

**THE 21ST CENTURY WORKPLACE: PREPARING  
FOR TOMORROW'S EMPLOYMENT TRENDS TODAY**

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**HEARING**  
OF THE  
**COMMITTEE ON HEALTH, EDUCATION,  
LABOR, AND PENSIONS**  
**UNITED STATES SENATE**  
ONE HUNDRED NINTH CONGRESS

FIRST SESSION

ON

EXAMINING ISSUES RELATING TO THE 21ST CENTURY WORKPLACE, FO-  
CUSING ON PREPARING FOR TOMORROW'S EMPLOYMENT TRENDS  
TODAY

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MAY 26, 2005

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THURSDAY, MAY 26, 2005

U.S. SENATE,  
COMMITTEE ON HEALTH, EDUCATION, LABOR AND PENSIONS,  
*Washington, DC.*

The committee met, pursuant to notice, at 10:00 a.m., in room SD-430, Dirksen Senate Office Building, Hon. Michael B. Enzi (chairman of the committee) presiding.

Present: Senators Enzi, Isakson, and Kennedy.

## OPENING STATEMENT OF SENATOR ENZI

The CHAIRMAN. Since it is 10 o'clock, I will call this hearing to order.

I want to welcome everybody to this hearing on the 21st century workplace. A lot of the information that we will be gathering today will be usable not only in the Workforce Investment Act, but in a number of issues that we will be considering throughout the year. This committee has one of the biggest workloads, I think, with 38 reauthorizations that we need to do before the end of September, and we are well into those and have passed quite a few out of committee already.

Today we will be looking for the answers to several questions about the workforce of tomorrow. Among them, how will tomorrow's workforce differ from today's? What kind of jobs will tomorrow's employers be looking to fill? What skills will tomorrow's workers need to fill those jobs? And, most importantly, what can we do now to be sure that we are ready when tomorrow arrives at our national doorstep?

Our ability to compete effectively in an ever growing global marketplace has always been tied directly to our most valuable natural resource—the working men and women of America. Our workforce is and always has been the enduring strength of our economy. If we are to maintain a leadership role in the global economy, our workers will need to develop the skills and training they will need to be a part of tomorrow's workforce. They will need to keep these skills current through the use of education and training programs that will keep them in touch with the dramatic advances in their career areas that are sure to come in the years ahead.

We have already seen the advances that have sent ripples of change through every sector of our society. Those changes are likely to not only continue but to come at faster and faster paces. The

new prize employee will be the one who can learn the fastest, adapt to change the easiest, and apply those skills to the job the quickest.

Tomorrow's workforce must possess problem-solving, communication, and technological skills far more advanced than its predecessor. To ensure the existence of such a workforce, we must not only provide adequate lifelong opportunities for education and training, we must also foster a culture that values education and encourages the development of skills.

The future will also change the face of tomorrow's workforce. We cannot afford to ignore the profound changes that demographics will bring. An extraordinarily low birth rate and the continuing exodus of the baby boom generation have caused one observer to remark that our labor pool may soon be a shallow puddle. These predictions are neither speculative nor alarmist. They are simply another aspect of the future workforce that must be anticipated and addressed.

One way to address these changes is to encourage the entry of more nontraditional workers into the workplaces as well as to tap the growing supply of older workers. Both will need their own inducements to join the workforce that will range from flex-time schedules to changes in Government policies that currently serve to punish instead of encourage the participation of seniors in the workforce. Both groups will want advances and improvements in their quality of health care, their retirement benefits, and other similar programs, if we are successfully to convince them to remain in or return to the workforce.

Additionally, individuals who had planned on spending their golden years traveling and visiting with grandchildren can be attracted back to work by innovative policies. For example, one large nationwide retailer allows employees to work 6 months in one location and then transfer to another location. Through this policy, an employee gains freedom and travel opportunities, and the employer retains a trained and valuable employee.

Employers will also be affected. The best way to address their need for the more highly skilled employees will be to offer and maintain their own training programs. With the cost of high-tech equipment and the inherent need to keep machinery active and operational as much as possible, business can no longer afford a skills and talent gulf between skilled and less skilled employees. While we may have some idea of what is coming in the future in this area, we must admit that many of the developments are unforeseeable. Employers will continue to use technology to maximize effectiveness and to improve employees' lives, but we must be sure that America's youth gain the skills they will need to work in the even more technical world to come.

Technological developments will continue to transform our world as well as our workplaces. The developments of the past century or maybe even just the last 5 years could not have been predicted decades ago. These changes have enabled innovations like telework, created the opportunity for greater workforce participation for the disabled, and increased the speed and efficiency in virtually all work applications.

Make no mistake, the global marketplace is not a thing of the future. It is a fact of life today. The jobs it will create will determine the standard of living of tomorrow's worker. If we do not fully prepare our workforce to meet the challenges of the future, our failure will soon be seen in a reduced living standard of our workers. How we deal with these changes will play a great role in determining the future of our Nation and the strength of our economy. If we are to continue to maintain our role as a leader in today's global marketplace, the competition for skilled workers and advanced technology jobs is a battle we dare not lose.

During today's hearing, we will be looking to our witnesses to help navigate us through the lessons of the past, current trends, and projected changes in a wide range of employment factors to make sure we win this battle.

Senator Kennedy will not be able to be with us at the start of the hearing this morning. He is doing a markup in Judiciary. That is where they make amendments or approve nominees, and that requires a quorum, which we had to do yesterday by calling some people even out of Judiciary. So when he comes by, we will give him an opportunity to make a statement at that point, and his staff is here and will be taking notes, as is other staff.

We are very pleased to have the three witnesses here today to help us understand what the workplace will look like in the coming decades. I will introduce the witnesses all at once, and then each of them will give statements, hopefully summarizing their testimony to be about 5 minutes in length, and then we will have questions.

First I would like to welcome Tamara Erickson, the executive officer and member of the board of directors of Concours Group, a management consulting firm based in Watertown, MA. She holds a bachelor's degree from the University of Chicago and an MBA from Harvard University. Ms. Erickson has researched and published extensively on the topics of coming demographic shifts, the ability of employers to attract and retain older workers, and what she has titled "The New Employer-Employee Equation," a phrase which summarizes the changing nature of what employees expect from work and how employers can attract, retain, and engage quality employees.

We are also pleased to welcome Diana Furchtgott-Roth—did I get that right?

Ms. FURCHTGOTT-ROTH. You did.

The CHAIRMAN. All right. Director of the Center for Employment Policy at the Hudson Institute here in Washington, D.C. Ms. Furchtgott-Roth holds master's degrees in philosophy and economics from Oxford University and earned her B.A. cum laude in economics at Swarthmore College. She has held several important positions in three administrations, including chief economist of the Department of Labor, chief of staff to the Council of Economic Advisers, and associate director of the Domestic Policy Council and Office of Policy Planning under the former President George H.W. Bush.

We are also pleased to have Jared Bernstein, director of the Living Standards Program at the Economic Policy Institute here in Washington, D.C. Dr. Bernstein holds a Ph.D. in social welfare

from Columbia University and held the position of deputy chief economist at the Department of Labor under the Clinton administration.

We also invited to testify today Gary Garczynski, a past president of the Home Builders Institute, which focuses on workforce development for the construction industry, on behalf of the National Association of Home Builders. Unfortunately, due to an unavoidable conflict, Mr. Garczynski is not able to join us today. However, his testimony will be submitted for the record. This testimony details some of the creative ways the home-building industry has reached out to nontraditional employees to fill the severe and growing skilled employee shortage facing the industry.

For example, the industry has worked with Job Corps Centers to train and employ 2,000 kids a year, and they have created programs targeting the homeless, court-involved youth, adult ex-offenders, people with disabilities, people over age 55, and women veterans. The goal of these outreach programs is twofold: first, it spreads the message that the construction industry offers good-paying jobs for skilled employees; simultaneously, the programs test drive recruitment methods among nontraditional employees that industry members can replicate in the face of the upcoming 1-million-worker shortfall. In short, it is a win-win and something I think many other industries could learn from.

[The prepared statement of Mr. Garczynski follows:]

PREPARED STATEMENT OF GARY GARCZYNSKI

Mr. Chairman, Ranking Member, and members of the committee, thank you for this opportunity to testify. It is an honor and I am delighted to have been invited to share with you what we in the home building industry are doing to develop our workforce, address our labor shortages and plan for the new century.

The National Association of Home Builders' (NAHB) 220,000 member firms are involved in home building, remodeling, multifamily construction, property management, subcontracting, design, housing finance, building product manufacturing and other aspects of residential and light commercial construction. Known as "the voice of the housing industry," NAHB is affiliated with more than 800 State and local home builder associations (HBAs) around the country. NAHB's builder members will construct about 80 percent of the more than 1.6 million new housing units projected for 2005, making the housing industry one of the largest engines of economic growth in the country.

One of the most pressing problems facing our industry today is a shortage of skilled workers. Factors contributing to this shortage include record high numbers in the demand for the construction of new homes, retirements in our industry, and dwindling interest in the skilled trades among America's younger generations. Compounding the problem has been insufficient training opportunities for those considering a career in the industry. As you know, the number of construction career programs offered by high schools, postsecondary vocational schools and community colleges has declined dramatically over the past 25 years, and training through the public workforce development system is limited.

According to the Bureau of Labor Statistics, more than 240,000 new workers are needed each year to meet the Nation's demand for housing. Importantly, it is also estimated that within the next decade, our Nation will need to construct 18 million new homes to meet demand, a goal that will only be met by the addition of over a million new skilled workers to our industry.

Many of you will recall that a few years ago Labor Secretary Elaine Chao released the Department's workforce plan calling for the active engagement of industry and the private sector in developing the workforce of the 21st Century. NAHB has been involved in developing our industry's labor force for more than 30 years through the Home Builders Institute (HBI), our workforce development arm, and working with the Department of Labor in particular, to address the need for skilled workers.

Following Secretary Chao's announcement, NAHB's Immediate Past President Bobby Rayburn met with the Secretary and her staff to reassert our industry's com-

mitment to working with the Department, and to discuss the dire situation faced by the housing sector. Faced with record demand, and confronting an ongoing shortage of workers, we were very pleased when the Department subsequently identified construction as a High Growth Industry. NAHB and HBI have continued to work with the Department in a number of positive workforce development efforts.

#### **Job Corps Training and Placement**

For example, since 1974, HBI has partnered with the Department of Labor to provide skilled trades training to young people enrolled in Job Corps. Training is only part of what we do in Job Corps. HBI instructors offer a direct connection to careers in our industry while providing support and hope to some of our Nation's most at-risk youth.

HBI offers craft training programs in seven trades—brick masonry, carpentry, electrical wiring, facilities maintenance, landscaping, painting, and plumbing—and as the largest training partner in Job Corps, HBI currently offers 148 programs at 69 centers in 40 States and the District of Columbia.

Through our 800 State and local home builder associations, many HBI programs on Job Corps campuses offer students access to work-based learning and internship opportunities, as well as free membership to NAHB through the NAHB Student Chapters program; and of course, access to unsubsidized employment.

HBI's Job Corps programs help more than 2,000 students each year start careers in our industry, and have resulted in a remarkable job placement rate of over 90 percent. For those who qualify, there is the HBI/Lowe's Building Careers Scholarship Fund which helps students transition to the workplace by covering basic costs such as rent, household goods or a car to get to work.

The commitment of the National Association of Home Builders and the Home Builders Institute to help disadvantaged and at-risk youth find stable and successful careers in our industry could not be stronger, and we are proud of the partnership we have enjoyed with the Department of Labor through Job Corps.

#### **Project CRAFT for Court-Involved Youth**

HBI has worked through similar public and private partnerships to address our industry's need for qualified employees by targeting specialized populations. Project CRAFT, (Community, Restitution, Apprenticeship-Focused Training) is an award-winning program that helps court-involved youth by teaching them construction skills and providing them with a gamut of support services to ensure their successful transition back into the "real world." The building industry offers these young people—who otherwise might have no options—a unique ladder to economic success and independence.

Since the mid 1990s, there has been an increased awareness among the private and public sector stakeholders of the need for vocational education as a complement to educational remediation in the intervention programs for adjudicated youth. A young person who earns a GED must additionally acquire a set of work-based skills in order to achieve career success. Career and vocational education programs like Project CRAFT give these young people the extra training and information they need to turn what they learned in their GED program into a successful life-long career.

In 1994, the Department of Labor awarded a Youth Opportunity Demonstration Grant to HBI to implement Project CRAFT pilots in Maryland, Tennessee and North Dakota. The program brought together for the first time business, juvenile justice, education and workforce development in one program approach. Its essential components then, and today, remain:

- Partnership Building and Linkages
- Industry-Driven Training
- Community Involvement
- Leadership Development
- Job Placement
- Comprehensive Service Delivery
- Followup Services

Project CRAFT incorporates the apprenticeship concept of hands-on training and academic instruction, including numeracy, literacy and employability skills curricula. Students learn residential construction skills while completing thousands of hours of community service construction projects.

The replication of the CRAFT model began soon after the three pilot sites evidenced their first 12-month outcomes. State and local agencies began to partner with HBI to offer adjudicated youth the vocational and holistic training piloted by Project CRAFT. The program is being implemented at residential facilities, as well as a community-based aftercare program for juveniles.

During program year 2003 (July 2003–June 2004), Project CRAFT trained more than 400 youth in:

- Florida, on four sites through the State Department of Juvenile Justice
- Dallas, in partnership with SER-Jobs for Progress, the Dallas County Department of Juvenile Justice and Work Source Dallas
- Monroe Township, funded by the New Jersey Juvenile Justice Commission
- Nashville, Tennessee, through a Youth Offender Demonstration grant from the U.S. Department of Labor, with the Davidson County Drug Court, the Tennessee Department of Correction and the Tennessee Board of Probation and Parole
- Jackson, Miss., funded by the State Department of Human Services, established in May 2004

Cumulative outcomes for these Project CRAFT programs in program year 2003, not including the newest program in Mississippi, saw an average wage upon placement of \$8.58/hour with 85 percent of students placed in jobs in the industry after graduation.

Job Corps and Project CRAFT are youth-focused programs where industry and government produce tangible positive outcomes. These programs have earned a reputation as worthwhile investments of taxpayers' hard-earned dollars, a significant resource to the Nation's building industry and a major contributor to the future success of thousands of young people.

#### **HEART for Homeless Veterans**

HBI's HEART (Homeless Employment and Related Training) was developed as a model pilot program funded by the Department of Labor and is currently serving 30 homeless veterans and ex-offenders a year in Columbia, South Carolina. Like our other training programs, HEART provides these veterans with important skills training and career information to obtain employment in our industry. The program is conducted in cooperation with the Home Builders Association (HBA) of Greater Columbia and the Alston Wilkes Society. After 7 successful years, this program is hoping to secure continued funding after year's end. HBI continues to hope that additional resources will become available for us to be able to continue this worthwhile program.

#### **Reentry Through TRADE**

Serving a different population is Project TRADE (Training, Restitution, Apprenticeship Development Employment), a program that currently trains and places 210 adult ex-offenders a year in industry jobs. TRADE is implemented in Colorado Springs in partnership with ComCor, the State's largest community corrections provider and in Sheridan, Illinois, in partnership with the Illinois Department of Corrections.

Other programs that HBI has implemented include:

- CRAFT SKILLS (Community Restitution Apprenticeship-Focused Training Seniors Keeping Intensive Life Long Skills) which in collaboration with the National Council on Aging (NCOA), offers adults 55 and over training and job placement in facilities maintenance.
- *Doors to Success* introduces women veterans to the world of careers in the residential building industry. HBI was funded by the U.S. Department of Labor's Office of Veterans' Employment and Training Services to help veterans transition to new careers in housing. This program in particular, if replicated, has the potential for great success as thousands of our military personnel, male and female, return from tours of duty abroad and seek skills training and employment in civilian industries.
- Project HOPE (Homebuilding—Opportunities for Positive Employment) trained and placed people with disabilities for employment in the home building industry in Denver with the Home Builders Association (HBA) of Metro Denver, the Colorado Department of Vocational Rehabilitation and the U.S. Department of Education's Projects With Industry; and in Columbus, Ohio, in collaboration with the Ohio Rehabilitation Services Commission (ORSC), the Hilltop Community Development Corporation and Reynoldsburg Public Schools.

NAHB through HBI, has long worked with its State and local affiliates to target non-traditional populations to help address the industry's worker shortages. Many projects are still going strong thanks to the industry's commitment, and the commitment shared by the Federal and State Agencies and policymakers, who through their support make it all possible.

### **Postsecondary Schools Meet the President's High Growth Job Training Initiative**

In September 2004, the U.S. Department of Labor (DOL), under the President's High Growth Job Training Initiative, awarded HBI a \$4.2 million dollar grant to develop a new approach to building our Nation's construction workforce.

The program "Building Today's Workforce for Tomorrow," will be implemented at 10 sites over 3 years—the first four official grant partners are located in Florida, Idaho, South Carolina and Virginia. The sites will strive for virtually identical goals:

- Recruit 250 participants into the program;
  - Develop an Associate's Degree that combines craft skills training with academic credit;
  - Provide hands-on training in carpentry, electrical wiring, plumbing and HVAC;
- and
- Disseminate best practices and products nationwide to assist others in replication.

Students will be instructed using HBI's widely popular Residential Construction Academy Series textbooks and other instructional materials developed by HBI with noted publisher Thomson/Delmar Learning. I have brought an example of our teaching text with me today. The Series is based on the first set of trade skill standards developed by NAHB's members and educators following the guidelines outlined by the National Skills Standards Board.

Another element making this new project exciting is the level of collaboration among the various stakeholders. Facilitated by HBI, NAHB's local associations, community colleges, local schools and workforce development boards, the program will work to ensure that students receive a well rounded education and exit with the ability to find employment in the construction industry.

The \$4.2 million will be disbursed at each of the 10 sites over the next 3 years. Plans are to have the final six new sites start operation on December 1, 2005.

### **Building on Skills to Build America's Future**

In April of last year, the "Skills to Build America's Future" Initiative was launched as an outreach effort sponsored by the U.S. Department of Labor and industry partners to educate young people and workers in transition to the career opportunities available in the skilled trades. NAHB is a principal partner in this effort along with the Construction Industry Roundtable and the National Heavy & Highway Alliance and its seven international unions.

To build on this outreach initiative, HBI will soon be launching a similar effort to educate young people on the many career opportunities available in the residential construction industry. Beyond the traditional trades commonly associated with our industry, other "skilled" trades are also critical. The industry is in need of accountants, engineers, estimators, managers, schedulers and marketing people among many others. In all, there are more than 100 careers to choose from in residential construction. The building industry today more than ever, offers opportunities for people of all ages with every kind of aptitude and skill, to build a successful career.

To conclude, yes, the housing industry is booming and full of possibility. However, we must ensure that there are sufficient training programs to train the 1 million new workers and to build the 18 million new homes needed over the next decade. As a dramatic shortage of workers in our industry leads to fewer homes being built, NAHB is greatly concerned that the cost of housing will increase sharply, forcing thousands of Americans out of eligibility for a mortgage and hurting their ability to own a home.

NAHB and the Home Builders Institute work aggressively with all available resources to provide information, programming, and educational opportunities to those interested in starting a career in our industry. Each year, HBI partners successfully with government to help prepare the workforce for one of the Nation's fastest-growing and most dynamic industries. Together, through the joint efforts of NAHB, HBI and government, combined with the energy, focus and determination of thousands of young workers, we are helping to build America.

Thank you, Mr. Chairman, Ranking Member, and members of the committee for your time and interest in our efforts.

The CHAIRMAN. Welcome, all of you. Thanks for taking time out of your busy days to share with us. Your full statements will be a part of the record, and now we will hear from the panel. Ms. Erickson?

**STATEMENTS OF TAMARA J. ERICKSON, EXECUTIVE OFFICER,  
AND MEMBER, BOARD OF DIRECTORS, THE CONCOURS  
GROUP, WATERTOWN, MA; DIANA FURCHTGOTT-ROTH, DI-  
RECTOR, CENTER FOR EMPLOYMENT POLICY, THE HUDSON  
INSTITUTE, WASHINGTON, DC; AND JARED BERNSTEIN, DI-  
RECTOR, LIVING STANDARDS PROGRAM, ECONOMIC POLICY  
INSTITUTE, WASHINGTON, DC**

Ms. ERICKSON. Thank you, Mr. Chairman. I am deeply honored to be with you here today to discuss the 21st century workplace. Our research very much supports the points you made in your opening statement.

Senator, we in the American workforce are older, fussier, and busier than ever. At the core, reshaping the relationship between employees and employers is critically important. Today's workforce already experiences alarmingly low levels of engagement in work. Improving engagement—finding ways to encourage individuals to invest more psychic energy in work—is the single most powerful lever that most corporations have to improve productivity.

The 21st century workforce will be significantly different than the workforce of the past century. It will be chronologically older. Individuals over 55 will represent progressively larger proportions of the workforce—11 percent just 5 years ago in 2000, 20 percent 10 years from now in 2015, and nearly one-third by 2050.

Lacking key skills. The workforce will not have the optimum mix of talent needed by our industries. Many high-skill areas, such as engineering disciplines, are already approaching critical shortages.

Global. In part as a result of labor and talent shortages and in part to take advantage of cost arbitrage or market-based opportunities, offshoring of work will continue to grow.

Highly diverse. The U.S. workforce in the 21st century will be diverse in virtually every conventional dimension—race, gender, age, religion, and cultural identity. But even more significantly, it will be populated by individuals with widely different values and assumptions about work itself.

Profoundly disengaged from work. Many employees today are emotionally pulling away—detaching from work and depriving businesses of immeasurable energy, innovation, and drive. Our research indicates that only 20 percent of the U.S. workforce today is currently significantly engaged in their work. Improving engagement is probably the single most powerful lever that many corporations have to improve productivity today.

The problem? Corporations as we know them today are not ready. Hierarchical structures, rigid job designs, top-down decision-making, and, particularly, unilateral employment relationships are at odds with the values and needs of the 21st century working. Fortunately, over the last several years, significant advances in technology give us astonishing options for altering the way businesses operate. Soon their spread will make good on the promise of free, instant, and continuous communication. Ubiquitous connectivity, digital, virtual, personal, everywhere on everything and always on, will provide extraordinary opportunities for coordination and collaboration.

With this, we can make work environments more competitive and better for people at the same time. Over the next several dec-

ades, small firms will proliferate. Growth will emerge from lateral collaboration and bottoms-up creativity and innovation. Organizations will be able to conduct their governance processes in fundamentally different ways, with opinion polling, market-based mechanisms, and even democratic elections coming into the workplace.

As a result of these two forces, unprecedented demographic change, coupled with astonishing technology-driven options for how to run corporations, the nature of the relationship between employees and employers will change substantially. Retirement will be retired.

Now, I must say I feel like I am preaching to the choir on this one. Senators seem to be a particular group of people who already understand that the concept of retirement is outdated. But, actually, 34 percent of all U.S. workers say they never plan to retire. Today the average American can expect 20 or more years of active, healthy life after traditional retirement age. We need this talent, and we will adopt a more flexible view of work to coax more to stay. Career paths will be bell-shaped. Individuals will be able to continue to contribute to businesses into their 70s, 80s, and beyond. Counterintuitive entry points will be the norm. Individuals will begin entry-level jobs at multiple points throughout their lives.

Cyclical and project-based work will proliferate. Already 49 percent of the workers who want to work after traditional retirement say they would prefer cyclical work—3 months on, 3 months totally off—to part-time.

Job-sharing and other accommodations to blended lives will be widely available. Health will be a core value, and health care benefits will be the single unifying desire of the 21st century workforce. And, overall, work arrangements will be fair but not identical. Corporations will vary how individuals are compensated, managed, and matched with different tasks.

How we as a society choose to invest in the unprecedented pool of energy and capability that will be available in our older workforce will have a major impact on our productivity as a nation this century. Thank you for your leadership and foresight in preparing for this exciting future.

The CHAIRMAN. Thank you very much.

[The prepared statement of Ms. Erickson follows:]

PREPARED STATEMENT OF TAMARA J. ERICKSON

EXECUTIVE SUMMARY

The business challenge of the 21st Century is using the skills and capabilities of our workforce effectively. This will require new and more flexible approaches to the “deal” between employers and employees and new and more “democratic” forms of corporate organizations. Most importantly, it involves new assumptions about work and workers.

On the positive side, a rich pool of talent will be available. Although it won’t be the type of workforce we’ve come to rely on—unlimited numbers of eager youth—many highly skilled individuals will have the energy and desire to “work.” This century will usher in a new life stage: for the first time in human history, we will have a significant stage of non-child-rearing, productive adult life. Already today, by the time their children leave home, most adults will have 25 years more of active, healthy life. How we as a society choose to invest this unprecedented pool of energy and capability will have a major impact on our productivity as a nation in this century.

On the negative side, corporations as we know them today are not well aligned with the values of many individuals within this century's workforce. Hierarchical structures, rigid job designs, unilateral employment relationships, and cascading decisionmaking are at odds with the idealistic values of the Baby Boomer cohort and the independence of cohorts to follow. Our business organizations and employment policies face significant challenge to adapt to the needs and values of the new workforce.

At the core, reshaping the relationship between employees and employers is critically important. Today's workforce already experiences alarmingly low levels of engagement in work. **Improving engagement—finding ways to encourage individuals to invest more psychic energy in work—is the single most powerful lever that most corporations have to improve productivity.** After decades of downsizing, rightsizing, and re-engineering, most corporations have virtually exhausted their ability to squeeze increased productivity out of the system through top-down pressure. The opportunity today is to raise our engagement with work—to tap into the creativity and passion of the American workforce.

Creating higher engagement levels is all about recognizing individual strengths, needs, preferences, and values. Companies need to shift the human resource paradigm from a focus on “equality” played out by treating everyone the same, to “fair, but customized” reflecting different arrangements suited to individual needs and preferences.

Our landmark research has identified six archetypal relationships between employees and employers. Individuals reflected by these six segments differ in terms of the role that work plays in their lives and the type of work experience that is most likely to create high levels of engagement.

### The Changing Workforce

The 21st Century workforce will be significantly different than the workforce of the past century.

- **Chronologically older**—Individuals over 55 will represent progressively larger proportions of the workforce. We've just passed an important crossover point. After a steady decline in the proportion of older workers through the 1990s, the percent is now on the rise. The proportion of over-55 workers declined from 18 percent in 1970 to 11 percent in 2000. By 2015, this group will have rebounded to represent 20 percent. Fueled by ever-longer life spans and lower birth rates, older workers will continue to grow as a portion of the available labor pool throughout the century. We can't afford not to leverage this talent—our businesses will need both the numbers and, more importantly, the skills represented in this growing cohort. And, as our research shows, most mature employees are more satisfied and engaged, happier on the job and better adjusted to the workplace than average younger workers.

- **Limited in availability**—The workforce will grow slowly or decline in size in most developed markets. In the U.S., the workforce is forecast to grow by only a fraction of a percentage point a year for most of the first half of the century. The total working age population will grow at 2–3 percent per decade from now through 2030 and then increase to 3–4 percent per decade through 2050—still only a fraction of a percent per year. By comparison, the rates have been 12–15 percent per decade for most of the second half of the 20th Century. Industrial growth will be constrained by the availability of labor if we continue to operate in a 20th Century model.

- **Lacking key skills required to align with business needs**—The workforce will not have the optimum mix of talent needed by our industries. There will be shortages of many key skill sets, and excesses of other less-strategic capabilities. Many high skill areas, such as engineering disciplines, are already approaching critical shortages. For example, the average age of petroleum engineers in the U.S. is approaching 54, while many of the oil companies still have lucrative early retirement programs that will allow these scarce resources to leave the workforce at 55. We are on the brink of critical shortages in a number of key skill areas, assuming retirement approaches remain unchanged.

- **Global**—In part as a result of labor and talent shortages and in part to take advantage of cost arbitrage or market-based opportunities, off shoring or “smart shoring” of work will continue to grow. By mid-century, most corporations will operate as connected communities, with amorphous corporate boundaries encompassing a wide variety of partners and contractor relationships. Regional “hot spots” will form around the world—nodes of connectivity, talent, and infrastructure.

- **Physically dispersed**—Even within one geographic location, work will increasingly be done anywhere, anytime, rather than in fixed locations on 9 to 5 schedules. Managing the workforce will become more and more analogous to the challenge of

managing customers—developing relationships and maintaining active connections will be key.

- **Wrestling with complex lives**—Away from work, nearly half of employees today wrestle with parenting responsibilities, and more than one-fourth struggle with personal or family health issues. Two-thirds say they are coping with financial crises or trying to reduce their debt. As life spans increase, the complexity of individual lives will only increase. Balancing the needs of multiple generations and competing priorities will continue to grow as a challenge.

- **Inventing a new life stage**—As a result of increasing health and longevity, most individuals will experience a new life stage—a prolonged period of time after primary parenting duties are fulfilled but before they will look, feel, or act “old.” This 20–30 year period, unprecedented in history, will offer exciting opportunities for creation and contribution.

- **Highly diverse**—The U.S. workforce in the 21st Century will be diverse in virtually every conventional dimension—race, gender, age, religion and cultural identity. However, our research has found no significant differences by these conventional measures of diversity in terms of overall job satisfaction, satisfaction with one’s immediate manager, or engagement level. Nor are there any significant differences in how people relate to work or the workplace conditions that bring out the best in employees. Yet the workforce is populated by individuals with widely differing values and assumptions about work itself. These divergent attitudes toward work will be the most important forms of workplace diversity this century, challenging employers to find innovative ways to understand and respond to disparate needs.

- **Profoundly disengaged from “work”**—Many employees today are searching for “more” than they are able to draw from their work experience. Mid-life’s pivotal point today is more-often-than-not a reflection on the impact of one’s life on the world. As employees reach whatever milestone triggers a sense of middle age, more and more are reprioritizing to live up to the idealistic values formed as youth. Increasingly, employees are asking whether the paths they have taken are indeed consistent with the values they formed earlier in life. Coupled with a general disillusionment with corporate life, many workers are emotionally pulling away—detaching from work, and depriving businesses of immeasurable energy, innovation, and drive. **Our research indicates that only 20 percent of the U.S. workforce is currently significantly engaged in work.**

These workforce trends represent a major challenge for U.S. corporations—and a major opportunity. Our research provides compelling evidence that meeting the evolving needs of employees effectively will result in significantly higher engagement and, as a result, higher productivity and bottom-line financial results.

### **Technology, Corporations, and the Nature of Work**

While the characteristics of the workforce are changing, so too are significant advances in technology driving the way our businesses operate. These advances will both reinforce and enable the desires of individual workers, allowing greater personal flexibility, autonomy and participation and, as a result, increased corporate productivity.

- **Free and instant coordination**—Technologies including service-oriented web architecture, radio frequency identification chips, and sensor nodes will provide extraordinary opportunities for coordination and collaboration. Soon, smart objects, intelligent sensors and ubiquitous connectivity will be everywhere, on everything, and “always on.” Instead of processing data, businesses will be based on processing information about events in real time. Instead of waiting for operator input, sensor networks will respond directly to their environment.

- **Highly efficient markets**—The pressure on corporations for increased levels of productivity will be unrelenting. The easy availability of inexpensive coordination technology will make the relationship between business and consumers much more efficient. More efficient markets will threaten any firm whose business model embraces inefficiencies. Consumers will find it easier to collect information, compare prices, and select multiple providers based on the core competencies of each.

- **True participative decisionmaking**—Technology will allow organizations to conduct their governance processes in fundamentally different ways—ways that are more compatible with the values and preferences of this century’s workforce. Over the next several decades, hierarchy will give way to lateral communication among relatively autonomous, entrepreneurial groups. As it becomes both economically and logistically feasible to obtain input from a large number of people, opinion polling and even democratic elections will come into the workplace. Market-based mechanisms allowing individuals to make their own mutual agreements, as contractors

and freelancers around specific projects, will be commonplace within several decades.

- **A plethora of small, highly focused firms**—Networked technology facilitates the unbundling of integrated corporations, leading to more focused companies. Smaller firms, specialized around core competencies, will proliferate this century. Coordination-intensive, networked organizational structures will allow firms to adjust continuously to changing requirements for different combinations of skills and resources.

- **Strategies based on agile experimentation**—Top-down direction and annual strategic planning cycles will be replaced by rapid waves of near-term experimental initiatives, brought into focus by a shared view of a company’s long-term strategic direction. Growth will emerge from the creativity and innovation that comes from a shift in control: top down to bottoms up—driven by engaged employees, partners, and even customers.

The nature of work in this century will be both driven by and responsive to the desires of the evolving workforce. Smaller organizations and more flexible, participative processes reflect core values and preferences of the coming cohorts of employees. At the same time, the need to create a highly engaged network of diverse talent will become critically important to meeting the agile operating styles required for the 21st Century corporation.

### The New Relationship Between Corporations and Employees

As a result of changes in the people who comprise our workforce and of the technology that enables our work, the nature of the relationship between individuals, the work they do, and the companies that they form will change substantially during this century.

- **The end of “retirement” as we know it**—Retirement is a modern social experiment and our parents were the guinea pigs. For almost all of history, until the early 1900s, people worked until they died. Today, the average American retires at 62—and, with rising life expectancies, can expect 20 or more years of active life. Over this century, we will retire the concept of “retirement” as we know it today—to be replaced by a more flexible view of work, intermingled with periods of leisure throughout all of adulthood. Already, **34 percent of all U.S. workers say they never** plan to retire. Our research shows that the better educated the employee, the more likely he or she is to want to work in retirement.

- **Bell-shaped-curve career paths**—Rather than the cliff-shaped career paths of the past century—individuals on an ever-upward path toward ever-greater “success”—21st Century careers will be bell-shaped. A career deceleration phase in one’s 50’s through 80’s will parallel the career development phase of one’s 20’s through 40’s. After achieving peak levels of responsibility in one’s mid-career, individuals will be able to continue to contribute to businesses in legitimate, respected, although less intense ways.

- **Counterintuitive hiring options**—Individuals will enter into new careers at multiple points throughout their lives. Older workers will accept “entry” level jobs, as ways into new lines of work or flexible options suited to a preferred lifestyle.

- **Flexible work arrangements**—Going forward, more flexible work arrangements are both necessary and possible. Corporations will provide personal variability around how individuals are compensated, managed, and matched with different types of tasks.

- **Cyclical or project-based**—Project-based work will become the norm—many workers will operate as “intellectual mercenaries” assembled by project over the Web, as needed. Already, 49 percent of U.S. workers who plan to work during traditional retirement years say that they would prefer cyclical arrangements—periods of full-time work interspersed with periods of no work—over more conventional part-time.

- **Small firm employment**—Those employees who do affiliate with a single corporation will be increasingly likely to be employed by small firms. Small firms will become more prevalent over the century based on changes in technology. They also tend to be more attractive to employees. Today, small firms on average have 2½ times more highly engaged workers than do large corporations (32 percent versus 13 percent). Although large employers offer significantly more benefits, they get less engagement in return.

- **Virtual work**—More workers will work from home or other flexible locations as technology continues to enable remote and mobile work and workers who are accustomed to interacting through technology become a dominant presence in the workforce. Today, almost three-quarters of the U.S. workforce still work at a fixed location. However, this percent will decline over the century as a confluence of technological enablement, employee preference, and corporate cost pressures drive orga-

nizations to seek ways to shift away from “bricks and mortar” and associated overhead.

- **Personal technology**—Young workers entering the workforce today “own” their own technology—it is as much a part of their personal being as wallets are to their parents. Soon the concept of corporations supplying computers or cell phones will be as outdated as the clothing allowances of the 1950s or company calculators of the 1970s. All tomorrow’s employees will ask is that business “beams them in.” Security will be replaced by selection as a core concern, since hiring ethical individuals will be more effective than trying to control access in an increasingly ubiquitous world.

- **Job sharing and other accommodations to blended lives**—Each for somewhat different reasons, today’s worker cohorts are less willing to devote all of their life’s passion to “work.” Baby Boomers want to devote a part of their energies to idealistic goals. Younger cohorts have an inherent reluctance for institutional affiliation, and a tendency to prefer independent relationships. Workers in this century will be increasingly articulate in demanding work relationships with corporations that allow them to retain the degree of control and flexibility required to pursue other activities equally successfully.

- **Growing expectations for broad-based participation**—The new workforce will increasingly expect to participate in the business in new ways, including democratic or market-based decisionmaking processes and hands-on ability to experiment with new strategies and the creation of products and services.

- **Fundamentally different patterns of personal learning and corporate growth**—The manner in which today’s younger workers have learned to learn is radically different from their parents’ approach. Rather than linear learning from authoritative sources, younger workers tend to learn through a process termed “bricolage”—pulling pieces of information from a variety of sources and piecing them together. This experimental learning approach, coupled with technology’s increasing micro-interactions and perfect recall—will carry over into the way work gets done. Workers will move from episodic interactions to persistent experiences.

- **Health as a core value**—Health will continue to be a growing touchstone for decisions in the home, workplace and community. In the U.S., health care benefits will be the single unifying desire of the 21st Century workforce. Among more detailed elements of the deal, health care coverage is employees’ top priority today by far, with half again the preference accorded any other element. Our work identified individuals who are working today *only* to receive health care benefits.

- **Fair, but not equal**—Customized “deals” will be the norm—fair, but not equal. Many human resource practices over the past decades have been aimed at ensuring that all employees are treated “equally.” In fact, as our research convincingly demonstrates, although fairness is important, people don’t want to be treated the *same*. The reasons people work, their sources of pleasure or satisfaction, and the returns that they most appreciate differ quite significantly. Understanding and responding to these differences is at the heart of creating an engaged workforce.

The key to productivity is going forward is recognizing the variety of reasons that people work—the different roles of work in our lives—and shaping the employee/employer relationship in ways that appropriately reflect this diversity.

Our work has identified six fundamentally different archetypes of the relationship with work found within the workforce. The six segments have distinct traits and preferences regarding work and its role in their lives. There are significant differences in the levels of engagement within each segment. And there is a significant correlation between the extent to which employee preferences are met and their engagement levels. Understanding and responding to these segments represents the foundation for improving engagement.

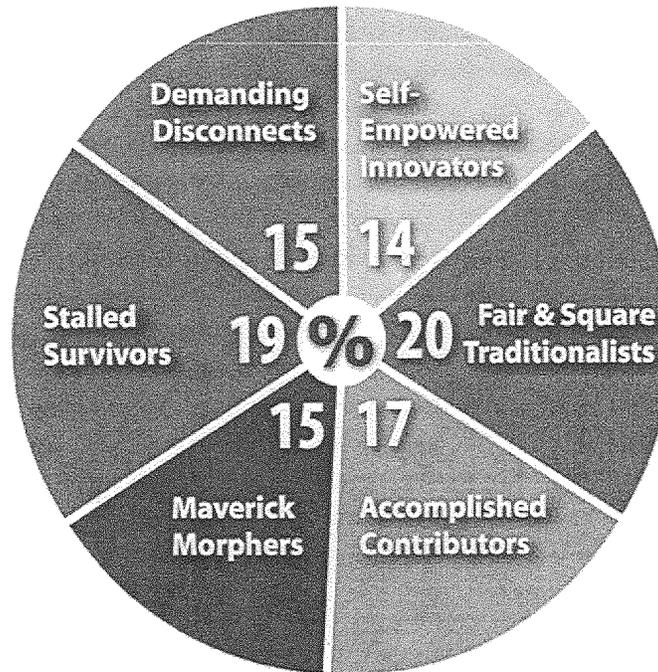
### **The Employer/Employee Equation Segmentation Model**

Today’s workforce is made up of six employee segments, each with a different set of drivers—ranging from the straightforward and immediate need for money, to the longer-term desire to build a lasting legacy for the future. Our proprietary segmentation model recognizes the different role that work plays in people’s lives. Employees in each of these segments want different things from their work experience and are engaged by a different set of employee “deal” elements.

Importantly, our work has shown that average engagement levels vary from segment to segment. For example, in general, people who view work solely or primarily as a source of money have the lowest levels of engagement. Those who view the role of work in their lives as a mechanism for meeting social needs or creating a lasting legacy, have significantly higher levels of engagement. One bottom-line conclusion from our research is that more money does not, by itself, produce higher engagement levels. Even more significantly, our work has found that the *reasons* why peo-

ple are more or less engaged vary by segment and has identified which factors are most important to each type of employee.

These results are significant and very encouraging. Just as with the segmentation of consumer markets, employers can understand the segment distribution in their workforces. They can target segments that are best suited to the nature of the work within their business and shape powerful employer brands to attract the desired talent. They can then adjust work situations and elements of the employment deal to meet the needs and expectations of key segments so as to bring out the best in terms of engagement and therefore performance.



The six segments are introduced below, starting with the group with the highest average engagement level and ending with the lowest.

**Self-Empowered Innovators** represent individuals for whom work is about building something with lasting value. Workers in this segment are entrepreneurial, hard-working, creative, well-educated and self-empowered. They are an organization's most engaged group of employees. They consider themselves leaders and have frequently assumed the role of senior-level manager, with many self-employed or heading their own companies. For them, work is a source of great personal satisfaction. They are the most likely to define success as being true to themselves, and agree that a good deal of their pride comes from their work and careers. They are the most likely of all employees to say they are impassioned and energized by their work, and that time passes quickly on the job. Half say they will never retire. Individuals in this segment are not highly motivated by traditional rewards, such as additional compensation, vacation time, or even a better benefits package. Instead, they are looking for work that continues to empower and stimulate them, enables them to continue to learn and grow, and has a greater social purpose.

For **Fair & Square Traditionalists** work is about the American dream—a steady, predictable path to success. These individuals are highly reliable and loyal workers seeking traditional rewards. They got where they are by putting their noses to the grindstone, working hard, and being team players. In return, they want to be fairly rewarded for their efforts through concrete, traditional compensation like good benefits and a solid retirement package. The group is slightly below average in terms of education but above average in household income. They are pleased with their success, and often describe themselves as family men and women, high achievers, and leaders among their peers. They have less interest in “softer” work benefits like stimulating work, enjoyable workplaces, work that is worthwhile to society, or

even flexible work arrangements. And they are the least drawn to riskier compensation like stock or bonuses. They seek stable and secure environments, have the longest average tenure with their employers, and have the second highest engagement level among the six segments.

**Accomplished Contributors** view work as an opportunity to be part of a winning team. These individuals are engaged by their work and by contributing to the organization's success. They take pride in what they do, are willing to put in extra effort, value teamwork, and seek an atmosphere that is cooperative and stimulating. To them, "contribution" is the name of the game, and they like to do work that is worthwhile to society. This group is loyal, hard-working, reliable, capable, and typically very experienced. They place less value than most others do on individualistic rewards such as more money or vacation, and express less need for flexible work arrangements. Instead, they place strong emphasis on work that is personally stimulating, work environments that are congenial and fun, colleagues who cooperate, and employers who provide stability and job security.

**Maverick Morphers** seek lives filled with change and adventure—work is one of multiple opportunities to achieve these goals. These individuals tend to be well-educated, successful, and restless. They thrive on exciting work and personal success. They're not afraid to take chances, try new things, and shape the rules to fit their lifestyles. Frequently working for smaller organizations or self-employed, they are often senior-level managers, despite their relative youth. Growth and opportunity and variety are what drive them, and they value organizations where they can work with other bright people and do work that is inherently worthwhile. They own their careers and pioneer new ways of working. They are the most likely to want flexible workplaces and work schedules that enable them to work on their own terms and pursue their own interests. Confident in their abilities, they are the most likely to seek out bonus compensation and stock to reward their accomplishments. Organizations need to work hard to retain them, as they actively explore their career options and their tenures with employers on average are brief.

For **Stalled Survivors**, work is a source of livelihood but not yet (or not currently) a very satisfying part of their lives. For a variety of possible reasons, work for these individuals is largely "on hold." The youngest workforce segment, many are just starting off in their careers, getting married, having children, or pursuing interests outside of work. They are busy trying to balance their lives—personally, financially, and emotionally. They tend to feel that they are pulled in too many directions, and often describe themselves as stressed out from their many obligations. At this time in their careers, they are looking for employers who can make it a little easier to cope. They frequently seek out an improved work/life balance through more flexible work arrangements, and they value additional pay and vacation and family benefits such as childcare and maternity/paternity leave. They also value employers who offer environments that are more congenial and fun. They likely view their current challenges as a temporary phase, and many are seeking new roles and positions at work that will enable them to get more in control of both their careers and lives.

**Demanding Disconnects** view work as generally frustrating and see its value largely in terms of near-term economic gain. They derive the least satisfaction from their employment and return the least commitment to their employers. Although they wish for stability, security, and greater recognition and reward, many are frustrated by the nature of their work, lack of opportunity, or perceived unfairness in their employment arrangements. Some are simply disgruntled. Many feel dead-ended—that they have gotten as much as possible out of their current positions and want to move on. They admit they are not high achievers or leaders. Most feel that their organizations do not bring out the best in them. Some are struggling with low income, more focused on making ends meet than on deriving personal fulfillment from their work. They expect a lot in return for their labor and place high value on traditional compensation and benefits packages, while expressing less interest than other segments in work that is enjoyable, personally stimulating, or worthwhile to society. We believe some could be more highly engaged with different work designs.

This groundbreaking segmentation offers specific insight into how best to engage each group in the evolving workforce. There's simply too much potential energy, commitment, and productivity going to waste not to consider a fundamentally new relationship between employees and employers.

### **Why Engagement Matters**

Informed by our comprehensive body of research, several things are clear about engagement in the 21st Century workplace:

- Engaged workers are more productive and contribute positively to financial success. For many companies, improving engagement is undoubtedly one of the single most powerful levers available to improve productivity.

- Today, low engagement represents a major opportunity for improvement across corporate America. If not addressed, low engagement will be a growing limitation for most corporations—hindering a business' ability to operate effectively in 21st Century conditions.

- Different people are “engaged” by different things. Not everyone wants the same things from work.

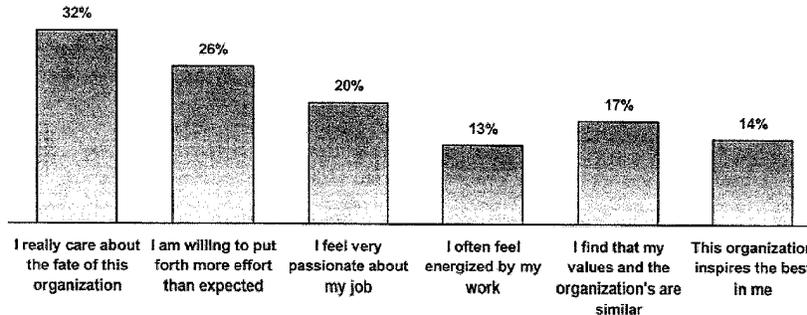
- Customization of the employee experience broadly—including the nature of the work itself, management style, as well as components of compensation—is possible, practical, and the key to improving engagement.

A truly engaged employee expends discretionary effort to help accomplish the goals of the enterprise. The engaged employee is excited by the work, spreads that excitement to others, and is committed to both personal accomplishment and group success. The engaged employee is motivated to go “above and beyond” what the job requires.

Engagement is above and beyond simple satisfaction with the employment arrangements or basic loyalty to the employer—characteristics that most companies have measured for many years. Although satisfaction and engagement often trend together, they're different phenomena arising from different sources. Satisfaction is about sufficiency—enough pay, benefits, and flexibility to work and live, and no major problems or sense of unfair treatment to sour one's attitude toward the employer. Satisfaction is the cost of entry into the business environment of the future.

Engagement, in contrast, is about passion and commitment—the willingness to invest oneself and expend one's discretionary effort to help the employer succeed. For engaged employees, time passes quickly; they identify with the task at hand, resist distractions, spread their enthusiasm to others, and care deeply about the result.

Today, neither satisfaction nor engagement levels are high among American workers. A slight majority of employees tell us that they're somewhat satisfied with their jobs. But only 20 percent are really engaged. The components of engagement present a dismaying pattern American workers feeling disengaged from their work.



A growing body of research unequivocally demonstrates the strong correlation between employee engagement and tangible results, including customer satisfaction, productivity, profitability, and shareholder return. Engaged employees are simply good for business. The costs of low engagement are difficult to calculate but must be enormous. They add up day-by-day and employee-by-employee as people do the minimum necessary to get by and withhold the discretionary behaviors—insight, originality, judgment, humor, leadership, friendship—that can make for a high-performance organization.

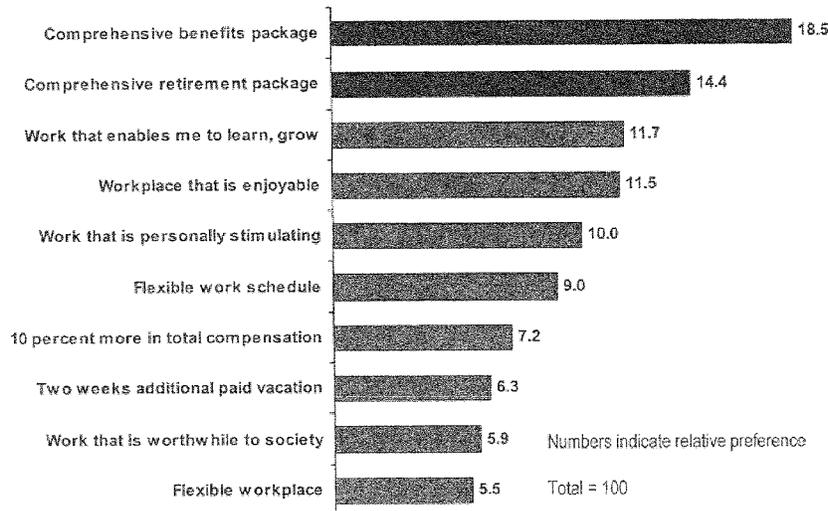
### **Making Work More Engaging**

Why are employees not enjoying their work more? Why are only 20 percent genuinely engaged in their work and committed to their employers? Why do well under 50 percent say that their work includes collaboration with bright and experienced people, provides opportunities to learn and grow, or that it is worthwhile to society? Why do fewer than 50 percent say their workplace is congenial and fun, that employees cooperate and teamwork is the rule, or that people are respected for their abilities and given ample chance to exercise them? Why are one in five looking for a major career change, and one in five looking for a new job? Why do 42 percent say they experience feelings of burnout? Why do more employees (33 percent) feel

that they're at dead ends in their jobs than say they're working on exciting new projects or assignments (28 percent)?

Low engagement levels demonstrate that for most employees the current “deal” isn't working well. Our research shows that employers place too much emphasis on compensation and benefits and the tangible elements of the employment relationship, and too little emphasis on the heart of the deal—the human relationships, values, and work design itself and what the integrated experience of all these factors does for the heart and soul of the employee. Is the employee experience inherently stimulating and meaningful?

Employers chronically underestimate the fundamental importance to employees of stimulating work, and very few employers have a realistic sense of how many employees feel dead-ended and why. In fact, employees place extremely high value on work and workplace. When our nationwide survey had employees state their relative preference for 10 basic elements of the employment deal, the security items—comprehensive benefits package and comprehensive retirement package—topped the list. But the next three items were all about work and workplace: work that enables me to learn, grow and try new things; workplace that is enjoyable; and work that is personally stimulating. The most innovative and accomplished and already-engaged employees value work and workplace the highest, often above the security items.



A successful employee experience starts with the job itself—work that is inherently meaningful and interesting *to each employee*, work that enables individuals to exercise their personal capabilities and strengths. People who love their work invest more of themselves in their jobs, perform better, improve more, and stay longer. Putting aside specific skills and educational accomplishment, the best employees—those that businesses most want to keep—are those who enjoy performing. They like to accomplish their work, and along the way they like to learn, teach, improve, invent and serve.

Unfortunately, work seems more likely to be enervating, rather than energizing, for most workers today. Driven by the quest for cost control and efficiency, many employers still err on the side of designing work processes too much around the output and too little around the worker. Employers err on the side of demanding scripted or repetitive action by workers, rather than asking workers to engage their energies and their brains. And the result is robotic performance and high turnover. Some people will stay in jobs despite the inherently uninteresting and unenjoyable work. They may be dependent on the compensation and benefits, unconfident in their chances of finding better work elsewhere, or just hanging on until retirement. Such people may stay with an employer, but they're not engaged, not giving their all, and so the organization performs below potential.

Most of us probably know from experience or can imagine what unexciting work feels like—repetitive, tedious, no variety, no learning, no visible result, no connection to what you do best. We also know that exciting work has the opposite charac-

teristics. Nevertheless, does everyone want work to be highly stimulating, variable, challenging? To some degree, yes. Granted, people vary greatly in their preference or tolerance for pace, pressure, ambiguity, and variation from the norm. Many people prefer routine and many jobs provide it, but “routine” doesn’t have to mean boring, unvarying, or unchallenging.

Good work design has the right mix of human skill and flexible options with automation and standardization, bringing out the best in both. It’s far better to enrich jobs and enable people to use their skills than to render work routine and treat people as cogs in the wheel of automation. Enriching work is how you engage people’s intellect, energy, effort, and commitment. The fundamental idea of this century is not to take people out of the equation, but rather to get more out of technology *and* more out of people. Unlike the late 1980s and early 1990s, when the people side of process redesign went largely ignored in the headlong rush toward computer systems installation and corporate downsizing (which often backfired when too few people were left to do the same old work), today there is an opportunity to combine flexible technology with engaged employees and create the work of the future.

The quality of management—the ability of managers to connect with individual employees in meaningful ways—is a critically important element of the employee experience. Unfortunately, the performance of managers today is perceived as poor: only 36 percent of employees say they are satisfied with the support and guidance received from their direct managers. Opinions of top management are lower still, and most employees do not trust the top management of their organizations. Only 17 percent strongly agree that “top management displays integrity and morality” and only 13 percent believe that “top management is committed to advancing the skills of our employees.” Previous research has found a strong correlation between engagement and “good” management. Our hypothesis is that the inherent definition of “good” reflected in these studies is the ability of one individual to understand and relate effectively to the unique needs and preferences of another.

Customization counts. It is unequivocally clear that different people want different things in return for their work. Paradoxically, corporations that offer everything to everyone—typically our largest firms—are also the ones that tend to have the lowest levels of engagement. By creating more focused and individually-specific “deals”—ways of compensating employees for the work they do, companies can heighten engagement—and potentially save money, as well. Compensation approaches need to blend the appropriate mix for the firm’s targeted segments, ranging from tangible economic returns to psychosocial benefits such as a sense of building something meaningful or simply fun or adventure, and from long-term rewards such as pensions and a lasting legacy to short-term necessities of salary and health care benefits.

Finally, the overall values of the corporation—the philosophy of senior management and the messages they send—must be internally consistent with the other elements of work, and clearly communicated to current and prospective employees.

Our work found a number of very encouraging examples of firms with high levels of employee engagement. Interestingly however, there was almost no consistency among these firms around specific practices—each firm seemed to have very different human resource approaches. What these firms did have in common was alignment—every element of their employees’ experience was internally consistent and aligned one with the other—and geared to appeal to a specific slice(s) of the workforce.

Bottom line, what must U.S. companies do for success in this century? Focus on people.

Going forward, companies must put the same energy into optimizing the relationships with and within the workforce as they have invested in optimizing processes and technologies in the 20th Century. By all means, companies must continue to employ technology to its fullest potential, ensuring that every member of the corporation, from the Board of Directors to entry-level employees, has the skill to employ technology comfortably and appropriately. But this century will be about something fundamentally different—rather than standardizing work and work relationships, the 21st Century will both require and allow greater variation. Having people do what each individual is good at—collaborating, understanding variable and complex information, and putting their intelligence, creativity and social skills to work, is now the key. Aligning all the elements of the employee experience—everything that touches or influences the workforce, including the style of management, the nature of the job, forms of compensation, and even the fundamental messages and philosophies of the firm’s leadership team—with each other and with the preferences of targeted employees, is at the core of creating a highly engaged and productive workforce.

That is—or should be—the promise of the 21st Century workplace.

### **Our Underlying Research: A Comprehensive Study of the Workforce**

Our conclusions are based on three major research studies related to the evolving workforce, stretching over a 3-year period. These projects encompassed hundreds of individual interviews and focus groups, as well as a comprehensive and statistically-valid survey of the U.S. workforce. This work has yielded an unprecedented understanding of what employees want from work and how corporations can create the “ideal deal.”

Our initial project, *Demography is De\$tiny*, examined the impact of demographic trends on the workforce and assessed the key values that each generational cohort brings to the workplace. One of the major conclusions of this research was that low engagement is a major—and growing—issue facing corporations, especially among the Baby Boom generation, who, as they enter their 40s and 50s, are increasingly beginning to question the role of work in their lives. This work also found that the workforce is increasingly diverse—not only in terms of gender and ethnicity, but also in age and generation, background and experience, lifestage and lifestyle, and what people need and want in the employment relationship.

*Excelling at Employee Engagement* identified leading practices for increasing engagement from dozens of firms in the U.S., Canada and Europe. A principal conclusion from that research was that customization of the workplace experience for each individual lies at the heart of engagement success. This research also revealed the link between engagement and various measures of business success; anecdotal evidence, for example, suggests that there is a powerful link between engagement and productivity. We also found influences on many “softer” performance variables, such as innovation and resilience.

*The New Employee/Employer Equation (Project EEE)* is a groundbreaking research effort undertaken jointly by The Concours Group and Age Wave, with the assistance of Harris Interactive, to develop a deeper understanding and superior segmentation of the American workforce. It was conducted in 2004 and sponsored by a consortium of 24 major organizations. This work developed a powerful proprietary approach to segmentation of the workforce. Our research confirmed the importance of employee “fit” and how the right employee “deal” can enhance engagement for each segment.

The nationwide survey of employees at the heart of *Project EEE* was one of the most ambitious attempts ever to understand the American workforce. Our scope included (1) the psycho-demographic characteristics of each individual, (2) current levels of engagement, and (3) preference and satisfaction with elements of the employment deal. Interviews were conducted online June 2–16, 2004, with 7,718 adult employees who work 30 hours per week or more for a primary employer. Results were weighted to ensure that the data accurately represent the U.S. adult workforce (those working 30+ hours per week). Figures for age, sex, race, education and income were weighted where necessary to bring them into line with their actual proportions in the working population. “Propensity score” weighting was also used to adjust for respondents’ propensity to be online.

Although specific projections are my own, this testimony is based on extensive collaboration with numerous colleagues at The Concours Group, particularly Robert F. Morison, Executive Vice President and our firm’s Director of Research, as well as with Ken Dychtwald, Ph.D., one of the world’s leading demographers and founder of the firm Age Wave. The research was sponsored by 24 of the world’s leading corporations.

The CHAIRMAN. Ms. Furchtgott-Roth?

Ms. FURCHTGOTT-ROTH. Mr. Chairman, I am extremely honored to testify before your committee today on the challenges of the 21st century workforce.

America’s dynamic workforce has always faced changes. Americans once worked primarily in agriculture, and then in manufacturing, and now in services. Transitions from declining to growing industries have been relatively easily achieved because of the flexibility of the U.S. economy and U.S. labor markets. As a result, the United States has one of the lowest unemployment rates, as you can see from Figure 1, in the industrialized world, and one of the highest rates of job creation. We are home to millions of entrepreneurs.

As we move further into the 21st century, challenges will come in the aging of our workforce and increased global competitiveness.

We need to consider the best strategies for promoting the flexibility of our labor markets to deal with them.

The consumption demand of an aging and increasing population could lead to tight labor markets unless we have high productivity growth, increased labor force participation, and additional immigration. In America's dynamic and flexible economy, we already see two of these forces—higher productivity growth and increased labor force participation of older Americans—all working to help offset the demographic changes that are underway.

Fortunately for the United States, the labor force participation of older Americans is increasing. A higher percentage of older Americans work than do senior citizens of many industrialized countries. In Figure 2 over here, we can see that 14 percent of Americans 65 and older remain economically active, a figure in major industrialized countries only exceeded by Japan. In France, Italy, Germany, Canada, and Australia, the percentage ranges from 1 to 7 percent.

One noteworthy trend has been toward a higher proportion of older workers working full-time. This may be a result of the removal of the Social Security earnings test for workers age 65 and older in 2000. In 2004, on average, 77 percent of workers age 55 or older worked full-time. Figure 3 shows that the labor force participation rate of older Americans has increased steadily over time, reaching a high of 37 percent in April 2005.

Some may say that older Americans have to work more because they are less well off, but data show the opposite. The economic conditions of older Americans is above average and steadily improving.

The flexibility of U.S. labor markets enables older workers to choose the pattern of labor force participation that best fits their needs. The removal of Social Security earnings tests ensures incentives to remain in the labor force. And income tax reductions since 2001 have increased the incentive for everyone to remain economically active.

But the flexibility and range of choices needs to be further increased, not just for older Americans but for everyone. Removing restrictions that prevent private sector workers from having the choice of comp time or overtime pay for overtime hours worked would provide additional flexibility that would make it easier for all Americans to participate in the labor force. Currently, only products workers who work overtime hours are allowed to take comp time off instead of overtime pay. Under the Fair Labor Standards Act, private sector workers are not given this option.

Let me give you an example of how this could work for a senior citizen. Say that a grandmother worked 50 hours rather than 40 hours 1 week and wanted to take some time off to see her grandchildren rather than receiving overtime pay. A choice of 1½ hours of comp time instead of 1½ hours of pay would allow her to do that. She might want to catch up on errands or catch up on sleep. This would also encourage other groups such as working mothers to enter the workforce. As a working mother with six children, I am fully aware that there are many important parts of a worker's life, including time with family. Extra time spent 1 week is manageable if there is an option to take more time off at another point.

Global competitiveness is the second major challenge for the American economy. It is here to stay, and we need to face it head on rather than hiding from discussions of outsourcing. Yes, it is estimated that U.S. firms outsource about 300,000 jobs a year, but foreign companies employ directly at least 6 million workers in the United States, and indirectly provide another 6 million more jobs.

Increased global competitiveness is just another reason for keeping our labor markets flexible and trying to extend that flexibility.

Figure 4 shows an index of labor market flexibility measures for the G-7 countries, and it shows that the United States has the lowest amount of employer mandates governing the hiring and firing of workers. And this is associated with a vibrant labor market that benefits American workers.

In Figure 5, we can see that not only are a higher proportion of Americans employed, but those Americans work longer hours every year than do their counterparts in other countries. In 2003, data show that Americans worked on average 1,792 hours per year, far more than in Canada, the U.K., Italy, France, and Germany.

One reason they do this is that lower tax rates permit them to keep more of what they earn. Figure 6 shows a comparison of labor costs paid in Social Security and income taxes for the G-7 countries in 2004. An average American would pay 30 percent of his salary in taxes compared with 31 percent for a British worker, 32 for Canadian, 46 percent for the Italian, 47 percent for the Frenchman, and 51 percent for the German. Only the Japanese work is taxed less and, not surprisingly, worked more hours than his American counterpart.

We saw that Americans have lower unemployment rates than do other countries, and in Figure 7 we can see that when they are unemployed, they find jobs faster. Only 12 percent of the unemployed in the United States are unemployed for more than a year, compared with 33 percent for Japan, 34 percent for France, 50 for Germany, and 58 percent for Italy. So in Italy, of everybody unemployed, 58 percent have been unemployed for more than a year.

One impossible challenge, as you point out, Mr. Chairman, is figuring out what technology is going to be 10 years from now. As you said, we could not imagine what technology we have now. We do not know where our technology is going to lead us in 2015 or 2025. But we do know that our employers are going to need to adapt to whatever comes along, and we need to give them the tools to do so. We also need to protect the intellectual property of our investors and our entrepreneurs and our inventors and not allow other countries to pirate our ideas. The United States leads the world in creativity, and we need to protect our intellectual property.

In conclusion, just as we now have more flexible labor markets than our major competitors, we need to expand that flexibility as we move forward into the 21st century. We need to make our workforce more attractive by giving everyone the option of comp time instead of overtime. We need to lower taxes rather than raising them. We need to decrease mandates rather than increasing them.

Thank you for giving me the opportunity to appear here today.

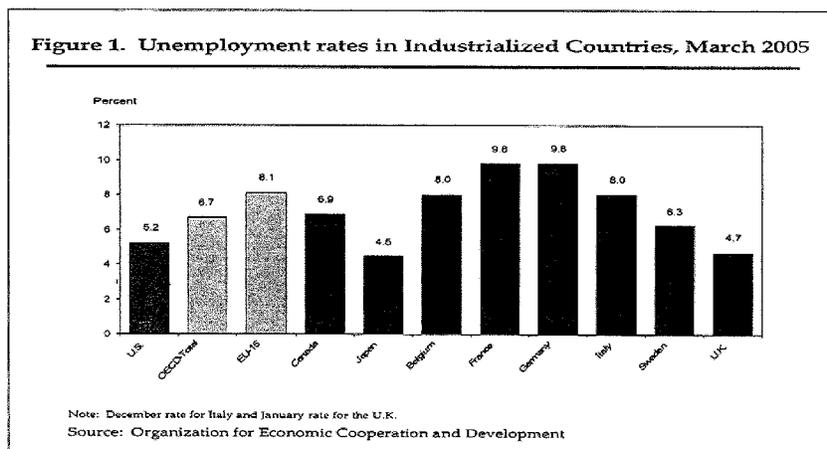
The CHAIRMAN. Thank you very much.

[The prepared statement of Ms. Furchtgott-Roth follows:]

## PREPARED STATEMENT OF DIANA FURCHTGOTT-ROTH

Mr. Chairman, members of the committee, I am honored to testify before your committee today on the subject of the challenges of the 21st century workforce.

America's dynamic workforce has always faced changes. Americans once worked primarily in agriculture, then in manufacturing, and now in services. Transition from declining to growing industries has been relatively easily achieved because of the flexibility of the U.S. economy and U.S. labor markets. As a result, the United States has one of the lowest unemployment rates (see Figure 1) and one of the highest rates of job creation in the industrialized world. We are home to millions of entrepreneurs.



As we move further into the 21st century, challenges will come from many fronts. Two specific issues are the aging of our workforce and increased global competitiveness, and these are the subject of my testimony today. These phenomena will be with us over the next few decades and we need to consider the best strategies for promoting the flexibility of our labor markets to deal with them. Today I will talk about some consequences of each of these changes.

#### America's Aging Workforce

As the large "Baby Boom" generation of Americans ages, the demographic structure of the economy will shift and the proportion of Americans over age 55 will increase significantly. In addition to the aging of the "Baby Boom" generation, increases in longevity will raise the proportion of older Americans.

Today the estimated U.S. population aged 55 or over is 67 million, equaling 20 percent of the total population. This group is expected to grow to 106 million by 2035, and comprise 28 percent of the population. Total population will increase from 296 million in 2005 to 378 million in 2035.

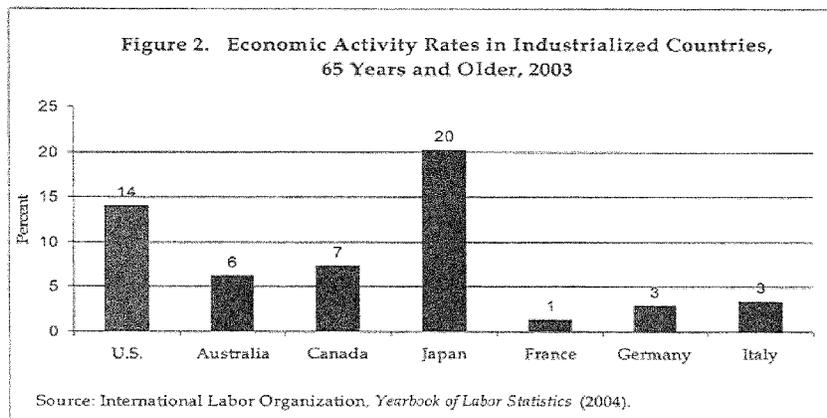
Americans age 65 or older comprise nearly 37 million people, or 11.0 percent of today's population. Over the next 30 years this group will grow fastest. Their numbers will more than double to 77 million by 2035. During the same period, Americans in the prime working age group, 25 to 54, will increase by only 14 million (11 percent).

The consumption demand of an aging and increasing population will lead to tight labor markets unless we have high productivity growth, increased labor force participation, and additional immigration. In America's dynamic and flexible economy, we already see two of these forces—higher productivity growth and increased labor force participation of older Americans—already at work to help offset the demographic changes that are underway.

#### Labor Force Participation of Older Workers

Fortunately for the United States, the labor force participation rate of older workers is increasing. We also see more older workers working full-time weekly schedules. Increased labor force participation of older workers is a positive sign that America's open and flexible labor markets are providing opportunities for older Americans who choose to remain economically active.

A higher percentage of older Americans work than do senior citizens of many other industrialized countries. In Figure 2 we can see that 14 percent of Americans 65 and older remain economically active, a figure in major industrialized countries only exceeded by Japan. In France, Italy, Germany, Canada and Australia the percentage ranges from 1 to 7 percent.



Improved health and greater longevity are changing traditional attitudes about retirement. Many Americans see continued work in their 60s and 70s, either part-time or full-time, as a source of vitality as well as a source of income.

In 2004, the last full year for which data are available, the U.S. labor force included on average 23 million workers age 55 or older. Of these, 18 million were age 55 to 64 and 5 million were age 65 or older. In 2004, the 23 million Americans age 55 or older in the labor force comprised 16 percent of the labor force. Thirty-six percent of Americans age 55 or older were in the labor force in 2004.

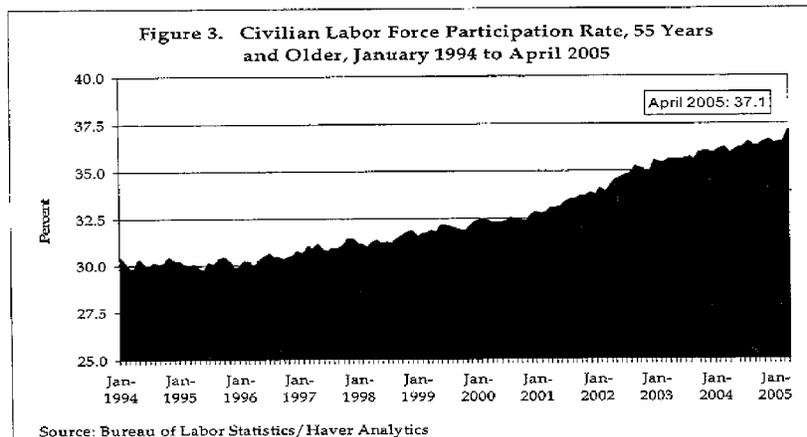
From 1995 to 2004, the labor force participation rate for every group of older Americans increased. For the 55 to 64 age group the labor force participation rate increased from 57 percent to 62 percent. For the 65 to 74 age group, the labor force participation rate increased from 18 to 22 percent.

The labor force participation rate of Americans age 55 or older, both men and women, has been rising since 1993. In 2004, the labor force participation rate for men age 55 or older was 43 percent. For women age 55 or older, the labor force participation rate in 2004 was 30 percent.

#### **Employment and Unemployment Experience of Older Americans**

Older workers consistently experience lower unemployment rates than do younger age groups. In 2004 the unemployment rate for Americans age 55 or older was 3.7 percent, compared to the overall average unemployment rate of 5.5 percent. Older workers are more likely to be self-employed: 17 percent of workers age 65 or older were self-employed in 2004, compared to 11 percent of age 55 to 64 workers and 8 percent of age 45 to 54 workers.

One noteworthy trend has been toward a higher proportion of older workers working full-time. This may be a result of the removal of the Social Security earnings test for workers age 65 or older in 2000. In 2004, on average, 77 percent of workers age 55 or over worked full-time. In 2004, 23 percent of workers ages 55 and above usually worked part-time weekly schedules (down from 28 percent in 1994). Figure 3 shows that the labor force participation rate of older Americans has increased steadily over time, reaching a high of 37 percent in April 2005.



### Economic Conditions of Older Americans

Some may say that older Americans have to work more because they are less well off. But data show the opposite: the economic condition of older Americans is above average and steadily improving.

According to the 2000 Census, Americans age 65 or older were more likely than younger groups to own their own home (78 percent), to earn interest from financial assets (70.5 percent) or to own stocks (29 percent). The median net worth of families headed by persons 65 to 74 years old in 2001 was \$176,000, up from \$122,000 (real 2001 dollars) from 1992. For families headed by persons 75 or older, the median net worth was also higher in real terms—\$151,000 in 2001 compared to \$107,000 in 1992.

In 2002, the proportion of Americans age 65 or older with incomes below the poverty level was smaller than the overall population proportion of persons below the poverty level—10 percent of the age 65+ group compared to 12 percent of the overall population. In 1970, 25 percent of Americans age 65 or older were below the poverty line, and, as recently as 1993, the proportion was 12 percent.

### Increasing Flexibility for Americans in the U.S. Labor Market

The flexibility of the U.S. labor market enables older workers to choose the pattern of labor force participation that fits their preferences and needs. The removal of Social Security earnings tests for workers age 65 or older ensures incentives to remain in the labor force if desired. Income tax reductions since 2001 have increased the incentive to remain economically active.

However, flexibility and the range of choices need to be further increased, not just for older Americans but for everyone. Allowing all private sector American workers the choice of comp time or overtime pay for overtime hours worked would provide additional flexibility that would make it easier for Americans to participate in the labor force. Currently, only public sector workers who work overtime hours are allowed to take comp time off in lieu of overtime pay. Under the Fair Labor Standards Act, private sector workers are not given this option. With our aging workforce, we need to encourage as many people as possible to work if they choose to do so.

Let me give you an example of how this could work for a senior citizen. Say that a grandmother has worked 50 hours rather than 40 hours 1 week, and wants to take some time off to see her grandchildren rather than receiving overtime pay and working regular hours the next week. A choice of 1½ hours of comp time instead of 1½ hours pay would allow her to do that. She may wish to catch up on errands, or catch up on sleep. The option of comp time rather than overtime pay could tempt such a person into taking a job rather than staying home.

A choice of comp time rather than overtime pay would also encourage other groups, such as working mothers, to enter the workforce. As a working mother with 6 children, I am fully aware that there are many important parts of a worker's life, including time with family. Extra time spent at work 1 week is manageable if there is an option to be able to take more time off at another point.

In the same way, biweekly work programs would allow Americans to divide their work hours between 2 weeks rather than 1. With 80 hours of work in a 2-week pe-

riod, excess hours in 1 week could be made up with decreases in the next. This is especially important for those with other commitments.

What is important is that private sector hourly workers be given the same choice as those in the public sector. One reason that so many women choose to work in government is the flexibility of comp time.

### Global Competitiveness

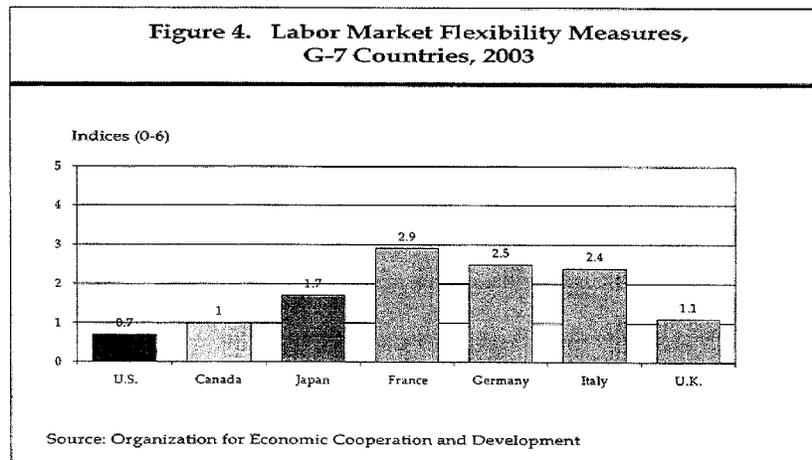
Global competitiveness is a second major challenge for the American economy. New forms of communications and more efficient mobility make it easier to import goods from abroad and to export products to other countries. In March, our exports of \$102.2 billion were at a record high and were 7.1 percent higher than a year earlier.

We cannot shy away from increased global competitiveness. It is here to stay, and we need to face it head on rather than hiding from discussions of outsourcing. Yes, it is estimated that U.S. firms outsource about 300,000 jobs a year, but foreign companies employ directly at least 6 million workers in the United States, according to the Department of Commerce, and indirectly provide an equal number jobs for millions of others.

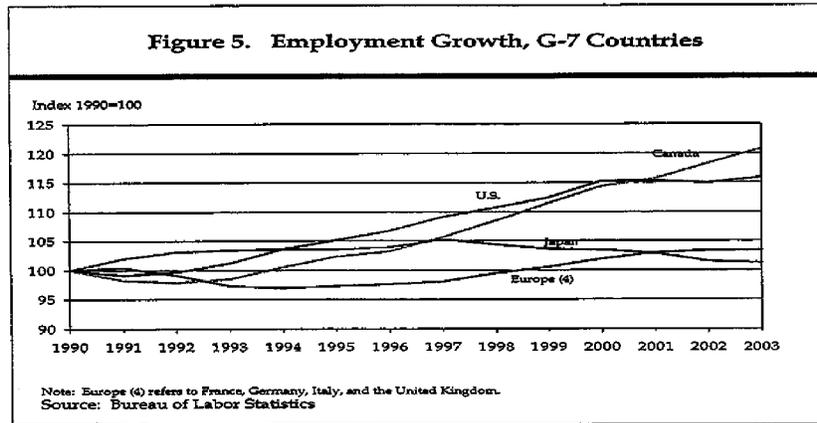
Increased global competitiveness is yet another reason for keeping our labor markets flexible and trying to extend that flexibility. As President Clinton's former Chairman of the Council of Economic Advisers, Martin Neil Baily, has written in his 2004 book *Transforming the European Economy*, coauthored with Jacob Kierkegaard,

"The key to economic growth in high-income countries is adaptability and flexibility. Only flexible economies are able to adapt to internal shifts, global developments from beyond their borders, and new technological advances, while generating productivity growth and new jobs required to achieve true social cohesion." (page 6)

Figure 4 shows an index of labor market flexibility measures for the G-7 countries in 2003, the latest year available (data for 2004 will be published this July). This shows that the United States has the lowest amount of employer mandates governing the hiring and firing of workers of the countries examined.

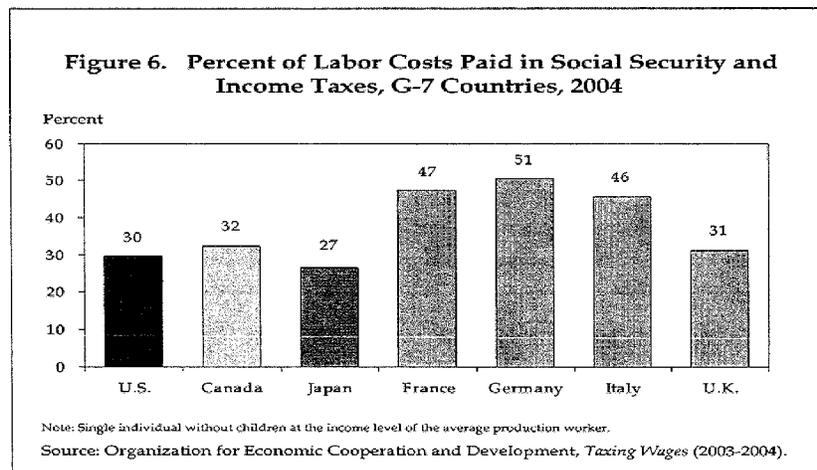


This is associated with a vibrant labor market that benefits American workers. In the United States 62 percent of the working age population is employed, compared with 57 percent for Japan and 52 percent for the four major European countries. Employment growth in the United States has been far higher than in Japan and Europe, as can be seen in Figure 5.



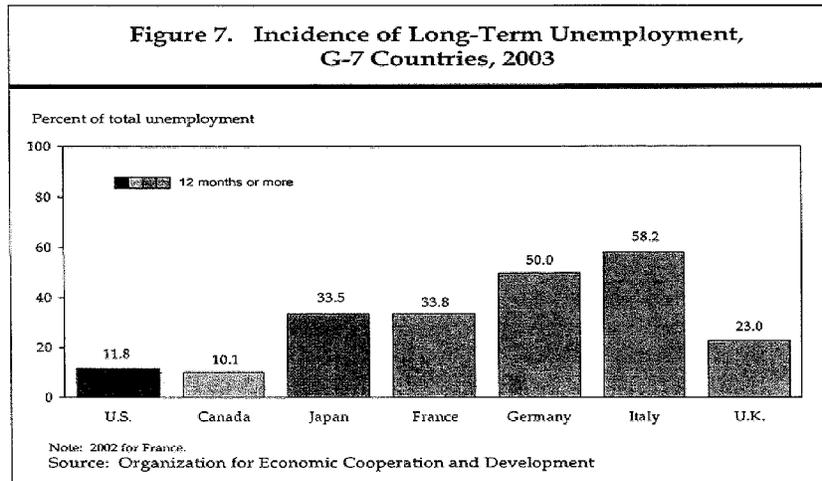
Not only are a higher proportion of Americans employed, but these Americans work longer hours every year than do their counterparts in many other countries. In 2003, OECD data show that Americans worked on average 1,792 hours per year, compared with 1,718 hours in Canada, 1,673 hours in the United Kingdom, 1,591 hours in Italy, 1,453 hours in France, and 1,446 hours per year in Germany. Of major industrialized countries, only workers in Japan work more hours per year than Americans.

One reason Americans work more is that they have lower tax rates and so keep more of their earnings. Figure 6 shows a comparison of the percent of labor costs paid in social security and income taxes for the G-7 countries in 2004. These data are for a single person without children who earns the average production worker's wages. The American would pay 30 percent of his salary in taxes, compared with 31 percent for the British worker, 32 percent for the Canadian, 46 percent for the Italian, 47 percent for the Frenchman, and 51 percent for the German. Only the Japanese worker is taxed less, at 27 percent, and, not surprisingly, worked more hours than his American counterpart.



We saw above that Americans have lower unemployment than do other major industrialized countries, and we can see in this figure that when they are unemployed they find jobs faster—they are unemployed for a shorter period of time. Figure 7 shows that only 12 percent of the unemployed are unemployed for a year or more, compared with 33 percent for Japan, 34 percent for France, 50 percent for Germany,

and 58 percent for Italy. The only major country that does better than the United States is Canada, with only 10 percent unemployed for more than a year.



One impossible challenge of the 21st century is forecasting what technology is going to be 10 years from now. Ten years ago, in 1995, most Americans did not have cell phones, they did not have e-mail, and they could not even own blackberrys because they had not been marketed. With these new inventions productivity is rising substantially. We do not know where technology is going to lead us in 2015 or 2025. But we do know that our employers are going to need to adapt to whatever comes along, and we need to give them the tools to do so. We also need to protect the intellectual property of our inventors and entrepreneurs, and not allow other countries to pirate our ideas. The United States leads the world in creativity, and theft of intellectual property has been estimated to cost us hundreds of billions of dollars.

In conclusion, just as we now have more flexible labor markets than our major competitors, we need to expand that flexibility as we move forward into the 21st century. We need to make the workforce more attractive by giving everyone the option of comp time instead of overtime. We need to lower taxes rather than raising them. We need to decrease mandates rather than increasing them.

Thank you for giving me the opportunity to appear here today.

The CHAIRMAN. Mr. Bernstein?

Mr. BERNSTEIN. I, too, thank the committee for the opportunity to testify today and applaud you for addressing the challenges facing our workforce both now and in the coming decades.

Economists and policymakers have stressed the opportunities of the global economy and the dangers of pushing back against them. Like others in my field, I agree with these sentiments: when the global economy calls, you had better up the phone.

Yet surely it is the case that globalization creates both winners and losers, both here and abroad, now and in the future. Many in our manufacturing workforce have watched their jobs and their factories leave for other countries, and now in an era where white-collar jobs can increasingly be offshored, even our most skilled workers face competition from workers with similar skill sets yet far lower wages.

Millions go without health insurance, see their pensions erode, and watch their incomes stagnate while the benefits of economic growth flow freely to those at the top. We are just now coming out of the longest jobless recovery on record, and for many in the work-

ing class, wage growth continues to lag inflation, even while profits and productivity soar.

This committee is well aware of these developments, and I take it as given that deriving a policy framework for addressing both the upsides and downsides of globalization is the main reason for today's hearing.

About 80 percent of the jobs lost to trade over the last business cycle were held by those with noncollege educations. But half of those jobs paid in the top half of the wage scale. So as intuition would suggest, jobs lost to trade, particularly those in manufacturing, are good jobs for those without college educations. The loss—in some recent periods, the hemorrhaging—of manufacturing employment is one of the most frequently cited costs of our protracted trade deficit in manufactured goods. Most recently, the sharp decline in the price of accurately transmitting information to faraway places has created the potential to bring millions of skilled workers into competition with our white-collar workforce, and the implicit supply shock from bringing these workers online is likely to create the opportunity for global labor arbitrage, creating downward pressure on white-collar wages.

Over a period where our economy has consistently expanded, become far more productive, and become far more globally integrated, the hourly wage of the median male, as shown in the figure up there—historically a building block for the living standards of middle-income families—was unchanged over 30 years, between 1973 and 2004. It ended up at precisely the same level in real terms. At the same time, the 95th percentile wage ended the period up 30 percent over its 1973 level. To the extent that globalization was improving economic outcomes over this period, by this measure, its benefits eluded low- and middle-wage men.

The figure in my written testimony plots the receipt of employer-provided health care and pension coverage for college graduates starting out in the workforce. I chose this group because, as newly minted college grads, they presumably suffer less from any skills deficits than those with a terminal high school degree. Yet these workers' skills have failed to insulate them from the loss of pension and health coverage. The challenges of globalization must also be viewed in the context of changes in our workforce, particularly regarding the pressures of balancing work and families. Today, two-thirds of mothers with children work in the paid labor force. In fact, given male stagnation of hourly wages, as shown in this slide, extra work by wives has been a critical factor in preventing the decline of the incomes of middle- and low-income married families with kids.

Now, how can we best meet the challenges that I have set forth? Many who consider this question focus less on direct policies to insulate our workers from shouldering more of the risk inherent in expanded globalization and more on the prospective difficulties facing future employers finding enough skilled workers. In fact, the mantra of a skill shortage is so often repeated that it seems beyond question. Yet in an economy with scarce policy resources, it is essential to examine the evidence for and against the alleged coming skill shortage. I have done so in my written testimony and find the evidence to be weaker than you might expect. I will not take the

time to go through the arguments in detail. I will say that the predicted occupational shifts that should be forthcoming over the next decade should raise the demand for workers with at least a college degree by 1 percentage point over 10 years. Given the expected increase in the supply of college graduates, we are likely to meet those projected skill demands. Of the 30 occupations adding the most jobs over the next decade, only eight call for a college degree.

It is also very hard to square these concerns regarding our present and future skills mismatch with the post-1995 productivity acceleration, a trend that is highly inconsistent with the warnings of skill shortages years back. Those shaping workforce policies based on these types of predictions should know that the past is littered with inaccurate claims based on demographic projections because, contrary to the oft-made claim, demographics are not destiny. Too many other factors can and do intervene such that demographic change always explains a relatively small share of future outcomes.

Back in the mid-1980s, researchers at the Hudson Institute warned that skill demands would mean higher unemployment for less skilled workers. Their base-case prediction by these forecasters for unemployment in 2000 was 7 percent. In fact, the unemployment rate was 4 percent in that year, and the 2000 rate was driven down in large part by the tightest low-wage labor market in decades.

Turning finally to policy recommendations, I am mindful that even the mildest forms of work protections are criticized by opponents as a destructive response to globalization to future workforce pressures. Under the guise of “flexibility,” it is argued that in an increasingly global economy we can no longer afford labor protections that date back to an era when our economy was far less globally integrated. This strategy threatens to take our workforce policy in exactly the wrong direction. We cannot both shift more risk onto our workforce in an era of increasing economic insecurity and inequality and expect them to embrace globalization. Neither, of course, can we build walls around our economy.

Instead, we must think in terms of providing our workforce with both the tools and the protections they need to maximize the benefits of globalization. Some ideas consistent with that goal: expand trade adjustment assistance to workers in all sectors, covering all countries with whom we normally trade; protect and enhance workers’ rights to organize, as articulated in the Employer Free Choice Act; take the responsibility for health insurance coverage out of the workplace and more toward a single-payer, universal approach to health care, based on expanding Medicare to the nonelderly; raise the minimum wage and modernize the unemployment insurance system; remove tax incentives for companies to shift jobs overseas; ensure universal access to pre-K so every 3- and 4-year-old in the Nation has a quality learning environment; ensure access to higher education for all who want to attend college by paying the costs of postsecondary education for every child in America who can qualify; help working parents balance work and family by implementing paid family and medical leave, paid vacation and sick days.

These are the policies designed to ensure that one of our greatest resources—the American workforce—has both the skills and the se-

curity they need to meet the challenges they face moving forward into the 21st century.

I thank you for the opportunity to testify today.

[The prepared statement of Mr. Bernstein follows:]

PREPARED STATEMENT OF JARED BERNSTEIN

I thank the committee for the opportunity to testify today, and applaud you for addressing the challenges facing our workforce both now and in the coming decades.

My testimony will focus on these challenges through the lens of globalization. The term, according to the International Monetary Fund, refers to the increasing integration of economies around the world, particularly through trade and financial flows.<sup>1</sup>

There can be no doubt that our economy is far more globally integrated than ever before. Thirty years ago imports plus exports amounted to 10 percent of our gross domestic product. Now they amount to 25 percent of GDP. Like other large forces of change, globalization is an inevitably evolving part of our economic lives. Advances in technology, most recently the decline in the cost of transmitting information, have diminished barriers between nations and expanded the U.S. marketplace far beyond our borders.

Economists and policymakers have stressed the opportunities embedded in these developments, and the danger of pushing back against them. Like others in my field, I agree with these sentiments: when the global economy calls, you'd better pick up the phone!

The benefits of globalization include the growth-enhancing ability of countries to tap their comparative advantages, the expansion of our export markets, and the price savings associated with imports. Similarly, the expansion of financial and labor markets has the potential to create greater competition, more efficient markets, and lower prices.

Yet, it is surely the case that globalization creates both winners and losers, both here and abroad. Many in our manufacturing workforce have watched their jobs and even their factories leave for other countries, and now, in an era where white-collar jobs can increasingly be offshored, even our most skilled workers face competition from workers with similar skill sets yet far lower wages.

As we discuss these matters today, tens of millions of workers go without health insurance, see their pensions erode, and watch their incomes stagnate while the benefits of economic growth flow freely to those at the top. We are just now coming out of the longest jobless recovery on record, and for many in the working class, wage growth continues to lag inflation, even while profits and productivity soar.

In such a climate, the view that forward-looking people must happily embrace whatever outcomes globalization yields is not productive. While the benefits of globalization are prodigious, many who have been hurt by trade competition feel devalued when elites stress solely those benefits and ignore the negative impact of these trends on working families. Moreover, if policymakers do not acknowledge and try to address these costs, we will increasingly encounter a public that views protectionism as the best way to insulate themselves from the downside of global competition.

I believe this committee is well aware of this danger, and that deriving a policy framework that addresses both the upsides and downsides of globalization is a main reason for today's hearing. Toward that end, I begin by presenting a set of economic outcomes that have evolved over the past few decades, as our economy has become more global. I stress that correlation is not causation, and that increased exposure to global competition is but one of many factors responsible for these changes. Where possible, I try to quantify its role.

Following that, I assess the policy responses offered to strengthen the competitiveness of our 21st century workforce. Two common lines of argument are skill enhancement and further deregulation of U.S. labor, product, and financial markets are the necessary components of a more competitive workforce. While improving access to educational opportunities is critical to improving living standards to many who currently lack such access, further deregulation—for example, reducing our labor standards—is likely to be counterproductive. Instead of making us more competitive, it will have the effect of shifting more economic risk onto our workforce, thereby amplifying the negative effects of globalization.

My testimony ends with a set of policy ideas designed to enhance our competitiveness while helping to provide a greater safety net to those whose economic fortunes

<sup>1</sup>See <http://www.imf.org/external/np/exr/ib/2000/041200.htm>.

have been subjected to greater risk. The goal of this policy set to harness the benefits of globalization in order to address its costs. Washington Post columnist E.J. Dionne, put it well in a recent piece, when he noted that the challenge for policy makers in this area is “. . . how to create enough security so that Americans can embrace a dynamic economy without fear. Paradoxically, throwing more risk onto individuals leads to risk-avoidance. Risk-taking requires a certain amount of risk-sharing.”<sup>2</sup> These sentiments guide the policy ideas I offer below.

### The Challenges Facing Today’s Workforce

In order to best plan for strengthening the workforce of the future, we need to understand the challenges facing today’s workers. This section briefly touches on the most relevant examples.

*Employment Trends:* As we show in *State of Working America, 2004/05* (Table 2.32—hereafter, referred to as SWA), over the last business cycle (1994–2000), 77 percent of the jobs lost to trade were held by those with non-college educations, but half of the jobs paid in the top half of the wage scale. Thus, as intuition would suggest, jobs lost to trade, particularly those in manufacturing, are good jobs for those without college educations. And a simple, but underappreciated fact is worth noting here: only a minority of our workforce, 30 percent, has a college degree or higher in 2004.

The loss—in some recent periods, the hemorrhaging—of manufacturing employment is one of the most frequently cited costs of our protracted trade deficit in manufactured goods. Most recently, manufacturing employment peaked in March of 1998; since then, the sector has shed 3.3 million jobs, including an unprecedented period of 43 consecutive months of job losses. Since that peak, manufacturing as a share of total employment has fallen from 14.1 percent of total employment to 10.7 percent. While this is a continuation of a very long trend—manufacturing has been shrinking as a share of total employment for decades—that trend accelerated over this period, as did our manufacturing trade deficit.

More recently, the sharp decline in the price of accurately transmitting information to far-away places has created the potential to bring millions of skilled workers from abroad into competition with our white-collar workforce. The implicit supply shock from bringing these workers “online” is likely to create the opportunity for “global labor arbitrage,” in the words of Morgan Stanley’s chief economist Stephen Roach, creating downward pressure on white-collar wages.<sup>3</sup>

In the globalization debate, these issues have been discussed under the rubric of “offshoring.” At this point, there is little solid evidence of the offshoring’s impact on jobs and wages, though anecdotes abound, particularly regarding the slow recovery in our IT sector. It is important to note that the lack of evidence at this point is due to the inability of our statistical system to capture this dynamic. Below, I suggest some ways in which we might do a better job of keeping track of how many jobs are “offshored.”

Most economists believe that even with increased offshoring, IT will again be a strong job-growth sector (hiring in IT has been depressed since 2001 due largely to the bursting of the tech bubble). In this regard, offshoring is likely to show up more in the compensation trends of our domestic workers in affected sectors than in their employment trends.

*Wage Trends:* Figures 1A and 1B show real hourly wage trends for men and women at various wage percentiles. For men, note the long-term decline in the real value of middle- and low-wages, while the 95th percentile wage climbed fairly steadily.

Relative to the role of globalization, two important points can be drawn from the trends in 3a. First, over a period where our economy consistently expanded, became far more productive, and became far more globally integrated, the hourly wage of the median male—historically a building block for the living standards of middle-income families—was unchanged over 30 years! In 2004 dollars, it started at \$15.24 in 1973 and ended up at \$15.26 in 2004. At the same time, the 95th percentile ended the period over 30 percent above its 1973 level. To the extent that increased globalization was improving economic outcomes over this period, by this measure, its benefits eluded low- and middle-wage men.

Recent work by my EPI colleague Larry Mishel has examined these male wage changes from the perspective of increased trade. A consensus figure from the inequality literature finds that trade explains about 20 percent of the increase in wage inequality. Between 1979 and 2004, the male median wage fell 4 percent while the 95th percentile male wage was up by 32 percent. In today’s dollars, this amounts

<sup>2</sup> Washington Post, May 20, 2005.

<sup>3</sup> See, for example, <http://www.globalendmagazine.com/2004/stephenroach.asp>.

to a growth in the hourly wage gap between these 2 percentiles of about \$12. Taking 20 percent of that gap and assuming full-year work translates into an income loss of \$4,700, a significant loss for these workers and their families.<sup>4</sup>

Second, notice that for middle- and low-wage women, as well as for men throughout the pay scale, real wages climbed steeply from 1995–2000, before flattening most recently. Prior to this period, most economic analysts argued that the limited skills of these workers were responsible for their weak wage outcomes. Yet skills had nothing to do with the wage acceleration of the latter 1990s; it was largely a demand-side phenomenon, as the unemployment rate headed for a 30-year low and the job market tightened up for the first time in decades.

The period serves as a critical reminder that policymakers must not limit their analysis to the supply-side, as in skill-based solutions, but consider the host of other factors that influence the opportunities for work and the quality of jobs. Over this period, taxes became more progressive, yet contrary to supply-side lore, investment soared and productivity accelerated. The minimum wage was increased and the Earned Income Tax Credit, a generous wage subsidy to low-wage workers, was significantly expanded. The Federal Government balanced its budget for the first time in 30 years, and the signal of fiscal rectitude was reassuring to financial markets, helping to push down the long-term borrowing rate, further boosting investment and productivity (Blinder and Yellin, 2001). Again, I note that none of these policies targeted alleged skill deficits, yet together they had a demonstrably positive affect on our workforce, reconnecting, albeit for too few years, the fortunes of many in the working class to the overall growth in the economy.

The momentum of the formerly full-employment job market kept real wages rising through mid-2003, but since then, the combination of slower nominal wage growth and faster inflation have led to declining real wages, particularly for less advantaged workers. For example, as shown in Figure 2, on a year-over-year basis, the hourly wages of blue-collar manufacturing workers and non-managers in services have failed to beat inflation for 12 months running.

Unlike wages, compensation growth has been beating inflation, but this is due to the rising costs faced by employers of providing healthcare and pension coverage. Even so, as shown in Mishel and Bernstein (2005), compensation significantly lags productivity, especially compared to prior periods.<sup>5</sup> We show, for example, that in past recoveries, real compensation grew 72 percent as fast as productivity, suggesting the benefits of greater efficiency were more broadly shared with the workforce. This time around, compensation has been rising 37 percent as fast as productivity.

Of course, the gap between workers real wages and productivity is far greater. Data from the Employment Cost Index—a closely watched source of compensation and wage data for all civilian workers (and thus more comprehensive than the production worker series in Figure 2)—reveals that while benefit costs have been driving compensation ahead of inflation, wages have grown far more slowly. In fact, the year-over-year growth of the ECI wage and salary component has been 2.4 percent for the past three quarters, the lowest growth rates for this series since its inception in the early 1980s. Since 2001q1, real ECI wages have grown at an annual rate of 0.7 percent while productivity has expanded 4 percent per year, an historically unprecedented gap between paychecks and productivity.

Where, then, if not into compensation, has the growth been going? It has largely flowed to profits, which have soared since the recession, creating a historically unique pattern. Over prior business cycles, profits (including interest income) have accounted for 23 percent of the growth in corporate-sector income, on average, with total compensation accounting for the remaining 77 percent. In the current business cycle, the distribution is almost reversed: profits have claimed nearly 70 percent of total growth in the corporate sector, while increases in compensation (from increased employment and higher hourly compensation) have received just over 30 percent of total income growth.

*Employer-Provided Pension and Health Coverage:* Figure 3 plots the receipt of employer-provided health care and pension coverage for college graduates starting out in the workforce. The group is chosen for the analysis because as newly-minted college grads in the workforce, they presumably suffer less from an alleged skills' deficit than those with terminal high-school degrees. Yet, these workers' skills have failed to insulate them from the loss of pension and health coverage, as the share with employer-provided health care has been drifting downward for decades, while the trend in pension coverage has been stagnant or falling with the exception of the latter 1990s. Most recently, a decline in pension coverage for young college graduates is evident at the end of the figure.

<sup>4</sup>The hourly gap grew by \$11.82. This figure times .20\*2000=\$4,728.

<sup>5</sup>See: [http://www.epinet.org/content.cfm/webfeatures\\_snapshots\\_20050421](http://www.epinet.org/content.cfm/webfeatures_snapshots_20050421).

To make matters worse, due to the shift from defined benefits (DB) to defined contributions (DC), pensions have become less secure for those who still have them. In the early 1980s, those who received pension coverage were about four times more likely to have a guaranteed pension benefit upon retirement than one subject to the outcome of the employee's investments and the employer's match. This ratio flipped in the mid-90s and DC pensions are now more prevalent than the DBs. The fact that these trends are befalling skilled workers suggests that policymakers need to think beyond skill-enhancement to re-secure health and pension coverage for these workers.

*Balancing Work and Family:* The challenges of globalization must also be viewed in the context of changes in the composition of our workforce over time, particularly regarding the pressures of balancing work and family. As is widely recognized, the share of women in the job market has about doubled since we started tracking the statistics in the late 1940s, while that of men has consistently fallen. In 1950, women were 30 percent of the workforce, now they account for just under half. Today, about two-thirds of mothers with children work in the paid labor market; even among moms with kids under 6, a solid majority work, with employment rates just below 60 percent.

In fact, given male wage stagnation (see Figure 1a), extra work by wives has been a critical factor in preventing the decline of incomes among middle- and low-income married families with children. As we show in SWA, low and moderate-income wives (in the first two income quintiles) increased their hours of work by between 60 and 70 percent between 1979 and 2000, while middle income wives increased their hours by about half.<sup>6</sup> Higher income wives started from a significantly higher base and their hours grew less in percentage terms. They too, however, increased their hours by about one-third over the 1980s and 1990s combined.

Translating these large percentage increases into the equivalent of full-time work gives a sense of how much more time these working wives spent in the paid labor market. Moderate- and middle-income wives added over 3 months, while wives from low- and high-income families added over 2 months.

In the absence of these added hours of wives' work, family incomes would have fallen for the bottom 40 percent of married couple families with children, and would have risen only 5 percent for middle-income families over the 2 decades from 1979–2000. Instead, thanks to wives' contributions, their incomes rose, by 8 percent for the bottom fifth, 16 percent for the second fifth, and 24 percent for the middle fifth.

These gains, of course, did not come without putting considerable stress on working families. From the perspective of workforce policy, the relevant question becomes: which policies can help families balance their need and desire to work and pursue careers, while giving them the time and resources they need to raise their families. I address these issues in the policy section below.

*Income inequality:* As noted in the introduction, the economic dynamics associated with globalization creates winners and losers. One way this has played out in recent years is through increasing inequality, as workers in sectors and occupations more complementary with increased global integration have claimed far more of the economy's output than those in competing sectors. For example, managers in manufacturing may benefit through outsourcing work to cheaper overseas platforms while blue collar workers may be displaced.

According to the most comprehensive income data, developed by the Congressional Budget Office, the after-tax, inflation-adjusted incomes of the bottom fifth of households grew 5 percent between 1979 and 2002. For households in the middle fifth, the average gain was 15 percent; for the top fifth, 48 percent, and for the top 1 percent, 111 percent (see Figure 4). Over this same period, our economy has become increasingly more productive, and while technological advances are the main factors cited for these gains, some economists credit trade as well, particularly for generating lower prices. In fact, productivity increased 53 percent, 1979–2002, but as these inequality statistics reveal, the benefits of this greater efficiency eluded most in the working and middle classes.

This evolving gap is shown in Figure 5, which plots the relationship between productivity growth and the real income of the median family. From the late-1940s to the mid-1970s, the living standards of middle-income families increased in lock-step with productivity growth, as the benefits of the expanding economy were shared evenly by all who played a role in that expansion. Since then, the wedge of inequality has severed this relationship, despite the fact that middle-income families are

<sup>6</sup>See pages 100–106.

working harder than ever before.<sup>7</sup> As can be seen at the end of the figure, this problem has worsened in recent years. Between 2000 and 2003 (the most recently available income data), productivity expanded by 12 percent while median family income fell by 3 percent. In fact, the gap between the two series in 2003 is the largest on record, going back to 1947.

*Recent Trends:* Most recently, the formerly jobless recovery has left us with a labor market that remains slack, and while we've achieved some decent growth numbers in terms of GDP and especially productivity, the incomes of middle-income families fell each year between 2000 and 2003. As shown in SWA, Table 1.2, the post-2000 income losses are more than explained by the decline in annual hours worked, a function of the protracted labor market contraction. Poverty also rose over these years, and rose most for the least advantaged, like single-moms who are more vulnerable now that our safety net seems better designed for booms, not busts.<sup>8</sup>

On the plus side, our economy is steadily creating jobs again, albeit at a rate which jobs lags past recoveries. Over the past 12 months, for example, employment has been expanding, on net, at an average rate of 181,000 per month. In the last recovery, the monthly figure for the comparable point in the business cycle was 300,000. The current unemployment rate stands of 5.2 percent is low in historical terms, but that figure presents far too rosy a picture of the job market—it is biased downward by the fact that millions gave up the job search due to perceived lack of demand and are thus not counted among the unemployed. This bias is also evident in the extent of long-term unemployment, which currently looms as a much larger problem than we would expect, given an unemployment rate in the low fives.<sup>9</sup> A better measure of current demand—employment rates—remain quite depressed, especially for African-Americans, males in particular.<sup>10</sup>

These are some of the problems facing many in the current workforce. Surely, some of them are more closely linked to global competition than others. For example, the slump in manufacturing employment is closely linked to the expanding trade deficit, while the slow growth in IT employment has more to do with the bursting of the tech bubble. Declining real wages amidst strong profit growth may well relate to the global wage arbitrage noted above, but it is equally a function of the slack leftover from the jobless recovery.

The larger point is that a policy framework for the 21st century workforce needs to grapple with these realities. The question for policymakers is then how, in an increasingly global economy, do we meet these challenges while enhancing our competitiveness? How can we harness the economic benefits of globalization in such a way as to pushback against greater inequality, ensuring that the living standards of working and middle-class families benefit from advances in trade and technology as much as those at the pinnacle of the income pyramid?

### **Demographics Are Destiny . . . Not!**

Interestingly, many who consider these questions focus less on direct policies to insulate our workers from shouldering more of the risk inherent in expanded globalization, and more on the prospective difficulties facing future employers (Hudson Institute, 1987 and 1997). Here, I briefly discuss two threads of their concerns: the future skills shortage, and the challenge of future demographic trends.

*The Skills of Our Current and Future Workforce are Important, But They're Not the Whole Story*<sup>11</sup>

No serious analyst could question the value and importance of a skilled workforce. Years of economic research has established that an increasing supply of skilled workers is a critical input into production, leading to higher productivity growth and better living standards throughout the economy. Great innovations that have helped to establish our world-class economy are clearly linked to the quality of our workforce.

Many critics of the American education system, however, argue that we already fail to produce enough skilled workers to meet employers' demands and that this shortfall will only worsen. And few who have examined this issue can doubt that access to quality education is blocked for many deserving, yet disadvantaged, Americans. In fact, the mantra of a skills-shortage is so often repeated it seems churlish to question it.

<sup>7</sup> Between 1979 and 2000, the annual hours of work of middle-income, married-couple families increase by over 500 hours, largely due to the contribution of working wives (Mishel et al., 2004).

<sup>8</sup> See Greenberg and Bernstein, 2004.

<sup>9</sup> See [http://www.epi.org/content.cfm/webfeatures\\_snapshots\\_20050518](http://www.epi.org/content.cfm/webfeatures_snapshots_20050518).

<sup>10</sup> See: [http://www.epinet.org/content.cfm/webfeatures\\_snapshots\\_20050406](http://www.epinet.org/content.cfm/webfeatures_snapshots_20050406).

<sup>11</sup> Some of this text is adapted from Bernstein (2004).

Yet, in an economy with scarce policy resources, it is essential to examine the evidence for and against the alleged coming skills shortage. There's little question that the Federal Government will remain in the business of investing in workers skills, of course, but should these investments crowd out other, more direct ways of enhancing the security of our workforce? Here are a number of reasons to question the existence of a skills mismatch of a magnitude that would lead us to that conclusion:

- The most frequently cited evidence for a skills shortage over the past few decades is the increase in the college wage premium. But the rise in the college premium has been partly driven by shift in economic structures that have served to lower the wages of less educated workers, such as the loss of manufacturing jobs, fewer unions, lower minimum wages, and, excepting the latter 1990s, high average unemployment rates. When many of these factors pushing down low wages were reversed in the latter 1990s, the growth college wage premium decelerated.

- Contrary to the skills-deficit argument, the real wages of college graduates have not been consistently bid up. Figure 6 shows that for about 10 years, from the latter 1980s through the mid-1990s, the real wages of young college graduates were flat. Their premium may have been rising over this period, but as just noted this was partly due to the structurally-induced decline in wages of less-educated workers. Presumably, a true skills shortage should lead to rising absolute wage levels, not simply relative wage gains. As in the wage percentile figures above (1B and 1B), this figure also reveals the boost these workers got from the full-employment labor market of the latter 1990s, and the reversal of that positive trend in recent years. Once again, the importance of demand as a wage determinant is evident, though this emphasis is generally absent from the supply-side skills discussion.

- Occupational employment shifts show steady, not accelerating growth of skill demands. It is critical to note that skill demands have always risen over time and will continue to do so. However, the "skills mismatch" claim argues that the rate of skill demands has increased. In Bernstein and Mishel (2001), we present an index of occupational skill demands and show that it has proceeded at a steady pace over the past 25 years.

- The quality of our labor supply has increased significantly, and will continue to do so. We have doubled the share of college educated workers, including those with advance degrees, from 14.6 percent in 1973 to 29.5 percent in 2004. Conversely, we have cut the share of high-school dropouts from 28.5 percent in 1973 to 10.3 percent in 2004.

Still, it is possible to accept that while the case for skill shortages in our current economy is weak, given increased globalization, future skill demands will outpace the supply of skilled workers.

Given the ongoing upwards shift in the share of the workforce that is college-educated, recent BLS projections of job growth by occupation do not paint a picture of difficult-to-meet skill demands. While most of the fastest growing occupations call for at least a college degree, these occupations are growing from a low base and are thus not contributing the most jobs to the future economy. Conversely, of the 30 occupations adding the most jobs over the next decade, only eight call for a college degree.<sup>12</sup> Summing over all the occupations, they are expected to add 12.6 million jobs over the next decade, yet only 28 percent are expected to require at least a college degree. As we show in SWA, Table 2.48, these predicted occupational shifts should raise the demand for workers with at least a college degree by one percentage point over 10 years. Given the expected continued increase in the supply of college graduates, we are very likely to meet these projected skill demands.

A final point here is that it is very hard to square concerns regarding our present and future skills mismatch with the post-1995 productivity acceleration—a trend unforeseen by any of the futurists who were warning of skill shortages years back. This is a particularly steep challenge for the skill-shortage adherents, since productivity growth, more so than test scores or educational attainment, is *prima facie* the best measure of the extent to which the skills of the workforce are promoting or hindering economic growth. Trend productivity growth accelerated by about 1 percent per year in the latter half of the 1990s—from 1.5 percent to 2.5 percent per year—and has since accelerated about another 1 percent (though many experts suspect that this added boost is less sustainable). Contrary to a skills deficit story, the acceleration of this most important economic indicator suggests that the skills of our workforce in tandem with capital investment and technological innovation appear

<sup>12</sup> See <http://www.bls.gov/emp/mlrtab4.pdf>.

to have given rise to a new golden era of accelerated productivity growth. Productivity experts expect this accelerated trend to continue into the future.<sup>13</sup>

*What About an Older, Slower-Growth Labor Force?*

A related set of concerns reflects the fact that our workforce is increasingly older, and, as the baby boomers begin to age out of the system and are followed by smaller birth cohorts, will grow more slowly than in the past. Like the case for skills mismatch, there is a grain of truth here. In fact, one of the few things we can predict with a modicum of accuracy is the demographic composition of the future population (though that of the workforce is a tougher call), since we know the age and demographics of those alive today, and have some ideas about immigration (though, as shown below, this is an area that has proved hard to predict).

However, those who intend to shape workforce policy based on these predictions should know that the past is littered with widely inaccurate claims based on demographic projections, because, contrary to the oft-made claim, demographics are not destiny. Too many other factors can and do intervene such that demographic change always explains a relatively small share of future outcomes.

Take, for example, an unrelated prediction I raise here because it is quite instructive in this regard. Based on the age structure of groups in the population with higher than average propensities to commit crimes, criminologists in the 1980s warned that crime rates in the 1990s would accelerate. In fact, crime rates plummeted in the 1990s, once again taking demographers by surprise.<sup>14</sup>

Closer to home, let us briefly look at some of the predictions made in the mid-1980s in the Hudson Institute's influential publication *Workforce 2000*. Warning that skill demands would mean higher unemployment for less-skilled workers, the base-case prediction by these forecasters for unemployment in 2000 was 7 percent. In fact, the unemployment rate that year was 4 percent (see Figure 7). Moreover, as shown in Bernstein and Baker, 2003, the rate was driven down largely by the tightest low-wage labor market in decades.

This is not to fault the Hudson Institute's forecasters—no one else saw the unemployment rate headed for a 30-year low. The point is that by focusing on the static demographic, economic, and policy data they had at hand, they missed a set of developments that swamped these factors. These include the acceleration of immigration—they assumed that Hispanics would grow by 22 percent as a share of the labor force, 1985–2000; the actual figure was 33 percent. They further assumed that Hispanic employment would fall from 6.4 percent of total employment to 5 percent; instead, it rose to 11.5 percent. They (and everyone else) failed to foresee that faster productivity growth that allowed the Federal Reserve to let unemployment fall below the consensus rate for full employment; they could not account for policy changes like welfare reform and the expanded Earned Income Tax Credit that sharply raised the labor force participation rates of single mothers.

Phenomena like these, and each period is replete with them, consistently foil demographic-based forecasts.

Most recently, along with skill shortages, demographic forecasters have added the slower growth of the future labor force to their list of concerns.<sup>15</sup> In large part, this concern stems from the economic identity noting that the rate of GDP growth equals the rate of productivity growth plus that of the labor force. Thus, if the labor force grows less quickly, it implies slower GDP growth, *ceteris paribus*.

Yet what determines future living standards, on average, is GDP *per capita* (of course, the living standards of families at different income percentiles is very much a function of how average growth is distributed). If GDP and population both grow more slowly, the outcome for GDP per capita is an empirical question.

An instructive short-run prediction comes again from the economic assumptions behind the BLS projections for growth over the next 10 years. As shown in Figure 8, GDP is expected to grow more slowly in the forecast years, by 0.2 percent. Yet population growth will slow by slightly more than this, by 0.3 percent, from 1.2 percent per year to 0.9 percent. The outcome is that GDP/capita will grow at the same rate over the two periods.

This is but one short-term forecast and as such, may not change the minds of those convinced of a coming labor shortage in the more distant future. But here again, the point is that there are “many moving parts” to consider when deciding

<sup>13</sup> See Jorgensen et al., [http://www.newyorkfed.org/research/current\\_issues/ci10-13.pdf](http://www.newyorkfed.org/research/current_issues/ci10-13.pdf).

<sup>14</sup> A number of reasons have been offered for the divergence between the predicted and actual outcomes, including a surprisingly strong economy, heightened punitive measures, and, according to controversial work by Leavitt and Donahue, (2000), more abortions decades hence (see Bernstein and Houston, 2000, re the other factors).

<sup>15</sup> See, for example, [http://www.aspeninstitute.org/AspenInstitute/files/CCLIBRARYFILES/FILENAME/000000225/DSGBrochure\\_final.pdf](http://www.aspeninstitute.org/AspenInstitute/files/CCLIBRARYFILES/FILENAME/000000225/DSGBrochure_final.pdf).

where to place scarce policy resources. The labor force may well grow more slowly in decades to come, but that will not necessarily lower GDP per capita. Faster productivity growth is already helping to offset the slower growth of the labor force. Finally, important shifts are underway regarding the age at which people leave the job market. Between 2000 and 2004, the only age cohort with an increasing rate of employment was those age 55 and up. Their employment rates grew by 3.4 percentage points, while those of 16–24-year-olds fell by 5.8 points and those of 25–54-year-olds fell by 2.5 points. Such changes can be unforeseen by demographically-driven forecasters.

### **Policy Recommendations: Not Walls, But Nets**

How can we best use the information presented thus far to frame the policy debate over how to amplify the benefits of globalization without ignoring the costs? The purpose of any policy set in this area is to strengthen the ability of our 21st century workforce to compete without forcing its participants to shoulder a disproportionate share of the risks embedded in a more dynamic, competitive global economy.

Too often, even the mildest forms of worker protections are criticized by their opponents as a destructive response to globalization. These same opponents point to existing regulations like overtime rules, minimum wages, and various types of social insurance, already weakened by years of attack and neglect, as hurting our ability to compete.

There is simply no evidence to support these claims. The history of such labor protections shows no correlation between them and any of the important macro-economic indicators of our competitiveness, including investment, productivity, or the growth of real national income. These protections are, however, more closely related to how both the fruits of that growth and the degree of economic risk are shared.

Under the guise of “flexibility,” it is argued that in an increasingly global economy we can no longer afford labor protections that date back to an era when our economy was far less globally integrated. To help our workforce compete, the argument goes, we must dismantle policies wherein the government attempts to internalize some of the risk inherent in market outcomes, even while the degree of risk has been ratcheted up by globalization.

This strategy threatens to take workforce policy in exactly the wrong direction. As the Dionne quote presented earlier stressed, we cannot both shift more risk onto our workforce in an era of increasing economic inequality and insecurity and expect them to embrace globalization. Neither, of course, can we build walls around our economy.

Instead, we must think in terms of providing our workforce with both the skills and the security they need to maximize the benefits of globalization. To do so implies the creation of a broad safety net that ensures that the living standards of all working families grow with the overall economy. Our policy set should be designed to diminish the growing gap between productivity and the wages, incomes, and economic security of our workforce.

Here are some ideas consonant with that goal:

- *Expand Trade Adjustment Assistance to workers in all sectors and covering all countries with whom we normally trade;*
- *Protect and enhance workers’ right to organize as articulated in the Employee Free Choice Act;*
- *Take the responsibility for health insurance coverage out of the workplace; establish an employer/labor commission with the assignment of recommending a single-payer, universal approach to healthcare, based on expanding Medicare to the non-elderly;*
- *Raise the minimum wage;*
- *Modernize the Unemployment Insurance system with the goal of increasing eligibility and coverage for those with shorter and more interrupted work histories;*
- *Get better information on the extent of offshoring;*
- *Remove tax incentives for companies to ship jobs overseas;*
- *Ensure universal access to pre-kindergarten so every 3- or 4-year-old in the Nation has a quality learning environment and arrives at kindergarten prepared to learn;*
- *Ensure access to higher education for all who want to attend college by paying the costs of postsecondary education for every child in America who can qualify: require the student to pay back over time from increased wages;*
- *Provide scholarships to any low-income individual who studies science, math, engineering or technology, both for undergrad and postsecondary education;*
- *Help working parents balance work and family by implementing paid family and medical leave, paid vacation and sick days;*

The theme behind these ideas is that preparing for tomorrow's workforce calls for a balanced approach. Policies of this ilk acknowledge the importance of improving K–12 education and providing access to higher education. But they also take as a given that the set of challenges facing our workforce now and in the future cannot be met by a skills agenda alone. A large majority—70 percent of our current workforce—is not college educated, and these workers continue to make vital contributions. Yet, for many, living standards have fallen even while the economy expands.

Balancing the needs of workers and employers means rejecting calls that invoke globalization as a rationale for greater risk shifting. Cutting social insurance benefits, shifting retirement savings into the stock market, pushing back on overtime protections and minimum wages, ignoring the glaringly obvious need to protect and expand our health care and pension systems—these harmful trends have all been rationalized under the guise of preparing our workforce to compete in the global economy.

The reality is that such policies can only lead to greater economic insecurities while dispiriting and devaluing one of our national treasures: the American workforce. Instead, the future demands a progressive policy set that harnesses our great resources to propel our workforce forward with both the skills and the security they need.

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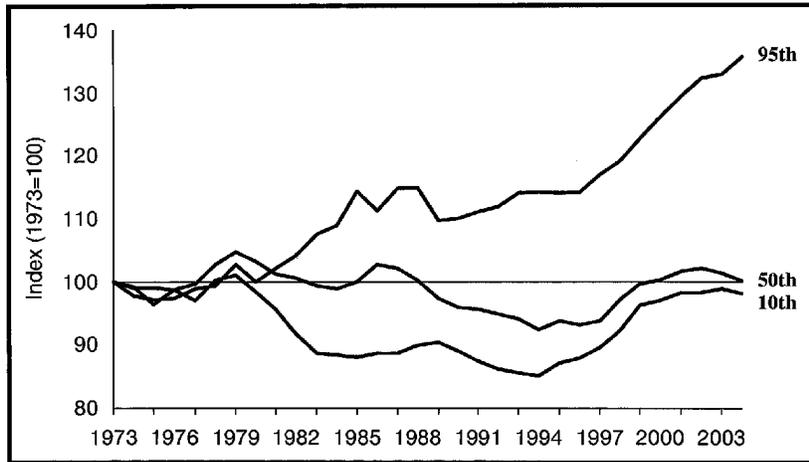
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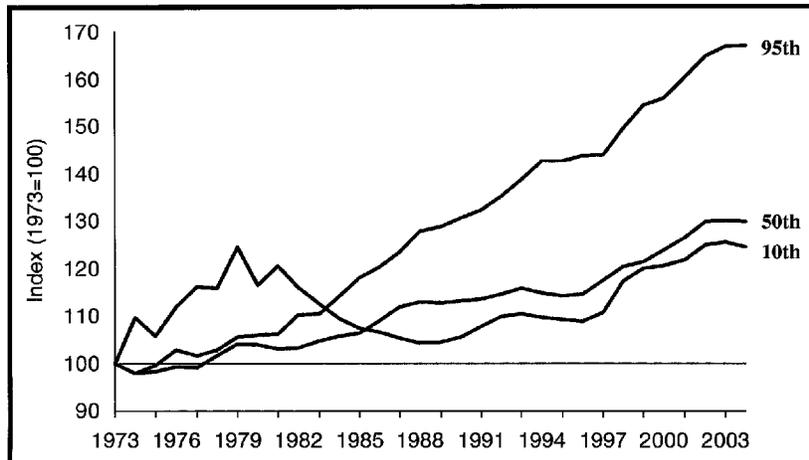
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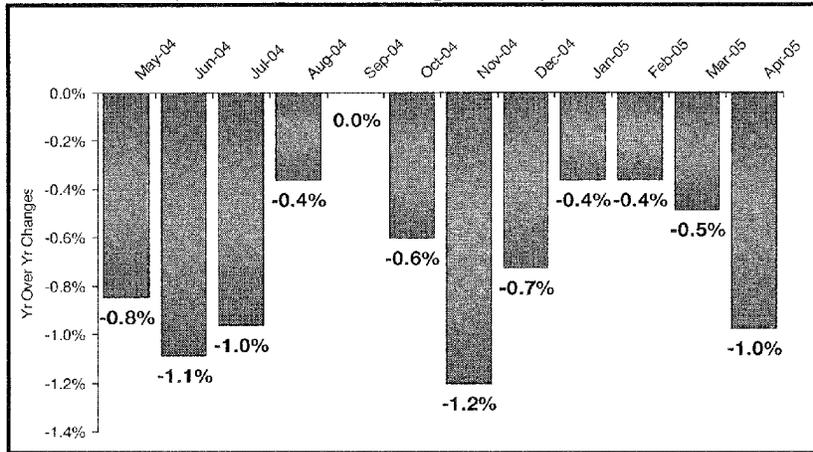
**Figure 1A: Change in real hourly wages for men by wage percentile, 1973-2004**



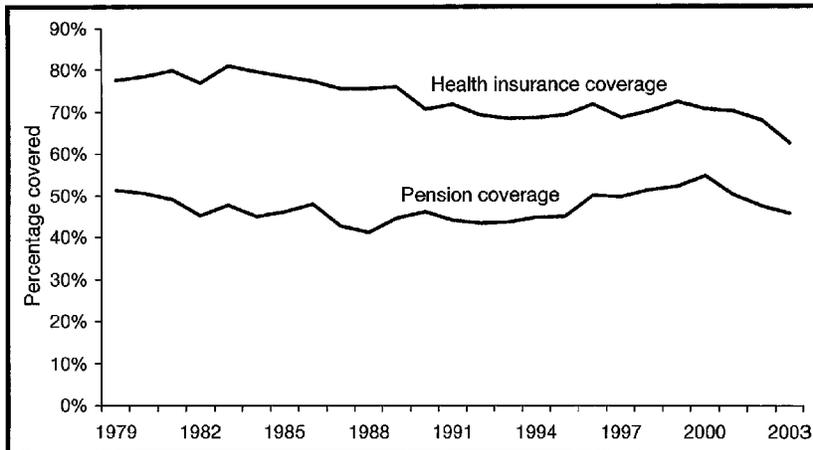
**Figure 1B: Change in real hourly wages for women by wage percentile, 1973-2004**



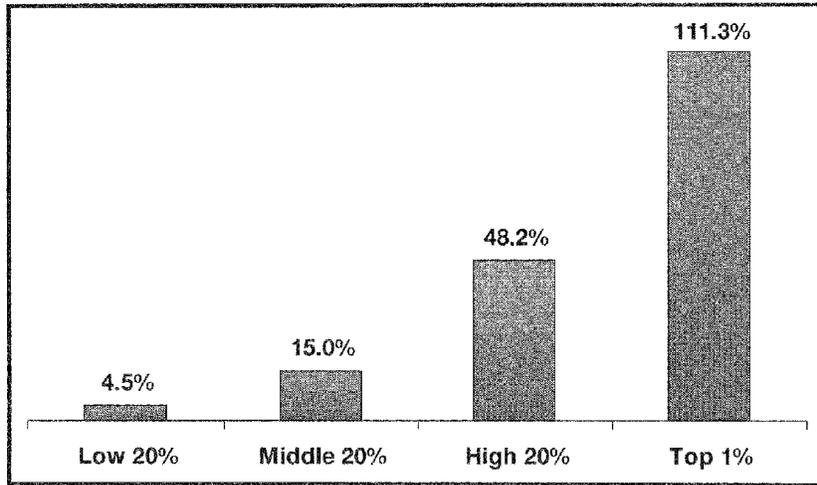
**Figure 2: Annual Change in Real Hourly Wages, May 2004-April 2005  
(Production, Non-Supervisory Workers)**



**Figure 3: Health and pension coverage for recent college graduates, 1979-2003**



**Figure 4: Real After-Tax Household Income Growth, 1979-2002**



**Figure 5: Productivity and Median Family Income Growth, 1947-2003**

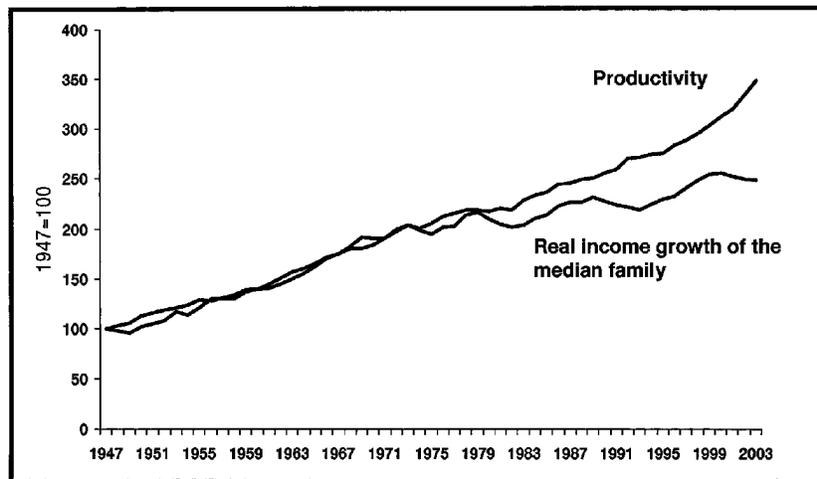


Figure 6: Real hourly wages of male and female entry-level college graduates, 1973-2004

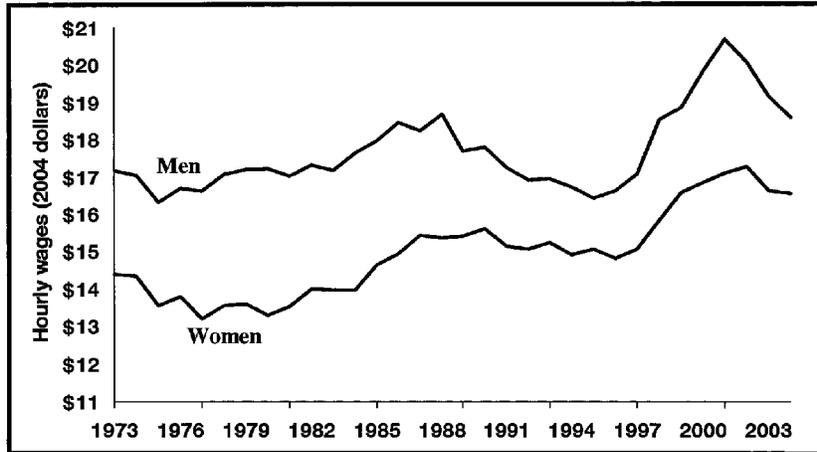


Figure 7: 2000 Unemployment, Forecasted in 1985 and Actual

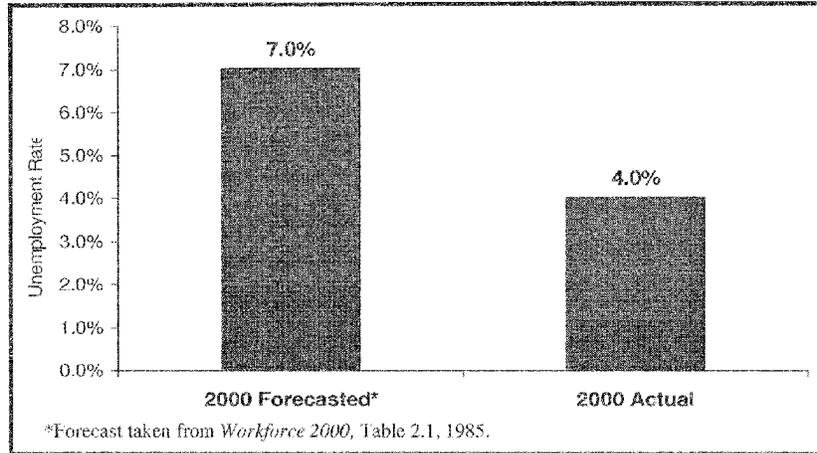
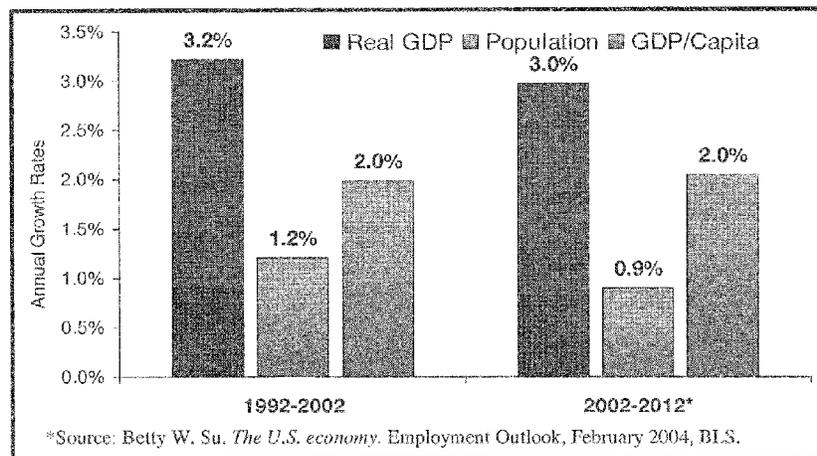


Figure 8: Real GDP, Population, and GDP/Capita,  
1992-2002 and Projections, 2002-2012



The CHAIRMAN. I want to thank all of you for your information, not only that you just shared verbally, but that is in your full statements. It is a very comprehensive work that all of you did that will provide us with a lot of very valuable information. Of course, what we have asked you to do by being on the panel is to be futurists. We are asking you to see into the future and predict what is going to happen so that we can do laws that will prepare for those predictions, and of course, we are hoping that you are extremely accurate too. One thing I have learned being around here is it is much easier to predict about the past, but that is not the luxury that we have, and I do appreciate in your testimony the extra work that you went to to provide us with that information.

I think the future is kind of scary, and every day the options get a little bit more limited. I am not sure that we have the excitement generated in the schools over the challenges and the opportunities that they face. It is real easy to think about the declining workforce and the scarcity that there will be of people that can do the jobs, and then the opportunity to say, "Well, that is okay, they are bound to hire me because there will be so few of us." I hope that we can build the excitement out there so that they are learning how to learn so that they can do the kinds of jobs that we cannot even envision at this point.

Any of you have any ideas on how we can generate that excitement among the kids? We keep talking about outsourcing jobs, but a lot of the jobs that get outsourced are not necessarily because of lower wages overseas, although that is a part of the problem, but a lot of them are because we do not have the people trained to do the jobs that are needed, and I think that is going to increase in the future. So how do we make them aware of the jobs that are going to be coming up and the skills that they will need to have, which means the kind of learning that they are going to have to be doing, learning how to learn. They will have to retrain. They

will not be able to take a job like their parents or their grandparents had where they go to work for one employer, they work there 30 years and they retire. I am not even sure most of the young people are looking at that as a particular goal these days. They are looking at the excitement of the job. How are we going to increase the excitement for them to be willing to take on the futuristic type of things rather than the traditional, which will get outsourced? Any ideas?

Ms. ERICKSON. I would offer a few comments. Our research certainly shows that what young people want today in a workplace is very different from what their parents were expecting, and as you said, Senator, the excitement is a huge factor. The ability to be flexible, the ability to work on a variety of different things. We found examples in our research of individuals who would not accept an employment arrangement, but insisted that the company structure it as a contract relationship because they want the psychological freedom to be able to move to different things and work on a project basis, and frankly, take time off when that is of greater interest to them.

So we are wrestling with a workforce that is becoming increasingly interested in part-time, flexible, contract, project, different ways of structuring their relationship with their employer that are quite different from the kinds of relationships that we have seen in the past. I think as our companies are better able to offer that, it will surely get our young people more excited about the prospects that work offers for them.

Ms. FURCHTGOTT-ROTH. Well, I would say that although I have shown these graphs showing how much better the United States is doing in many areas, primary, elementary and secondary school education is not one of them. University education is, but we are hearing from all different sources, we are hearing from employers that people with high school diplomas do not have enough math and reading and writing skills. We are looking at tests, comparative international tests. We see that our children score near the bottom in math and science.

And the Hart-Rudman Commission, when it came out with its report in 2001, had two major warnings. The first, there was going to be a terrorist attack in the United States, which happened on September 11th. The second was that our children are not getting enough math and science education. That second recommendation has been completely—the second warning is being completely ignored.

We need to do something to change the structure of education. We need to do something to have more competition in schools. We need to enable principals to have more authority and teachers to have more authority. We need to enable schools to fire teachers who are not doing a good job. We need to have more of the voucher systems that we see in Cleveland and Milwaukee and not condemn our poor children to low-quality schools in poor areas of town, but allow them to get out of it.

Here I worked at the Department of Labor, just a stone's throw from many poor schools. If I had wanted to go on my lunch hour and teach a seminar in economics at one of these schools, I would not have been allowed to do it because I am not teacher certified.

Here we are talking about getting older people back in the workforce. There are experts who graduate, who retire with Ph.D.'s at 55 or 60. They would like nothing more than to go teach a class. It would be good for them. It would be good for the children. They have incredible expertise in math, science, reading, writing. They are not allowed to do it. They do not have the teacher certificate.

I mean these are things we need to change. We would have more competition. We need to raise the standards. We need to put more exciting teachers in. That way the children will be motivated to have high standards and to get better jobs.

The CHAIRMAN. Thank you.

Mr. Bernstein?

Mr. BERNSTEIN. I think my observation is that the excitement about participating in the economy of the future among our kids today depends largely on the class and the families that they grow up in, the kinds of options and opportunities they have in their youth. Often our school system gets blamed for the fact that too many children show up to school without the schools and the health care they need to be able to be active participants. That is why one of my policy recommendations was ensuring universal access to pre-K for 3- and 4-year-olds, so these kids arrive at kindergarten prepared to learn.

Ensure access to higher education for those who want to attend college but do not have the means to do so. Provide scholarships to low-income individuals who study science, math, engineering and technology. All of these are ways to use our extensive resources to correct the inequities and inequalities that I think create the very dynamic that you described. I would not say that there is a widespread lack of excitement about the future. I would say that excitement is concentrated among those who have been placed in the economy in places of opportunity, in families that have higher incomes, in families who have benefited from the very concentrated growth of incoming wealth over the past couple of decades.

I would disagree with many of the ideas that Diana just suggested simply because I am afraid that those kinds of flexibilities have not shown to be associated with better outcomes, but in fact have reinforced the types of inequalities that I think have created the very dynamic you describe.

These problems of a lack of confidence, optimism about the future come, I would say, less from off-shoring and globalization and more from the economic conditions and the inequalities within which too many children are growing up today.

The CHAIRMAN. A lot of thoughts there and a little bit of divergence, but maybe bring that back together a little bit though. I was with a friend of mine who was a lifelong schoolteacher and huge defender of the public schools and a member of the union, and he said to me—now, Wyoming is very rural. We do not have a lot of options on school. In fact it is all public school. I am in a town of about 26,000 people and it is 145 miles from the next town of equal or greater size. And he said to me, "If somebody started a private school here, I think that about 80 percent of the kids would go to it." I said, "Why?" He said, "So there would be some discipline and competition. We have gotten rid of competition to increase self-esteem, and what we have done is taken the kids who have the low-

est self-esteem and relegated them to low self-esteem. They do not have that chance of competition to see that they could do a little bit better and grow a little bit there.”

It was a shock to me. I would appreciate your reflections on that.

Ms. FURCHTGOTT-ROTH. I think competition is absolutely vital. Imagine if we drove from here to New York and there was only one fast food chain, and it was McDonald's and everything else was banned? There would be no incentive for McDonald's to provide a good meal at any good price.

The same with education. There is no choice for these poor children. The better off people can have the choice of the Sidwell Friends or St. Alban's. I do not know where you send your children, Jared, but I am sure it is not the local school down here on Capitol Hill. They have choices. The other people do not. Lower-income people do not have choices. They have to send the children to the one school that provides low-quality service even though we have been putting more and more money into education. We spend about the highest amount on education per capita of any industrialized country. We get some of the lowest results.

What we need is more competition. We need more choices. It is elitist to say low-income people can not choose their schools. When there are vouchers offered, there is lines of people trying to get these vouchers to get their children out of the public school system, send them to some of the parochial Catholic schools that have better discipline or some of the other choices that there are that are better organized.

That is what we need to have. It works in every other sector of our economy. Competition raises standards that would work in education.

The CHAIRMAN. Mr. Bernstein?

Mr. BERNSTEIN. I would not disagree that a town like the one you described would possibly benefit from more competition. The problem that I see the way you framed it is that who would get to go to that private school? The problem again is not one of the overall quality of our K-12 education system. There are public schools that people in this room would be very happy to send their children to, but there are public schools, as you suggested, that we would not.

So it is a matter of distribution, and once again, it is a matter of giving the public schools—which in my view has been one of the greatest—talk about great natural resources, our public education system has historically been one of the greatest resources we have created, and it has largely contributed to the very prodigious productivity that we are seeing today. The majority of our students that are in our workforce today came through the public school system and you can see the results in a workforce that is more productive than it has ever been.

Once again, the problem is distribution, and if you splinter off the private schools and voucher systems—I worry about this under those conditions—what you are going to end up with is just yet another dimension of elitism and inequality built into the education system which has ideally in many years of our country been a great equalizer. So the goal needs not to be to peel resources away from

the public system, but to increase its resources so that it can perform that role of being that great equalizer that it always has.

The CHAIRMAN. Strangely enough, I am with you.

[Laughter.]

The point that he was making was the need for more discipline, that we have gotten a little lax on that. I know when I went to school that if I did something wrong and it was reported to my parents, there was no appeal, that I might be able to say something after I had my punishment but not before. My daughter is a teacher now and I know that occasionally she calls and lets a parent know that somebody did not turn in their homework or something like that, and she is always distressed that it becomes her fault.

So we have had a little change there. So I think his comment was more to the discipline, and since he is a basketball coach, probably the competitiveness too and some wishes for some reversal there.

We have been joined by Senator Kennedy. I would like to give him an opportunity to make a statement at this point and then we will pursue some more questions.

#### OPENING STATEMENT OF SENATOR KENNEDY

Senator KENNEDY. Thank you very much, Mr. Chairman, and I am very grateful to you for having this hearing.

I want to thank our witnesses. We are, as the chairman knows, trying to be in three places, in the markup on that asbestos bill, and Senator Specter is after all of us in terms of making sure we are there to try and finish up that legislation. It is very complex and complicated. It has enormous implications.

I think this in many respects is one of the most important hearings that we will have in this Congress because it is really a defining issue about where this country is going and how it is going to get there in terms of our future. I know the chairman is very much aware of this. I have listened to him speak on a number of different occasions.

But the basis issue, it seems to me, is whether we are going to be consumed by globalization or whether we are going to be challenged by it. Whether we deal with it in terms of individuals and our country and if we are going to be the main competitor and lead the world in terms of world economy while also ensuring our own national security. You see these trend lines in India and China in terms of the graduates, numbers of engineers, and then you look at what is happening in the United States now and see we are down to about 50,000 and half of those are foreigners. A good percent of those are returning rather than remaining.

And to look at where the research centers, not just the outsourcing of jobs, where these new research centers are going, into India and Bangalore and these other areas. And then look where they are going just in terms of weaponry. Without getting into classifications, most of these nations have stolen most of the weapons systems that we have at the present time. It is only a question of time before they are able to replicate and duplicate and build on them.

So we must understand that we are in a real challenge at this time and take the steps that are going to be necessary here at

home. I think I would be interested to the extent that our panelists can help us explain what we can expect and reasonably do to get other nations to try and live up to some international codes of conduct too. We are going to be faced with this issue with some of the prospective trade agreements that are going to be coming at us in the remainder of this Congress. And we have heard a lot of discussion. There is always a lot of talk when these matters come up before us. There have been some agreements that have actually been put in effect that have some positive results, but I would be interested in hearing from them what they might expect. Even if we do the things that we need to have done here—and I am not sure we are on the path to do all of those, but maybe our panelists could tell us what we ought to expect and what we ought to try and work on for these other countries, to make sure that no matter what we do in terms of investing in people and investing in research and development, that we are not just going to be sort of consumed by the rush to the bottom.

Jared, do you want to take first crack?

Mr. BERNSTEIN. Sure.

Senator KENNEDY. I will put my whole statement, with your permission, in the record.

The CHAIRMAN. Without objection.

[The prepared statement of Senator Kennedy follows:]

#### PREPARED STATEMENT OF SENATOR KENNEDY

The essence of the American dream is that if people work hard and play by the rules they can provide security for their families. But more and more Americans today are finding that their security is slipping away, and if we do not take steps to protect them it will continue to erode.

Economic security is being increasingly undermined by globalization. It's becoming harder for children to expect to do as well as their parents. Costs are rising while wages and benefits are falling. Americans are working longer and harder without enjoying the fruits of their labor.

The 2001 recession hit the Nation hard—millions of employees lost their jobs, and many of those jobs still haven't come back. The slow recovery was made worse by the pressures of globalization. More than ever before in our history, American workers are competing against workers around the world.

Sadly, this competition has become a race to the bottom—whoever is willing to work for the lowest wages gets the work.

That's why more and more American jobs are going overseas. We've lost nearly 3 million manufacturing jobs since 2001. Most are good, middle-class jobs, with decent wages and benefits. And it's not just blue-collar jobs—millions of high-paying white-collar jobs are now at risk of being shipped overseas, especially computer jobs, and even many business and management jobs.

This competition from abroad is also pushing down wages. Americans are working harder than ever, pushing productivity to record levels. But all that hard work is going into profits instead of employees' wages. Profits are up more than 70 percent since the recovery began, while wages have fallen in 7 of the last 12 months.

The sad truth is that the globalization is threatening the middle-class. I remember when Americans who worked hard could support their families.

But today, middle-class jobs are hard to find. Increasingly, our workforce is dividing into workers with high skills in the right fields, who can still find high-paying jobs with benefits, and the rest, who are left to compete for low-paying work without benefits.

Over the next decade, 7 of the 10 occupations that the Bureau of Labor Statistics predicts will add the most jobs are low-paying jobs, such as cashiers, food workers, retail salespersons, and janitors. At the same time, demand will increase for highly skilled workers in a few key fields, such as nursing and college teaching, that can't be shipped overseas, or in occupations that the global economy keeps in high demand, such as managers, accountants, and computer engineers.

We must deal effectively with both sides of this division. We must invest in our economy to create more high paying jobs. We must strengthen labor protections, so that workers aren't harmed by globalization but share in the prosperity they create.

At the same time, we must invest in higher education and job training to fill the high-paying jobs of the future and help ensure our future competitiveness in this global economy.

Today, more women, people of color, and older Americans are in the workforce than ever before. Women now make up just under half of the labor force, which also means more parents are in the workplace. Today, in 70 percent of American families, all parents are working, either one single parent or both parents—the exact opposite of 1960, when 70 percent of all families had at least one parent at home full-time. Workers today, and in the future, will need more flexibility, such as guaranteed paid sick days and expanded Family and Medical Leave in order to balance their work responsibilities more fairly with their families' basic needs.

Minorities are also becoming a larger part of the workforce—in the last 20 years, the proportion of minorities in the workforce has grown by more than 45 percent. But minorities consistently have higher unemployment and receive lower pay than whites. In the global economy, our prosperity depends on making the best use of the talents of every American worker. When minorities don't have equal economic opportunities, our economy suffers.

The workforce is also becoming older as the baby boom generation ages, and older workers are losing economic insecurity. Between soaring retiree health costs and increasingly threatened pensions, many employees can't afford to retire. Our retirement system itself has shifted to require workers to bear more and more risk. That makes it even more important to protect Social Security and preserve retiree health benefits and pensions.

American workers face risk and insecurity in their daily lives and in their future. The global challenge is jeopardizing the very heart of the American Dream. But it doesn't have to be this way. Our economy can work for everyone if we make the right choices. We can create the same spirit of innovation, invention, and progress that brought us the automobile, the airplane, and the computer. Year after year, we brought the American dream closer for all our citizens, and we can't afford to let it slip away again.

I look forward to the testimony of our witnesses on these all-important issues, and to working with our colleagues to ease this unfair burden.

Mr. BERNSTEIN. I think there are a number of things we can do. I appreciate the concerns that you raise. First of all, we need to, as I have stressed throughout, increase the access to higher education to many of our own citizens who are currently blocked, yet not by their skills. They could be fine and deep contributors to our economy if they had access to college educations. Too many minorities have the ability through the system to enter universities, but fail to complete them in many cases because of the income constraints they face. So the first thing we need to do is use resources to ensure access to higher education for anyone who wants to and can attend college by paying their costs for every qualifying child. We can require that student to pay back the loan over time from their increased wages.

At the same time we need to, obviously, have serious and enforceable rules in our trade agreements that try to stave off any kind of a race to the bottom that you mentioned. When we expand in global trade the benefits are very significant, but we are often expanding into countries whose norms and cultures and wage structures and rules are very different from ours, and in many cases have the potential to undermine ours, and we can use rules embedded in our agreements to try to prevent that from happening.

Finally, I think one has to face that a very basic answer to your question is that these trends, while they have great upside potential, also have great downside risks, and therefore, particularly if we want our workforce to embrace this challenge of globalization, we have to repair and increase the safety net such that it reaches all those who are potentially hurt by these trends.

Just to give one example. Our trade adjustment assistance program right now applies only to manufacturing workers who are displaced with trade by certain countries. Expanding that to cover all workers in all sectors with every country with whom we have normal trade relations would be a first step. That is the type of safety net we have to build to provide workers with the security, use the benefits of globalization to provide workers with the security they need to participate and meet the challenge.

Senator KENNEDY. Basically if there are going to be winners and losers, what you are talking about is that we ought to at least even this out. The economy will expand and grow, but the people are going to pay for it, individuals, and rather than putting the whole burden on those individuals who are not really making the judgments themselves but are basically caught up in this, that they are not going to bear the full burden on it.

Please?

Ms. FURCHTGOFF-ROTH. It is really a vital and very, very important question that you have raised, because here in our discussions with China we are talking about textile and textile quotas, and we are really being harmed very little by those because in fact if we placed more restrictions on China we would probably get textiles from somewhere else. But we are losing hundreds of billions of dollars because of intellectual property theft, and they are breaking

these laws left, right and center. They are doing nothing to enforce it, and we are doing nothing about it. I mean our DVDs are being pirated, even our furniture patents. People in North Carolina, they complain that the Chinese are copying those and selling those without giving them the rights that they are due. They are just copying our material, selling it, stealing it, and we are doing nothing. I mean we need to make them live up to the laws that they have signed, and we need to stand up for our companies. We need to get some of these, at least try to get these DVDs, pirated DVDs off the streets. Star Wars come on sale there, pirated on the streets before it opens in the theaters here.

We need to make a real effort to do something about that because we are losing hundreds of billions of dollars a year. And our competitive advantage is in creativity and intellectual property. So that is a vital question. We need to do absolutely more about it.

Senator KENNEDY. Would you put currency fluctuations into that mix too, you know, particularly with regard to China or are we getting too far from the real problem on this?

Ms. FURCHTGOTT-ROTH. Well, you see, China I think is hurting itself by pegging the yuan to the dollar and so eventually China is going to have to shift this policy to avoid just protests and high inflation in its own country. They are going to have to deal with the yuan, and they are going to deal with it. They do not have to deal with pirating our products, so they are not going to do that on their own, whereas they are going to adjust their currency on their own because it is unsustainable.

Senator KENNEDY. Tamara?

Ms. ERICKSON. I was just going to add that from a business perspective certainly protection of intellectual property is one of the most critical issues. Think about it in terms of what we will have going forward over the next several decades. It will be, as Diana said, our intellectual abilities and our creativity, and so anything we can do to foster that and protect that is where I would certainly suggest that our focus be aimed. I just wanted to add to the conversation about education the importance of educating people and exposing them to the kinds of tools and technologies that will be available.

This is probably not a practical idea, but think about a program that would give every young person a Blackberry and give them access to learning how to use e-mail and operate in a 21st century world. So much of what people need to do is to understand how the world is going to operate, how decisions are going to be made. And while we certainly need math and science, we also need people just to have exposure to the world, and any way we can help our young people gain that I think will be very advantageous.

Ms. FURCHTGOTT-ROTH. If I could add, USTR keeps track of the documents piracy and the piracy by other countries, but they do nothing. We do not do anything, they do not do anything.

Senator KENNEDY. May I continue to proceed?

The CHAIRMAN. Yes.

Senator KENNEDY. Let me ask you a little bit, just looking at that chart over there on the 50th and 10th. I mean, as somebody who has been interested in the minimum wage over a long period of time, I think what we have seen is—I was just reading Fortune

Magazine about a week ago, and in the back part of it they have the list of all the profits, the business top 500 at 15 percent profits on this. We have enormous increase in productivity, incredible accumulation of capital in these major companies and corporations. That is mentioned, I believe, in your earlier testimony. If not, we have got the documentation about how people are working longer, if you take the number of hours as compared to where we are in the industrial countries, we are working longer, we are working harder. We have increased our productivity rather significantly over this period of time.

I do not know how much more in terms of the productivity, got both members of the family working now which added to family both income and productivity. I do not know how much more we are going to be able to squeeze out of the American workers, when you have both the accumulation of capital and you are getting these very sizable profits, and we are looking at sort of globalization. How are we going to make sure that whatever burden we are going to be bearing in this whole kind of an expanse is going to be sort of evenly shared here in our economy?

Mr. BERNSTEIN. I think that is a key question, because as you suggest, the growth of the economy over the past few years has been very unevenly shared. We have actually posted some decent growth rates, and our productivity growth has been really quite spectacular. Yet, as I show in my testimony, year over year the wage of the blue collar worker in manufacturing or nonmanager in services has fallen consistently year over year for every month for the past 12 months. So here we have productivity growing, yet income is falling. Every year between 2000 and 2003, the most recent data we have for the median family, productivity grew, and in 2002 and 2003 the economy expanded, yet median family income fell in real terms.

As you suggest, over the period that you see wage decline—and the slide up there is for men—family incomes were constrained by, of course, by that decline in real hourly wages for men, but that decline was counteracted in large part by so many more women going into the workforce working more hours per year. And that is what made the difference in terms of middle family incomes. That is how they got their incomes up, by working more to compensate for the decline in male wages. So one of the answers to your question is that we have to do everything we can to reconnect the growth in this economy to the living standards of middle income families and to the wages of those workers in, say, the bottom 80 percent, who are falling behind even as the economy expands.

Now, how do we do that? You mentioned the minimum wage. Well, that is a great example of one way to lift wages at the very bottom of the wage scale, interestingly, and contrary to theoretical predictions, moderate increases in the minimum wage—and we have been doing that since the mid' 30s so we have lots of evidence—moderate increases in the minimum wage are not associated with employment losses. The last time Congress raised the minimum wage by legislation was 1996, so it has fallen considerably since then, probably over 20 percent in real terms.

So revisiting that issue would be a great way to boost the bottom. It does not do that much for the middle. For the middle there are

another set of policies that I argue would help connect the economy to middle income families living standards, and I elaborate on them in the testimony. In part they have to do with trying to reabsorb some of the risk that is inherent in a more global economy, strengthening pensions, strengthening health insurance, trying to lower unemployment, as well as, of course, providing workers with access to greater skills. I think that program would get part of the way there.

Senator KENNEDY. I understand now Britain is \$9.50 an hour. They are going to \$10 at the end of this year, and they have 1,200,000 children out of poverty with this. They have the second best economy in Europe, outside of Ireland. They are the number one. And they have virtually seen a decline in their unemployed, and it has had a very significant—I listen to Gordon Brown, who is the Chancellor of the Exchequer and probably the most successful Secretary of Treasury or Office of Management and Budget all combined into one, the most successful both economist. And he talks about the same point on certainly the low-income wages, and hopefully we will have a chance to do something about it.

Thank you, Mr. Chairman.

The CHAIRMAN. Thank you. I appreciate your being here, and your full statement will be in the record and the questions you have asked.

I am going to have some more questions for Mr. Bernstein on the chart that he has there, but I have to look up a couple of things before I can even phrase those. It just seems to me like if that is by wage percentile I am surprised that the 50th percentile varies from the 50th percentile.

Mr. BERNSTEIN. I am not sure I understand the question. The 50th percentile varies from the 50th percentile?

The CHAIRMAN. Yes.

Mr. BERNSTEIN. Oh. Why is it not always just 50 all the way across? Yes.

The CHAIRMAN. If it is the 50th percentile, why is it not the 50th percentile?

Mr. BERNSTEIN. Oh, okay.

The CHAIRMAN. And you are taking a very limited sample there and building fluctuation in, which has to stay that way by definition.

Mr. BERNSTEIN. No. This is a very typical approach in economics. See, if it were 1 year, yes, I would agree with you. Yes, in 1995 the 50th percentile is the 50th percentile, it does not change. But every year the median workers earns a different level of pay. The median worker is simply the worker right in the middle of the pay scale. That worker can earn \$10 1 year, \$11 the next year, and so that is what is driving the trend that you see here. We could have used average wages, it would have been the same story. The median is the 50th percentile in every year, but that level changes year to year.

The CHAIRMAN. Since everyone here is a statistician we followed that precisely.

[Laughter.]

I will ask some more questions, but on detailed ones—

Senator KENNEDY. You have to understand that our chairman is an accountant, the only one. So if you catch these, we always pay special attention because he always has some insights into these figures, and we learn that every day under our chairman. Thank you.

[Laughter.]

The CHAIRMAN. To get back to some of the more definite questions here, Ms. Furchtgott-Roth, in your testimony, you indicated that changing the Fair Labor Standards Act to allow for compensatory time and flex-time would serve as an incentive for increased labor participation by a number of nontraditional employees. Are there other laws or regulations or policies that we have, that if modified, would attract more individuals into the workforce?

Ms. FURCHTGOTT-ROTH. Absolutely. First of all, there is a large empirical literature that shows that lowering taxes attracts more secondary workers into the labor market because they get to keep more of what they earn, and in the charts that are in my testimony that I presented earlier, showing that countries with lower tax rates have higher—more people work, people work longer hours, that is borne out.

Second, current regulations make it very difficult for people to hire, small businesses to hire because of the paperwork. My husband owns his own small business. He has owned it for about 3 years. He tried to hire someone a couple of years ago, just an administrative assistant to help him. He got so much material from the IRS that he gave up. He decided he was going to do this on contract or do it himself. It is just impossible for small firms, very difficult for entrepreneurs to hire people and deal with all this paperwork, and that could be radically simplified.

Third, if health insurance was more easily accessible, if the association health plans were able to be expanded, if people could buy health insurance across States, that would make it a lot easier for small businesses to hire people also because a lot of people, given that we have the system where health insurance is connected with employment and we are probably not going to be able to get rid of that very soon, it is linked. Association health plans where associations could offer large groups to small businesses, group rates to small businesses, that would be another thing that would be very helpful in increasing hiring. So I would say those three things.

The CHAIRMAN. Thank you.

Ms. Erickson, did you have some comments on that? I appreciated your comment about how the workforce of the future might be relying on cyclical workers, where they are on 3 months, off 3 months.

Ms. ERICKSON. That is what our research finds, yes. People would prefer that as a way of working. We are finding all kinds of interesting arrangements coming forth, people who are working only for health care coverage for no wage, people who are working in a cyclical fashion, 3 months on, 3 months off, as well as more traditional kinds of job sharing and so forth. So that flexibility coming in and the health care options, one of the things I mentioned in my testimony is that health care remains the single unifying core value that we find when we survey the workforce. That is the one thing everybody is concerned about.

Beyond that, preferences vary all over the map. Some people want more risk in their arrangement, some people want less, more security, etc. And so other than health care, our research would indicate that the more flexibility we can provide for people to shape their own arrangements, the better it will be to attract nontraditional people into the workforce.

The CHAIRMAN. Mr. Bernstein, in your comments you made reference to needing a single payer insurance system. Can you expand on that a little bit?

Mr. BERNSTEIN. I was nodding my head when Ms. Erickson noted the concerns over health care. We talk a great deal about these concerns regarding workers who are—there is something like 45 million uninsured in our country. We have about half the workforce who does not even have a health care plan or is not participating in one. My view is that if we wanted to in one bold stroke tremendously improve the quality of employment in this country and significantly reduce the economic insecurity that I tried to stress was one of the downsides of a more globalized economy, not taking anything away from the extensive benefits, but that shifting of insecurity and risk onto the workforce when you have a more globalized marketplace could be significantly reduced with a health insurance system that in my view was—that was taken out of the workplace.

The costs and the inefficiencies to employers of having to provide health care to their workers are starting to be increasingly and glaringly evident and obvious. I think it is really dampening the ability of our businesses to compete.

If you look at some of the other industrialized countries that we compete with, they tend to have single payer health care systems, and these systems mean that they are spending in some cases about half as much of their economy on health care with outcomes on average about the same.

That does not mean that everybody is going to get better health care under this system. There are those who I think under a single payer system, particularly those at the very top of the health care distribution who would end up with care that was more closer to the average. But I believe that for many people, and not the least the tens of millions of uninsured, moving toward a single payer system based on expanding Medicare, which has a great record with low administrative costs and solid outcomes, we could achieve those goals that I have laid out.

The CHAIRMAN. Thank you.

To follow up on the question I started with, Ms. Furchtgott-Roth, there are currently laws, policies and regulations that have unintended consequences of discouraging labor force participation rates for people 55 and over and for women workers. Are there some of those and what would they be?

Ms. FURCHTGOTT-ROTH. I would say that there are three things, as I mentioned, the paperwork, the health insurance, which I agree with Mr. Bernstein needs to be separated from the workplace, but I would suggest separating it by having competition in the supply of doctors rather than having a universal health care system because the European countries that have these single payer systems, you have problems with waiting lines, rationing, lack of medical

equipment. And so even though it is universal, it is not that good, and you see a lot of them coming to the United States for health care. Also you see people from Canada, which has a single payer system, coming to the United States for health care.

Teacher certification is another thing that prevents older Americans and women from teaching and entering the workforce. Even though we need more teachers, experts without teaching certificates are not allowed to teach, and this would be a job that secondary workers would enjoy doing. It would fulfill a need in our community.

The CHAIRMAN. Thank you.

Now, we talked about adjusting to the change in demographics and the changing workforce by all of us, the employees, the employers, the policymakers need to make corresponding adjustments in our thinking about work and the workplace. What are some of the adjustments that need to be made? What are some things that we ought to be looking at? Ms. Erickson?

Ms. ERICKSON. I will start on that. First of all, we need to recognize that there is really a new life stage that will be available in the U.S. labor pool. If you think about it, by the time most of us trickled out the door, our parents were probably old. They probably felt old. They were probably ready to have a much easier life. By the time our children leave home, hopefully, we are not going to feel old, we are not going to be old. We are going to have 20 or 30 more years of healthy active life to contribute. It will be in many ways the first time in human history that we have had an adult nonchildrearing stage of life.

Think about what we can do with that. I mean it is an unprecedented opportunity. Everybody who has had the empty nest syndrome hit I think knows kind of the burst of energy that that can provide in terms of creativity and jumping back into new things. We are going to have a whole generational cohort that will have that sense of energy.

So part of it is for employers to think outside the box and forget some of the stereotypes that we have been wedded to, that people need to retire at 60, that is crazy. They are going to have 20 more years where they can contribute very, very productively to business. We need to stop thinking about traditional employment relationships where you are the employee, and we need to think about more flexibility and more contract and more ability for people to come and go in terms of different arrangements they would like to have. That kind of flexibility and customization is really at the core.

What I would say in sum is we need to get employers to stop thinking about equality in the sense of treating everyone the same, and think about fairness in terms of treating people flexibly but fairly.

Ms. FURCHTGOTT-ROTH. Right, yes. Yes, I would say that we do not know what is going to come up in 2015, 2025, 2035. We need to make sure that the workforce is as flexible as possible in order to deal with these things so employers can hire one person who wants to telecommute, or another person who wants to be contracted out, or another person who wants to work 80 hours a week, and just make it possible for people to balance their total sched-

ules, adjust their time, have comp time instead of overtime pay, or give them as much flexibility as possible because every individual needs his or her own tailored package, and we want to make it as easy as possible for that to happen.

Mr. BERNSTEIN. Well, I would like to take a slightly different view in the following sense. I think someone listening to much of our discussion would think that one of the goals of our group is to ensure that more people are working more hours as they get older.

I hope that I am doing what I am doing until I am in my 70s, 80s, whatever. I enjoy it. It is not physically taxing, and I hope I continue to have the opportunity to contribute in this way. But there are those, I think we could all agree, who ought to be able to retire in their mid 60s if they want to.

When I look at the employment rates, as other panelists have mentioned, of the group 55 plus and note that that is the only group whose employment rates have been rising over the past 4 years, and they have been rising steeply, I wonder just how much of that is voluntary people wanting to work more and how much of it is what I think we hear anecdotally is because they are concerned about their pensions, they are concerned about their health care.

Therefore, I would argue that one of the things we need to do to provide for the workforce of the 21st century is ensure a much stabler and more secure pension and health care system for the elderly. I would say especially pensions because I think Medicare provides a good health care safety net for them, but to make sure that the pension system that we have in place—and I am thinking largely of Social Security—remains as strong a safety net as it has been, so that when people voluntarily want to get out of the workforce—if they want to stay in they ought to be able to and we ought to enhance their ability to do so, but for those who want to or need to get out at traditional retirement ages, I think they ought to be able to.

The CHAIRMAN. Thank you. All very insightful comments, that brings to mind though the statement—I am sure this was meant to be humorous—and the statement went something like this: “Don’t retire. Did you ever notice that most of the people who die are retired?”

[Laughter.]

Of course, I think that was written by the same person that did the book about do not go to a hospital because most people who die, die in a hospital.

[Laughter.]

Thank you.

As you are probably aware, we are in the process of reauthorizing the Workforce Investment Act and will consider other legislation that is aimed at providing lifelong education and training opportunities for current and future workers. Because of the way the workforce is changing, we know that school is never out and learning cannot ever be over. Even in the same job people have to learn the new techniques that come along. Can you comment on the importance of training and skills acquisition to our future workforce needs, especially for the older and the nontraditional workers? Go ahead.

Mr. BERNSTEIN. I will start. Since you mentioned the Workforce Investment Act, let me say something specifically about that. I have noted and documented in an article for the American Prospect, with co-author Steve Savner, that some of the activities under that bill discovered a great combination that I will bet you all of the panelists here would agree with, that when local employers work with local training initiatives to identify future areas of skill demands and of future job openings, you have a much more successful training program than when you simply take people in and give them a set of skills that you think maybe they will need.

So I think what we ought to be contemplating in this type of policy is a closely-knitted relationship between those who provide workforce training and employers on the ground, again, with a local focus on future pockets of demand in particular communities. That way you link workers up with jobs. Just providing them with skills without jobs, they will be all dressed up with nowhere to go. Providing them with the skills they need for forthcoming jobs seems to me to be a great way to go.

The CHAIRMAN. Ms. Furchtgott-Roth?

Ms. FURCHTGOTT-ROTH. The Department of Labor already has One Stop Centers that bring together people who are looking for jobs and employers and training centers. These centers are really very important in training dislocated workers for new jobs. Training is really vital for the future, as we have seen. The returns to a college education are going up considerably. We need to make sure that our children are prepared for college, encouraged to go.

We need to make greater use of the community colleges and give people more flexibility over what training they can get. The idea of the personal reemployment accounts, where they would be able to pick where they would go rather than staying at the Federal Government training center. The Department of Labor spends \$10 billion on training, that is billion rather than million, and other domestic agencies spend another 5 billion. Many of these programs are wasteful and duplicative, such as we have WIA—WIA is Workforce Investment Act, WIA Adult, WIA Dislocated Worker, WIA Youth, and the Wagner-Peyser Employment Service systems.

So you go into one of these One Stop Centers, you can go to WIA on one side, Wagner-Peyser on the other. They do provide exactly the same thing. Last year only 200,000 people were trained at a spending level of 10 billion. That is \$50,000 per person, so this is just not an efficient way of doing this. It is really important that you are looking at reauthorizing this Workforce Investment Act and making changes, to consolidate some of these programs into one program, the WIA Plus Consolidated Grant Program, that will give each State a grant to provide training services, because we in Washington cannot say what each individual State needs. If we could take some of this money, give it to the States, let the State decide what kind of training is best for their particular mix of unemployed workers and new workers, then we would be a lot further along.

The CHAIRMAN. Ms. Erickson, did you have any observations on the Workforce Investment Act?

Ms. ERICKSON. Well, again, just to reinforce that the continuing education is certainly highly important. There almost are multiple

dimensions that we need to think about it in. Some of our key professions are coming up against very critical shortages, and granted, that is a small percent when you look at it in the overall total, but for example, the average age of a petroleum engineer in the United States today is 53, and most oil companies still have early retirement programs that allow those individuals to retire at 55. So we are about 18 months from having a significant proportion of our petroleum engineering capability in the United States retire.

The oil companies are preparing for that by looking for oil petroleum engineering capability in Indonesia and places offshore. That is a tragedy, and that comes about because we have not had the educational system that has brought enough people in the United States up through that particular highly specialized, small discipline.

So as we look at education we need to look I think at some of those leading edge capabilities which just by keeping them here keep our research facilities here, keep that intellectual capital development component of our economy vital, as well as the more broad-based training that we have been talking about so far.

The CHAIRMAN. Thank you.

Senator Isakson?

Senator ISAKSON. Thank you, Mr. Chairman. I deeply apologize for being late, so I probably should not even ask a question. So what I might do is just say amen to what Ms. Erickson just said.

I just left a hearing on the nuclear energy issue, and two panels, and the problem you talked about in terms of petroleum engineering is precisely the problem we have in nuclear energy. We have a workforce capital shortage of immense proportions. Having once chaired a State board of education, and looked at what all the problems and difficulties we were having, one thing I concluded was aside from all the things we needed to do in the educational institution to improve what we were doing, we needed in this country to start glorifying the right things, not sometimes the entertaining things. And by that I mean the professions and the jobs of the 21st century, and doing a good enough job of getting that attention to children early enough in their early years or their adolescent years so that they would know these careers even existed.

I think—and this is a comment, obviously, not a question—but, Mr. Chairman, for what it is worth, I think one of the things that we do not think about enough is providing the perceptions for our kids to be exposed to of what opportunities are really out there, and some of them do not ever get them because they grow up in a home where those perceptions are not there because it is a second or third generation of high school education or less and their environment or their economic status does not expose them to that. Obviously, it does not get exposed on TV or the media.

One of the things we have got to do is start selling the opportunities that America offers. Second, on your point about the exporting is exactly correct. I mean these companies are going offshore and they are going out to find these people because that is where the technical people are.

One last thing and this is also a comment, but I can get three things off my chest at once and it will be really good.

[Laughter.]

There are a lot of people that have great concerns about free trade and great concerns about the lower-wage countries and some of the jobs that have gone over there. And I would like some reaction from you all to this. I cannot help but think that the best thing for America in the 21st century would be these developing nations to start having the same pressures we have already had and addressed. If every country had a minimum wage, if every country had an OSHA, if every country had the amount of workforce protections that we have had, the base cost of them producing their product would rise and we would once again compete not as much on price but on quality, where I think we in this country would excel.

As an observation, I think one of the things open and free trade has the potential to do for us is to expand the horizons of those developing nations so that they begin to have the natural pressures we went through as a country in the first part of the 20th century that brought about the remarkable changes that we have had.

That is all I have to say, and that really was not a question, but any observations you all want to make are fine.

Ms. ERICKSON. I think the one observation perhaps we all would offer—we spoke about it a bit before you arrived—is just to add intellectual property protection to your list as one that is really critically important as well.

Senator ISAKSON. Agreed.

Ms. FURCHTGOTT-ROTH. And it is not just petroleum engineers that are getting to be in their 50s. The whole of the skilled trades, we have carpenters, we have—

Senator ISAKSON. Nurses.

Ms. FURCHTGOTT-ROTH. Yes, exactly, that whole group of trades, it is becoming less fashionable to go into those trades, and so the people there in their late 40s, 50s, people who repair air conditioners, people who fix heaters, that whole group of people and that kind of—we need to show people that this is a good area to go into, these are very high-paying jobs, relatively high-paying jobs, and these are good careers for apprenticeships and people who would want to do something like that.

Mr. BERNSTEIN. I appreciate your comments, Senator, and I would like to make three points. One is that I think you were talking in kind of a longer-term view, but I think it is important to raise that in the current economy there is actually a cyclical component to some of the problems you have mentioned. For example, the unemployment rates among computer programmers went from very low 1 and 2 percent rates, which is purely frictional—that means if you were a computer programmer in the mid 1990s you either had a job or were looking for a good one—to well below the average to well above the average, 5, 6, 7 percent in San Jose after the bubble burst. Those rates have yet to come down, so we actually still have an excess supply of these very workers that we were talking about being in short supply. But that is very cyclical. Over the longer term hopefully those workers will become reabsorbed.

But getting to your second point, it is more challenging to reabsorb them if we are competing with workforces with a similar skill set in other countries where their wages are one-tenth of ours, and certainly, one of the motivations for going and using those workers

either through offshoring or through H1-B or whatever, is because of their lower price.

In that regard I wholly endorse and think it is critically important your platform for trying to raise the level of the playing field a bit, and I think that is and ought to continue to be an integral part of our trade agreements. Whether those components of our trade agreements are enforceable or not and how we enforce seems to me a great area of inquiry.

Senator ISAKSON. You cannot force them, but I do think as those countries begin to realize some economic prosperity, relatively speaking, from actually being traders with America, the natural human tendency, as their plight in life improves is to seek the types of things we have in the United States of America today. I mean most of the stuff that we have in workforce protection evolved by worker pressures as the workers became more plentiful and as they became more economic—that is a natural phenomenon that will take place. We cannot make it happen through trade agreements because we cannot impose domestic law on a foreign government, but it is something that I believe the pressure in time will help us.

I agree with your comment on the cyclical nature. I will say this, having done a lot of seminars with computer based people who were out of work, which was a large component in my area where I live, metropolitan Atlanta area, one of the reasons we are working so hard on the Workforce Investment Act is getting some of these people and professions that went from a specialty to a commodity, who there might not just be those jobs any more, to get them to retrain rather than to continue to try and find what does not exist any more. I think to a certain extent that is what happened in technology, which is why the Workforce Investment Act is very important.

I know I have used my time now, Mr. Chairman. Thank you.

The CHAIRMAN. Appreciate your comments. That brings to my mind that my wife and I went into the shoe business at about the time Italians started making shoes, and at that time companies in the United States were importing these really cheap shoes. Inexpensive, I should say. No, they were cheap.

[Laughter.]

Everybody had to have them because they were so low-priced. Then Italians discovered what was happening in the shoe market, and as you know, today Italian shoes are the most expensive shoes. I still will not go with the best constructed, but they are the most expensive, and part of that is what has happened within the industry and with the wages.

And what Ms. Erickson said, that figure that I saw that is very distressing to me, deals with electrical engineers. A year ago in the United States evidently we graduated 59 electrical engineers who were born in the United States. We graduated a lot more than that but they were not born in the United States. So we are importing a lot of people to learn these skills, and then some of them stay on to use those skills in the United States. Some of them take back to other countries to put them in a better competitive economic position. It is kind of a worrying trend when we have less people

going into those things that need science and math. So we have to reverse that.

I wanted to ask one more question. Ms. Furchtgott-Roth, your testimony—and I appreciate the charts that you have, they are very helpful—but you made some comparisons particularly with the European workforce. Can you share with us some, capsulize some of the lessons that you think we can draw from comparing those European workforce data with our own, and perhaps even focus a little bit on nontraditional workers there as opposed to here?

Ms. FURCHTGOTT-ROTH. Yes. Well, Europeans have a higher rate of unemployment, shorter hours of work, stagnant job creation and stagnant productivity in GDP. Senator Kennedy did mention his conversation with Gordon Brown, the Chancellor, where he had talked about the growth in jobs in Britain. It is true jobs in Britain have grown, but they are all public sector jobs. They have not created any private jobs over the past 2 or 3 years.

Martin Bailey, Chairman of President Clinton's Council of Economic Advisors, has studied this issue carefully. A few months ago he published a book entitled "Transforming the European Economy." It is a very thoughtful book, and I have it right here. In contrast to people who say the solution for the United States is to increase taxes, to reduce inequality, raise the minimum wage and have more mandated benefits, he says the following: He says the current system in major European countries is fatal for employment. Wage rates for low-skilled workers are inflexible. Payroll taxes are very high and inflate company employment costs along with other employer mandates. Benefit levels paid to the unemployed and to many others on a variety of social welfare programs are kept high relative to after-tax wages and are paid for prolonged periods. This system discourages employers from hiring and workers from taking jobs.

And he goes through several recommendations for Europe, basically to make it more flexible, to reduce some of these mandates, to time limit some of the unemployment insurance benefits, basically to make Europe more like us in order to make it get the same levels of GDP growth, productivity growth, job creation that we have. So I highly recommend it, published in September by Martin Neil Bailey, former Chairman of President Clinton's Council of Economic Advisors, called "Transforming the European Economy."

The CHAIRMAN. Thank you.

Would anyone else wish to—Ms. Erickson?

Ms. ERICKSON. One comment I would like to add to that, I spoke about engagement, people's feeling of passion and excitement about their work. All the studies indicate that engagement levels, while very low in the United States, are even lower in Europe, that people's sense of passion for their work is very low in European countries. You can speculate why that is true. We believe from our work that it is for many of the reasons that were just said, the work is inflexible. The structures are rigid. The variety is not there, and people are turned off. And so a lot of the productivity challenge we have, I would even go so far as to say a lot of the education challenge we have is around getting people excited about work. Kids will get excited about learning if they feel like their parents are ex-

cited about the work they are doing. If we have parents who are turned off by work, what child is going to feel excited about preparing for the future of a work future that they are living in a home with an example of somebody who is dreading going out to that 9 to 5 job every day.

So in many ways, creating more excitement, creating more engagement with the work we do is to me the most relevant goal that we need to think through as we shape a variety of different approaches.

The CHAIRMAN. Mr. Bernstein?

Mr. BERNSTEIN. I think when you lump Europe all into one group and talk about this kind of Euro-sclerosis that Diana was referencing, I think you miss nuances that are very important. There are countries within Europe that have had very impressive job growth even with the set of protections that Diana was arguing against. Ireland is one case where they have had a tremendous IT boom. The Netherlands has also expanded employment and output. And by the way, in each one of these countries, their rates of productivity growth are analogous to ours, and in some of them, their levels of productivity are now comparable to ours. And that is one of the reasons why the OECD, the Organization for Economic Cooperation and Development, that looks at all these economies, has been very hard pressed to link the kinds of policies that protect workers in the workplace to the disappointing economic outcomes that we have heard about. There are lots of reasons why countries do not perform well, and it actually turns out that these social protections do not show up as one of them.

Importantly, at the same time, we focused only on the cost of these social protections. The benefits are quite deep. Child poverty in Scandinavia, in Germany, in France, are half of child poverty here. Not the market outcomes. Market outcomes, child poverty is about the same, but when they fiscally redistribute, their child poverty rates are about half of ours. They actually have more income mobility than we do, not less. So these are dynamic economies, and I think to ignore that is to I think reduce the argument to a level that is not particularly useful.

The CHAIRMAN. Did you have any further comments?

Senator ISAKSON. I was going to say, having just heard both sides of the argument with regard to that—I am a Swede and was in Sweden a couple years ago, which is one of those countries I imagine you were referring to in your last comment. There is a level at which workforce guarantees and regulation is healthy, and there is a level where it is suppressive and oppressive and demotivational, and that is where we have to be very careful as a country to never move to—and I can say this because I am a Swede—I think they got to that point. That is one of the problems that they have been dealing with.

So we have to be very careful. You want to have a safe workplace and you want to have a quality workplace and you want to have workforce protections, but you can mandate on business so much and you can carry it to a point to where its embedded cost is counterproductive, which is why we have congresses and why we have experts and why we talk about these things. But there is a balance. You can way too far on the regulatory end.

The CHAIRMAN. Thank you very much.

I want to thank the witnesses for their testimony and the questions that they have answered. The record will stay open for 10 days. You can expand on any of the comments that you have made or observations that you have on anything that has been said here today. We also may be submitting some additional questions to you, ones that are very specific to your testimony, we usually reserve for outside of the hearing itself that allows us to make more detailed comparisons. So we will get into some more specifics on some of the countries that were mentioned and other things to, and we will be open to any other ideas you have for how we can get the workforce ready for tomorrow's challenges and opportunities. Thank you very much.

The hearing is adjourned.

[Additional material follows:]

## ADDITIONAL MATERIAL

## PREPARED STATEMENT OF SENATOR ISAKSON

Recently, economist Robert J. Samuelson wrote that, "Our aging society is the central problem. Everything else is just a footnote." He was talking about the implications of an increasingly older American workforce on Social Security, but he could have been talking about the resultant lack of workers as well.

As the baby boomers approach retirement, our economy faces a serious workforce shortage. Within the next 15 years, it is estimated that 80 percent of the native-born workforce will be over 50 years of age.

However, beyond the graying of America, our biggest challenge lies in the changing skills our workers will need to compete in an ever more globalized economy.

We must embrace, not shy away from, this global interconnectivity. This interconnectivity provides a myriad of both challenges and opportunities. Our Nation's comparative advantage will no longer be simply confined to our natural resources or our manufacturing capability, instead it will lie with our Nation's people and their ability to invent, innovate, market, and create.

To that end, our next generation of workers needs us to provide them with flexible, top-notch 21st century training with tools to compete.

The fact that this next generation of workers will need skills that differ with those needed by the current generation is not new. Economic change is a fact, not an inconvenient new problem. Certainly, the agrarian workers of the 19th century would be lost in the factories in which their sons and daughters made their livings.

What may be new is the acceleration, the pace of change. This rapid pace of change results in a situation where workers cannot assume the job for which they train at age 20 will still remain when they turn 50.

Recently, one of America's most important businesses leaders, Bill Gates, told the National Governors' Association that American high schools cannot teach our kids what they need to know today.

Today's interconnected world makes it possible for people around the globe to compete and collaborate with American workers. In this light, Bill Gates' message is clear: the status of American education is inadequate to equip the next generation of workers to compete against those abroad who will have had higher quality educational opportunities available to them. I look forward to working with my colleagues to address this and other pressing educational challenges.

[Whereupon, at 11:38 a.m., the committee was adjourned.]