through a fundamental economic transformation. Advances in digital technology, fiber optics, the Internet, satellites, and transportation have effectively leveled the economic barriers between countries and continents. Pools of capital scour the earth in search of the best returns, with trillions of dollars moving across borders with only a few keystrokes. The collapse of the Soviet Union, the institution of market-based reforms in India and China, the lowering of trade barriers, and the advent of big-box retailers like Wal-Mart have brought several billion people into direct competition with American companies and American workers. Whether or not the world is already flat, as columnist and author Thomas Friedman says, it is certainly getting flatter every day.

There's no doubt that globalization has brought significant benefits to American consumers. It's lowered prices on goods once considered luxuries, from big-screen TVs to peaches in winter, and increased the purchasing power of low-income Americans. It's helped keep inflation in check, boosted returns for the millions of Americans now invested in the stock market, provided new markets for U.S. goods and services, and allowed countries like China and India to dramatically reduce poverty, which over the long term makes for a more stable world.

But there's also no denying that globalization has greatly increased economic instability for millions of ordinary Americans. To stay competitive and keep investors happy in the global marketplace, U.S.-based companies have automated, downsized, outsourced, and offshored. They've held the line on wage increases, and replaced defined-benefit health and retirement plans with 401(k)s

and Health Savings Accounts that shift more cost and risk onto workers.

The result has been the emergence of what some call a "winner-take-all" economy, in which a rising tide doesn't necessarily lift all boats. Over the past decade, we've seen strong economic growth but anemic job growth; big leaps in productivity but flatlining wages; hefty corporate profits, but a shrinking share of those profits going to workers. For those like Larry Page and Sergey Brin, for those with unique skills and talents and for the knowledge workers—the engineers, lawyers, consultants, and marketers—who facilitate their work, the potential rewards of a global marketplace have never been greater. But for those like the workers at Maytag, whose skills can be automated or digitized or shifted to countries with cheaper wages, the effects can be dire—a future in the ever-growing pool of low-wage service work, with few benefits, the risk of financial ruin in the event of an illness, and the inability to save for either retirement or a child's college education.

The question is what we should do about all this. Since the early nineties, when these trends first began to appear, one wing of the Democratic Party—led by Bill Clinton—has embraced the new economy, promoting free trade, fiscal discipline, and reforms in education and training that will help workers to compete for the high-value, high-wage jobs of the future. But a sizable chunk of the Democratic base—particularly blue-collar union workers like Dave Bevard—has resisted this agenda. As far as they're concerned, free trade has served the interests of Wall Street but has done little to stop the hemorrhaging of good-paying American jobs.

The Republican Party isn't immune from these tensions. With the recent uproar around illegal immigration, for example, Pat Buchanan's brand of "America first" conservatism may see a resurgence within the GOP, and present a challenge to the Bush Administration's free trade policies. And in his 2000 campaign and early in his first term, George W. Bush suggested a legitimate role for government, a "compassionate conservatism" that, the White House argues, has expressed itself in the Medicare prescription drug plan and the educational reform effort known as No Child Left Behind—and that has given small-government conservatives heartburn.

For the most part, though, the Republican economic agenda under President Bush has been devoted to tax cuts, reduced regulation, the privatization of government services—and more tax cuts. Administration officials call this the Ownership Society, but most of its central tenets have been staples of laissez-faire economics since at least the 1930s: a belief that a sharp reduction—or in some cases, elimination—of taxes on incomes, large estates, capital gains, and dividends will encourage capital formation, higher savings rates, more business investment, and greater economic growth; a belief that government regulation inhibits and distorts the efficient working of the market; and a belief that government entitlement programs are inherently inefficient, breed dependency, and reduce individual responsibility, initiative, and choice.

Or, as Ronald Reagan succinctly put it: "Government is not the solution to our problem; government is the problem."

So far, the Bush Administration has only achieved one-half of its equation; the Republican-controlled Congress

has pushed through successive rounds of tax cuts, but has refused to make tough choices to control spending—special interest appropriations, also known as earmarks, are up 64 percent since Bush took office. Meanwhile, Democratic lawmakers (and the public) have resisted drastic cuts in vital investments—and outright rejected the Administration's proposal to privatize Social Security. Whether the Administration actually believes that the resulting federal budget deficits and ballooning national debt don't matter is unclear. What is clear is that the sea of red ink has made it more difficult for future administrations to initiate any new investments to address the economic challenges of globalization or to strengthen America's social safety net.

I don't want to exaggerate the consequences of this stalemate. A strategy of doing nothing and letting globalization run its course won't result in the imminent collapse of the U.S. economy. America's GDP remains larger than China's and India's combined. For now, at least, U.S.-based companies continue to hold an edge in such knowledge-based sectors as software design and pharmaceutical research, and our network of universities and colleges remains the envy of the world.

But over the long term, doing nothing probably means an America very different from the one most of us grew up in. It will mean a nation even more stratified economically and socially than it currently is: one in which an increasingly prosperous knowledge class, living in exclusive enclaves, will be able to purchase whatever they want on the marketplace—private schools, private health care, private security, and private jets—while a growing number of their fellow citizens are consigned to low-paying service jobs, vulnerable to dislocation, pressed to work

longer hours, dependent on an underfunded, overburdened, and underperforming public sector for their health care, their retirement, and their children's educations.

It will mean an America in which we continue to mortgage our assets to foreign lenders and expose ourselves to the whims of oil producers; an America in which we underinvest in the basic scientific research and workforce training that will determine our long-term economic prospects and neglect potential environmental crises. It will mean an America that's more politically polarized and more politically unstable, as economic frustration boils over and leads people to turn on each other.

Worst of all, it will mean fewer opportunities for younger Americans, a decline in the upward mobility that's been at the heart of this country's promise since its founding.

That's not the America we want for ourselves or our children. And I'm confident that we have the talent and the resources to create a better future, a future in which the economy grows and prosperity is shared. What's preventing us from shaping that future isn't the absence of good ideas. It's the absence of a national commitment to take the tough steps necessary to make America more competitive—and the absence of a new consensus around the appropriate role of government in the marketplace.

TO BUILD THAT consensus, we need to take a look at how our market system has evolved over time. Calvin Coolidge once said that "the chief business of the American people is business," and indeed, it would be hard to find a country on earth that's been more consistently hospitable to the logic of the marketplace. Our Constitution places the ownership of private property at the very heart of our system of liberty. Our religious traditions celebrate the value of hard work and express the conviction that a virtuous life will result in material reward. Rather than vilify the rich, we hold them up as role models, and our mythology is steeped in stories of men on the make—the immigrant who comes to this country with nothing and strikes it big, the young man who heads West in search of his fortune. As Ted Turner famously said, in America money is how we keep score.

The result of this business culture has been a prosperity that's unmatched in human history. It takes a trip overseas to fully appreciate just how good Americans have it; even our poor take for granted goods and services—electricity, clean water, indoor plumbing, telephones, televisions, and household appliances—that are still unattainable for most of the world. America may have been blessed with some of the planet's best real estate, but clearly it's not just our natural resources that account for our economic success. Our greatest asset has been our system of social organization, a system that for generations has encouraged constant innovation, individual initiative, and the efficient allocation of resources.

It should come as no surprise, then, that we have a tendency to take our free-market system as a given, to assume that it flows naturally from the laws of supply and demand and Adam Smith's invisible hand. And from this assumption, it's not much of a leap to assume that any government intrusion into the magical workings of the market—whether through taxation, regulation, lawsuits, tariffs, labor protections, or spending on entitlements—necessarily

undermines private enterprise and inhibits economic growth. The bankruptcy of communism and socialism as alternative means of economic organization has only reinforced this assumption. In our standard economics textbooks and in our modern political debates, laissez-faire is the default rule; anyone who would challenge it swims against the prevailing tide.

It's useful to remind ourselves, then, that our free-market system is the result neither of natural law nor of divine providence. Rather, it emerged through a painful process of trial and error, a series of difficult choices between efficiency and fairness, stability and change. And although the benefits of our free-market system have mostly derived from the individual efforts of generations of men and women pursuing their own vision of happiness, in each and every period of great economic upheaval and transition we've depended on government action to open up opportunity, encourage competition, and make the market work better.

In broad outline, government action has taken three forms. First, government has been called upon throughout our history to build the infrastructure, train the workforce, and otherwise lay the foundations necessary for economic growth. All the Founding Fathers recognized the connection between private property and liberty, but it was Alexander Hamilton who also recognized the vast potential of a national economy—one based not on America's agrarian past but on a commercial and industrial future. To realize this potential, Hamilton argued, America needed a strong and active national government, and as America's first Treasury secretary he set about putting his ideas to work. He nationalized the Revolutionary

War debt, which not only stitched together the economies of the individual states but helped spur a national system of credit and fluid capital markets. He promoted policies—from strong patent laws to high tariffs—to encourage American manufacturing, and proposed investment in roads and bridges needed to move products to market.

Hamilton encountered fierce resistance from Thomas Jefferson, who feared that a strong national government tied to wealthy commercial interests would undermine his vision of an egalitarian democracy tied to the land. But Hamilton understood that only through the liberation of capital from local landed interests could America tap into its most powerful resource—namely the energy and enterprise of the American people. This idea of social mobility constituted one of the great early bargains of American capitalism; industrial and commercial capitalism might lead to greater instability, but it would be a dynamic system in which anyone with enough energy and talent could rise to the top. And on this point, at least, Jefferson agreed—it was based on his belief in a meritocracy, rather than a hereditary aristocracy, that Jefferson would champion the creation of a national, government-financed university that could educate and train talent across the new nation, and that he considered the founding of the University of Virginia to be one of his greatest achievements.

This tradition, of government investment in America's physical infrastructure and in its people, was thoroughly embraced by Abraham Lincoln and the early Republican Party. For Lincoln, the essence of America was opportunity, the ability of "free labor" to advance in life. Lincoln considered capitalism the best means of creating such opportunity, but he also saw how the transition from an

agricultural to an industrial society was disrupting lives and destroying communities.

So in the midst of civil war, Lincoln embarked on a series of policies that not only laid the groundwork for a fully integrated national economy but extended the ladders of opportunity downward to reach more and more people. He pushed for the construction of the first transcontinental railroad. He incorporated the National Academy of Sciences, to spur basic research and scientific discovery that could lead to new technology and commercial applications. He passed the landmark Homestead Act of 1862, which turned over vast amounts of public land across the western United States to settlers from the East and immigrants from around the world, so that they, too, could claim a stake in the nation's growing economy. And then, rather than leave these homesteaders to fend for themselves, he created a system of land grant colleges to instruct farmers on the latest agricultural techniques, and to provide them the liberal education that would allow them to dream beyond the confines of life on the farm.

Hamilton's and Lincoln's basic insight—that the resources and power of the national government can facilitate, rather than supplant, a vibrant free market—has continued to be one of the cornerstones of both Republican and Democratic policies at every stage of America's development. The Hoover Dam, the Tennessee Valley Authority, the interstate highway system, the Internet, the Human Genome Project—time and again, government investment has helped pave the way for an explosion of private economic activity. And through the creation of a system of public schools and institutions of higher education, as well as programs like the GI Bill that made a

college education available to millions, government has helped provide individuals the tools to adapt and innovate in a climate of constant technological change.

Aside from making needed investments that private enterprise can't or won't make on its own, an active national government has also been indispensable in dealing with market failures—those recurring snags in any capitalist system that either inhibit the efficient workings of the market or result in harm to the public. Teddy Roosevelt recognized that monopoly power could restrict competition, and made "trust busting" a centerpiece of his administration. Woodrow Wilson instituted the Federal Reserve Bank, to manage the money supply and curb periodic panics in the financial markets. Federal and state governments established the first consumer laws—the Pure Food and Drug Act, the Meat Inspection Act—to protect Americans from harmful products.

But it was during the stock market crash of 1929 and the subsequent Depression that the government's vital role in regulating the marketplace became fully apparent. With investor confidence shattered, bank runs threatening the collapse of the financial system, and a downward spiral in consumer demand and business investment, FDR engineered a series of government interventions that arrested further economic contraction. For the next eight years, the New Deal administration experimented with policies to restart the economy, and although not all of these interventions produced their intended results, they did leave behind a regulatory structure that helps limit the risk of economic crisis: a Securities and Exchange Commission to ensure transparency in the financial markets and protect smaller investors from fraud and insider

manipulation; FDIC insurance to provide confidence to bank depositors; and countercyclical fiscal and monetary policies, whether in the form of tax cuts, increased liquidity, or direct government spending, to stimulate demand when business and consumers have pulled back from the market.

Finally—and most controversially—government has helped structure the social compact between business and the American worker. During America's first 150 years, as capital became more concentrated in trusts and limited liability corporations, workers were prevented by law and by violence from forming unions that would increase their own leverage. Workers had almost no protections from unsafe or inhumane working conditions, whether in sweatshops or meatpacking plants. Nor did American culture have much sympathy for workers left impoverished by capitalism's periodic gales of "creative destruction"—the recipe for individual success was greater toil, not pampering from the state. What safety net did exist came from the uneven and meager resources of private charity.

Again, it took the shock of the Great Depression, with a third of all people finding themselves out of work, ill housed, ill clothed, and ill fed, for government to correct this imbalance. Two years into office, FDR was able to push through Congress the Social Security Act of 1935, the centerpiece of the new welfare state, a safety net that would lift almost half of all senior citizens out of poverty, provide unemployment insurance for those who had lost their jobs, and provide modest welfare payments to the disabled and the elderly poor. FDR also initiated laws that fundamentally changed the relationship between capital and labor: the forty-hour workweek, child labor laws, and minimum wage

laws; and the National Labor Relations Act, which made it possible to organize broad-based industrial unions and forced employers to bargain in good faith.

Part of FDR's rationale in passing these laws came straight out of Keynesian economics: One cure for economic depression was putting more disposable income in the pockets of American workers. But FDR also understood that capitalism in a democracy required the consent of the people, and that by giving workers a larger share of the economic pie, his reforms would undercut the potential appeal of government-managed, command-and-control systems—whether fascist, socialist, or communist—that were gaining support all across Europe. As he would explain in 1944, "People who are hungry, people who are out of a job are the stuff of which dictatorships are made."

For a while this seemed to be where the story would end—with FDR saving capitalism from itself through an activist federal government that invests in its people and infrastructure, regulates the marketplace, and protects labor from chronic deprivation. And in fact, for the next twenty-five years, through Republican and Democratic administrations, this model of the American welfare state enjoyed a broad consensus. There were those on the right who complained of creeping socialism, and those on the left who believed FDR had not gone far enough. But the enormous growth of America's mass production economy, and the enormous gap in productive capacity between the United States and the war-torn economies of Europe and Asia, muted most ideological battles. Without any serious rivals, U.S. companies could routinely pass on higher labor and regulatory costs to their customers. Full employment allowed unionized factory workers to move

into the middle class, support a family on a single income, and enjoy the stability of health and retirement security. And in such an environment of steady corporate profits and rising wages, policy makers found only modest political resistance to higher taxes and more regulation to tackle pressing social problems—hence the creation of the Great Society programs, including Medicare, Medicaid, and welfare, under Johnson; and the creation of the Environmental Protection Agency and Occupational Safety and Health Administration under Nixon.

There was only one problem with this liberal triumph—capitalism would not stand still. By the seventies, U.S. productivity growth, the engine of the postwar economy, began to lag. The increased assertiveness of OPEC allowed foreign oil producers to lop off a much bigger share of the global economy, exposing America's vulnerability to disruptions in energy supplies. U.S. companies began to experience competition from low-cost producers in Asia, and by the eighties a flood of cheap imports—in textiles, shoes, electronics, and even automobiles—had started grabbing big chunks of the domestic market. Meanwhile, U.S.-based multinational corporations began locating some of their production facilities overseas—partly to access these foreign markets, but also to take advantage of cheap labor.

In this more competitive global environment, the old corporate formula of steady profits and stodgy management no longer worked. With less ability to pass on higher costs or shoddy products to consumers, corporate profits and market share shrank, and corporate shareholders began demanding more value. Some corporations found ways to improve productivity through innovation and

automation. Others relied primarily on brutal layoffs, resistance to unionization, and a further shift of production overseas. Those corporate managers who didn't adapt were vulnerable to corporate raiders and leveraged buyout artists, who would make the changes for them, without any regard for the employees whose lives might be upended or the communities that might be torn apart. One way or another, American companies became leaner and meaner—with old-line manufacturing workers and towns like Galesburg bearing the brunt of this transformation.

It wasn't just the private sector that had to adapt to this new environment. As Ronald Reagan's election made clear, the people wanted the government to change as well.

In his rhetoric, Reagan tended to exaggerate the degree to which the welfare state had grown over the previous twenty-five years. At its peak, the federal budget as a total share of the U.S. economy remained far below the comparable figures in Western Europe, even when you factored in the enormous U.S. defense budget. Still, the conservative revolution that Reagan helped usher in gained traction because Reagan's central insight—that the liberal welfare state had grown complacent and overly bureaucratic, with Democratic policy makers more obsessed with slicing the economic pie than with growing the pie—contained a good deal of truth. Just as too many corporate managers, shielded from competition, had stopped delivering value, too many government bureaucracies had stopped asking whether their shareholders (the American taxpayer) and their consumers (the users of government services) were getting their money's worth.

Not every government program worked the way it was advertised. Some functions could be better carried out by

the private sector, just as in some cases market-based incentives could achieve the same results as command-and-control-style regulations, at a lower cost and with greater flexibility. The high marginal tax rates that existed when Reagan took office may not have curbed incentives to work or invest, but they did distort investment decisions—and did lead to a wasteful industry of setting up tax shelters. And while welfare certainly provided relief for many impoverished Americans, it did create some perverse incentives when it came to the work ethic and family stability.

Forced to compromise with a Democrat-controlled Congress, Reagan would never achieve many of his most ambitious plans for reducing government. But he fundamentally changed the terms of the political debate. The middle-class tax revolt became a permanent fixture in national politics and placed a ceiling on how much government could expand. For many Republicans, noninterference with the marketplace became an article of faith.

Of course, many voters continued to look to the government during economic downturns, and Bill Clinton's call for more aggressive government action on the economy helped lift him to the White House. After the politically disastrous defeat of his health-care plan and the election of a Republican Congress in 1994, Clinton had to trim his ambitions but was able to put a progressive slant on some of Reagan's goals. Declaring the era of big government over, Clinton signed welfare reform into law, pushed tax cuts for the middle class and working poor, and worked to reduce bureaucracy and red tape. And it was Clinton who would accomplish what Reagan never did, putting the nation's fiscal house in order even while

lessening poverty and making modest new investments in education and job training. By the time Clinton left office, it appeared as if some equilibrium had been achieved—a smaller government, but one that retained the social safety net FDR had first put into place.

Except capitalism is still not standing still. The policies of Reagan and Clinton may have trimmed some of the fat of the liberal welfare state, but they couldn't change the underlying realities of global competition and technological revolution. Jobs are still moving overseas—not just manufacturing work, but increasingly work in the service sector that can be digitally transmitted, like basic computer programming. Businesses continue to struggle with high health-care costs. America continues to import far more than it exports, to borrow far more than it lends.

Without any clear governing philosophy, the Bush Administration and its congressional allies have responded by pushing the conservative revolution to its logical conclusion—even lower taxes, even fewer regulations, and an even smaller safety net. But in taking this approach, Republicans are fighting the last war, the war they waged and won in the eighties, while Democrats are forced to fight a rearguard action, defending the New Deal programs of the thirties.

Neither strategy will work anymore. America can't compete with China and India simply by cutting costs and shrinking government—unless we're willing to tolerate a drastic decline in American living standards, with smog-choked cities and beggars lining the streets. Nor can America compete simply by erecting trade barriers and raising the minimum wage—unless we're willing to confiscate all the world's computers.

But our history should give us confidence that we don't have to choose between an oppressive, government-run economy and a chaotic and unforgiving capitalism. It tells us that we can emerge from great economic upheavals stronger, not weaker. Like those who came before us, we should be asking ourselves what mix of policies will lead to a dynamic free market and widespread economic security, entrepreneurial innovation and upward mobility. And we can be guided throughout by Lincoln's simple maxim: that we will do collectively, through our government, only those things that we cannot do as well or at all individually and privately.

In other words, we should be guided by what works.

WHAT MIGHT SUCH a new economic consensus look like? I won't pretend to have all the answers, and a detailed discussion of U.S. economic policy would fill up several volumes. But I can offer a few examples of where we can break free of our current political stalemate; places where, in the tradition of Hamilton and Lincoln, we can invest in our infrastructure and our people; ways that we can begin to modernize and rebuild the social contract that FDR first stitched together in the middle of the last century.

Let's start with those investments that can make America more competitive in the global economy: investments in education, science and technology, and energy independence.

Throughout our history, education has been at the heart of a bargain this nation makes with its citizens: If you work hard and take responsibility, you'll have a

chance for a better life. And in a world where knowledge determines value in the job market, where a child in Los Angeles has to compete not just with a child in Boston but also with millions of children in Bangalore and Beijing, too many of America's schools are not holding up their end of the bargain.

In 2005 I paid a visit to Thornton Township High School, a predominantly black high school in Chicago's southern suburbs. My staff had worked with teachers there to organize a youth town hall meeting—representatives of each class spent weeks conducting surveys to find out what issues their fellow students were concerned about and then presented the results in a series of questions to me. At the meeting they talked about violence in the neighborhoods and a shortage of computers in their classrooms. But their number one issue was this: Because the school district couldn't afford to keep teachers for a full school day, Thornton let out every day at 1:30 in the afternoon. With the abbreviated schedule, there was no time for students to take science lab or foreign language classes.

How come we're getting shortchanged? they asked me. Seems like nobody even expects us to go to college, they said.

They wanted more school.

We've become accustomed to such stories, of poor black and Latino children languishing in schools that can't prepare them for the old industrial economy, much less the information age. But the problems with our educational system aren't restricted to the inner city. America now has one of the highest high school dropout rates in the industrialized world. By their senior year, American

high school students score lower on math and science tests than most of their foreign peers. Half of all teenagers can't understand basic fractions, half of all nine-year-olds can't perform basic multiplication or division, and although more American students than ever are taking college entrance exams, only 22 percent are prepared to take college-level classes in English, math, and science.

I don't believe government alone can turn these statistics around. Parents have the primary responsibility for instilling an ethic of hard work and educational achievement in their children. But parents rightly expect their government, through the public schools, to serve as full partners in the educational process—just as it has for earlier generations of Americans.

Unfortunately, instead of innovation and bold reform of our schools—the reforms that would allow the kids at Thornton to compete for the jobs at Google—what we've seen from government for close to two decades has been tinkering around the edges and a tolerance for mediocrity. Partly this is a result of ideological battles that are as outdated as they are predictable. Many conservatives argue that money doesn't matter in raising educational achievement; that the problems in public schools are caused by hapless bureaucracies and intransigent teachers' unions; and that the only solution is to break up the government's education monopoly by handing out vouchers. Meanwhile, those on the left often find themselves defending an indefensible status quo, insisting that more spending alone will improve educational outcomes.

Both assumptions are wrong. Money does matter in education—otherwise why would parents pay so much to live in well-funded suburban school districts?—and many

urban and rural schools still suffer from overcrowded classrooms, outdated books, inadequate equipment, and teachers who are forced to pay out of pocket for basic supplies. But there's no denying that the way many public schools are managed poses at least as big a problem as how well they're funded.

Our task, then, is to identify those reforms that have the highest impact on student achievement, fund them adequately, and eliminate those programs that don't produce results. And in fact we already have hard evidence of reforms that work: a more challenging and rigorous curriculum with emphasis on math, science, and literacy skills; longer hours and more days to give children the time and sustained attention they need to learn; early childhood education for every child, so they're not already behind on their first day of school; meaningful, performance-based assessments that can provide a fuller picture of how a student is doing; and the recruitment and training of transformative principals and more effective teachers.

This last point—the need for good teachers—deserves emphasis. Recent studies show that the single most important factor in determining a student's achievement isn't the color of his skin or where he comes from, but who the child's teacher is. Unfortunately, too many of our schools depend on inexperienced teachers with little training in the subjects they're teaching, and too often those teachers are concentrated in already struggling schools. Moreover, the situation is getting worse, not better: Each year, school districts are hemorrhaging experienced teachers as the Baby Boomers reach retirement, and two million teachers must be recruited in the next decade just to meet the needs of rising enrollment.

The problem isn't that there's no interest in teaching; I constantly meet young people who've graduated from top colleges and have signed up, through programs like Teach for America, for two-year stints in some of the country's toughest public schools. They find the work extraordinarily rewarding; the kids they teach benefit from their creativity and enthusiasm. But by the end of two years, most have either changed careers or moved to suburban schools—a consequence of low pay, a lack of support from the educational bureaucracy, and a pervasive feeling of isolation.

If we're serious about building a twenty-first-century school system, we're going to have to take the teaching profession seriously. This means changing the certification process to allow a chemistry major who wants to teach to avoid expensive additional course work; pairing up new recruits with master teachers to break their isolation; and giving proven teachers more control over what goes on in their classrooms.

It also means paying teachers what they're worth. There's no reason why an experienced, highly qualified, and effective teacher shouldn't earn $100,000 annually at the peak of his or her career. Highly skilled teachers in such critical fields as math and science—as well as those willing to teach in the toughest urban schools—should be paid even more.

There's just one catch. In exchange for more money, teachers need to become more accountable for their performance—and school districts need to have greater ability to get rid of ineffective teachers.

So far, teacher's unions have resisted the idea of pay for performance, in part because it could be disbursed at the

whim of a principal. The unions also argue—rightly, I think—that most school districts rely solely on test scores to measure teacher performance, and that test scores may be highly dependent on factors beyond any teacher's control, like the number of low-income or special-needs students in their classroom.

But these aren't insoluble problems. Working with teacher's unions, states and school districts can develop better measures of performance, ones that combine test data with a system of peer review (most teachers can tell you with amazing consistency which teachers in their schools are really good, and which are really bad). And we can make sure that nonperforming teachers no longer handicap children who want to learn.

Indeed, if we're to make the investments required to revamp our schools, then we will need to rediscover our faith that every child *can* learn. Recently, I had the chance to visit Dodge Elementary School, on the West Side of Chicago, a school that had once been near the bottom on every measure but that is in the midst of a turnaround. While I was talking to some of the teachers about the challenges they faced, one young teacher mentioned what she called the "These Kids Syndrome"—the willingness of society to find a million excuses for why "these kids" can't learn; how "these kids come from tough backgrounds" or "these kids are too far behind."

"When I hear that term, it drives me nuts," the teacher told me. "They're not 'these kids.' They're our kids."

How America's economy performs in the years to come may depend largely on how well we take such wisdom to heart.

OUR INVESTMENT IN education can't end with an improved elementary and secondary school system. In a knowledge-based economy where eight of the nine fastest-growing occupations this decade require scientific or technological skills, most workers are going to need some form of higher education to fill the jobs of the future. And just as our government instituted free and mandatory public high schools at the dawn of the twentieth century to provide workers the skills needed for the industrial age, our government has to help today's workforce adjust to twenty-first-century realities.

In many ways, our task should be easier than it was for policy makers a hundred years ago. For one thing, our network of universities and community colleges already exists and is well equipped to take on more students. And Americans certainly don't need to be convinced of the value of a higher education—the percentage of young adults getting bachelor's degrees has risen steadily each decade, from around 16 percent in 1980 to almost 33 percent today.

Where Americans do need help, immediately, is in managing the rising cost of college—something with which Michelle and I are all too familiar (for the first ten years of our marriage, our combined monthly payments on our undergraduate and law school debt exceeded our mortgage by a healthy margin). Over the last five years, the average tuition and fees at four-year public colleges, adjusted for inflation, have risen 40 percent. To absorb these costs, students have been taking on ever-increasing debt levels, which discourages many undergraduates from pursuing careers in less lucrative fields like teaching. And an estimated two hundred thousand college-qualified students each year choose to forgo college altogether because they can't figure out how to pay the bills.

There are a number of steps we can take to control costs and improve access to higher education. States can limit annual tuition increases at public universities. For many nontraditional students, technical schools and online courses may provide a cost-effective option for retooling in a constantly changing economy. And students can insist that their institutions focus their fund-raising efforts more on improving the quality of instruction than on building new football stadiums.

But no matter how well we do in controlling the spiraling cost of education, we will still need to provide many students and parents with more direct help in meeting college expenses, whether through grants, low-interest loans, tax-free educational savings accounts, or full tax deductibility of tuition and fees. So far, Congress has been moving in the opposite direction, by raising interest rates on federally guaranteed student loans and failing to increase the size of grants for low-income students to keep pace with inflation. There's no justification for such policies—not if we want to maintain opportunity and upward mobility as the hallmark of the U.S. economy.

There's one other aspect of our educational system that merits attention—one that speaks to the heart of America's competitiveness. Since Lincoln signed the Morrill Act and created the system of land grant colleges, institutions of higher learning have served as the nation's primary research and development laboratories. It's through these institutions that we've trained the innovators of the future, with the federal government providing critical support for

the infrastructure—everything from chemistry labs to particle accelerators—and the dollars for research that may not have an immediate commercial application but that can ultimately lead to major scientific breakthroughs.

Here, too, our policies have been moving in the wrong direction. At the 2006 Northwestern University commencement, I fell into a conversation with Dr. Robert Langer, an Institute Professor of chemical engineering at MIT and one of the nation's foremost scientists. Langer isn't just an ivory tower academic—he holds more than five hundred patents, and his research has led to everything from the development of the nicotine patch to brain cancer treatments. As we waited for the procession to begin, I asked him about his current work, and he mentioned his research in tissue engineering, research that promised new, more effective methods of delivering drugs to the body. Remembering the recent controversies surrounding stem cell research, I asked him whether the Bush Administration's limitation on the number of stem cell lines was the biggest impediment to advances in his field. He shook his head.

"Having more stem cell lines would definitely be useful," Langer told me, "but the real problem we're seeing is significant cutbacks in federal grants." He explained that fifteen years ago, 20 to 30 percent of all research proposals received significant federal support. That level is now closer to 10 percent. For scientists and researchers, this means more time spent raising money and less time spent on research. It also means that each year, more and more promising avenues of research are cut off—especially the high-risk research that may ultimately yield the biggest rewards.

Dr. Langer's observation isn't unique. Each month, it

seems, scientists and engineers visit my office to discuss the federal government's diminished commitment to funding basic scientific research. Over the last three decades federal funding for the physical, mathematical, and engineering sciences has declined as a percentage of GDP—just at the time when other countries are substantially increasing their own R & D budgets. And as Dr. Langer points out, our declining support for basic research has a direct impact on the number of young people going into math, science, and engineering—which helps explain why China is graduating eight times as many engineers as the United States every year.

If we want an innovation economy, one that generates more Googles each year, then we have to invest in our future innovators—by doubling federal funding of basic research over the next five years, training one hundred thousand more engineers and scientists over the next four years, or providing new research grants to the most outstanding early-career researchers in the country. The total price tag for maintaining our scientific and technological edge comes out to approximately $42 billion over five years—real money, to be sure, but just 15 percent of the most recent federal highway bill.

In other words, we can afford to do what needs to be done. What's missing is not money, but a national sense of urgency.

THE LAST CRITICAL investment we need to make America more competitive is in an energy infrastructure that can move us toward energy independence. In the past, war or a direct threat to national security has shaken