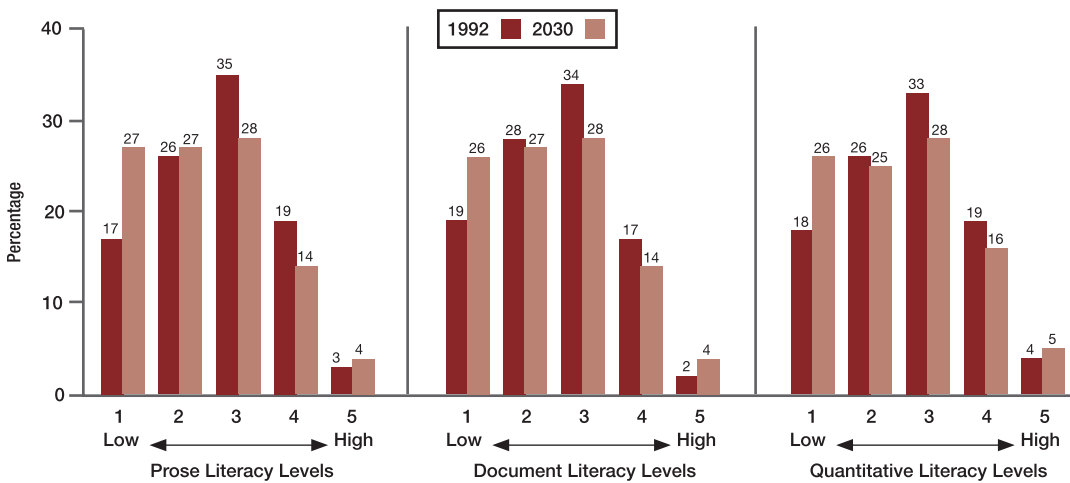
- Employing demographic projections combined with current skill distributions, we estimate that by 2030 the average levels of literacy and numeracy in the working-age population will have decreased by about 5 percent while inequality will have increased by about 7 percent. Put crudely, over the next 25 years or so, as better-educated individuals leave the workforce they will be replaced by those who, on average, have lower levels of education and skill. Over this same period, nearly half of the projected job growth will be concentrated in occupations associated with higher education and skill levels. This means that tens of millions more of our students and adults will be less able to qualify for higher-paying jobs. Instead,

they will be competing not only with each other and millions of newly arrived immigrants but also with equally (or better) skilled workers in lower-wage economies around the world.

As we argue in this report, it is both the growth of human capital and how it is distributed that is important for the United States. Human capital is critical, however, not just because of the economic implications. Benjamin Friedman<sup>2</sup> links our economic well-being to the fabric of our society, arguing that individuals and societies are more trusting, more inclusive and more open to change when they see their futures and that of their children as bright and secure. He concludes that “Economic growth is not merely the enabler of higher consumption; it is in many ways the wellspring from which democracy and civil society flow.”

- Given the forces described in this report, a looming question is whether we will continue to grow apart or, as a nation, we will invest in policies that will help us to grow together. We strongly believe the latter is the better course of action over the long term.

**Change in the Distribution of Prose, Document and Quantitative Literacy, 1992 and 2030 (Projected)**



Source: Data for 1992 from National Adult Literacy Survey, 1992; data for 2030 projected by authors. Data are for adults, ages 16 to 65.

- While new policies focusing only on education and skills will not solve all the challenges associated with existing inequalities, if our society's overall levels of learning and skills are not increased and the existing gaps are not narrowed, there is little chance that economic opportunities will improve among key segments of our population.

<sup>1</sup> Sebastian Junger authored *The Perfect Storm: A True Story of Men Against the Sea*. Published in 1997, Junger's book recounts the tale of the October 1991 "perfect storm," focusing on the loss of the Gloucester sword-fishing boat Andrea Gail off the coast of Nova Scotia.

<sup>2</sup> See Benjamin M. Friedman, "Meltdown: A Case Study," *Atlantic Monthly*, July/August 2005.

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