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THE OFFSHORING OF HIGH-SKILLED JOBS, PART II

MONDAY, OCTOBER 20, 2003

HOUSE OF REPRESENTATIVES,
COMMITTEE ON SMALL BUSINESS,
Washington, D.C.

The Committee met, pursuant to call, at 2:05 p.m., in Room 2360, Rayburn House Office Building, Hon. Donald A. Manzullo [chair of the Committee] presiding.

Present: Representatives Manzullo, Schrock, Velazquez, Udall, Davis, Bordallo and Majette.

Chairman MANZULLO. Good afternoon, and welcome to our second hearing on the offshoring of high-tech, high-paying American jobs. A special welcome to those who have come some distance to attend this hearing.

The U.S. economy has recovered from the most recent recession, but it has largely been a jobless recovery. In fact, in a recent article in the Washington Times yesterday, Paul Craig Roberts states that last month the U.S. economy managed to eke out a few new private sector jobs for the first time in 2 or 3 years. The jobs are low-paying ones, retail trained temporary help and building construction. These jobs do not pay incomes large enough to bear the Federal debt burden.

The latest issue of Business Week says this is due to sharply rising productivity in the offshoring of factories to China. That is, the recovery that we are ostensibly experiencing and the increase in the stock market is due to sharply rising productivity in the offshoring of factories from America.

Though productivity growth actually accelerated, boosting profits, companies sent production offshore even as growth returned, just as problematic as the offshoring of high-paying, high-skilled jobs. This has serious consequences for the long-term economic viability of this country.

According to a recent report by the Federal Reserve Bank of New York, quote, structural changes, permanent shifts in the distribution of workers throughout the economy have contributed significantly to the sluggishness in the job market, end of quote. It left out the world "global" in front of economy. What we are really seeing is a permanent shift in the distribution of workers throughout the global economy, everywhere but here.

At the information table in the back of the room, there are three articles that you will see dealing with the HSBC Bank in the United Kingdom. One article states that the United Kingdom has the possibility of losing one-third of its jobs offshore; one-third of

its jobs could go to places with much cheaper labor forces. And so what we are facing here in the United States, it is not just us; it is a worldwide exodus of high-paying jobs from productive, prosperous countries chasing the cheap dollar of cheap labor.

And just as the once thriving steel industry is a shadow of its former self, the U.S. is in danger of losing its competitive advantage in the technology sector. Andrew Grove, Co-founder and Chairman of Intel Corporation, agrees. He says that the U.S. dominance in key technology sectors threatens the country's economic recovery and growth. He says the software and service industries, strong drivers of the U.S. economic growth for nearly two decades, show signs of emulating the struggles of the U.S. steel and semiconductor industries.

When asked what he thought Silicon Valley would look like in 5 years, CEO Larry Ellison of Oracle Corporation replied, quote, more like Detroit than Silicon Valley, end of quote.

The United States has lost 2.8 million jobs in the manufacturing sector in the last few years. Most of those jobs have gone overseas and will not be returning. At the same time we have lost a half million jobs in the tech sector and are hemorrhaging more every day. Newspapers across the country run daily stories about the offshoring of U.S. jobs.

What I have in my hand here is a short list of companies that have announced in the last 30 days jobs moving overseas. And that short list is about 20 companies and, ironically, it includes Intel moving 1,000 jobs from the United States to China and India. And that is what really provoked its CEO and Chairman Andy Grove to pay attention to the fact that he readily admits that his company is part of the problem, but he wants to do something to try to solve it.

And if you look at this list, you will see thousands and thousands and thousands of jobs, white-collar jobs going overseas, chasing the cheap dollar in India, China, Malaysia, the Philippines. That is the reason for this hearing—because of this incontrovertible evidence that the United States is on the verge of adopting the economies of Third World nations. And this is shocking, but it is exactly what the National Association of Manufacturing [NAM] said when it talked about the loss of manufacturing jobs. NAM said if the hemorrhaging continues, the United States is going to have to get used to a lower standard of living.

Forrester Research projects that 3.3 million American jobs will be shipped overseas by 2015 with an accompanying $136 billion in wages in high-tech and service industries. Another consulting firm, AT Kearney, estimates that U.S. jobs worth $150 billion will be sent offshore in the same year, 2015. Even still Goldman Sachs predicts that up to 6 million service jobs could move offshore over the next decade. Six million service sector jobs could move offshore in the next decade.

To add insult to injury, even several State governments are sending call center and software design work overseas, and then they come to us complaining about the cheap imports.

All of this has long-term implications for the U.S. economy and the future direction of the country. What could be done in the short term to help stabilize the bleeding of these jobs? Congress needs to

quickly pass Crane-Rangel-Manzullo-Levin, H.R. 1769, which replaces the current FSC/ETI law with an exclusion from taxation of up to 10 percent of income for domestic manufacturers and producers. Once fully phased in, this bill would replace FSC/ETI with an effective reduction in the corporate tax rate of up to 3–1/2 percentage points or 10 percent for U.S. manufacturers manufacturing in the United States. The legislation gives our manufacturers a reason to stay in the United States.

The bill also applies to the high-tech industry, including software companies which would be incentivized to keep the software jobs here.

Let me be very clear on this issue. The House should not pass any package with an international tax component. Regardless of the merits of Chairman Thomas's bill, now is not the time to reward overseas manufacturing to the detriment of domestic producers. The Thomas bill simply gives companies more incentive to replace American workers with foreign labor. The Thomas bill will further encourage cheaper imports. That is not what we need in this country at this point. We need a way to encourage domestic manufacturing and production.

Wayne Fortun, president and CEO of Hutchinson Technology, has declared that but for the current FSC/ETI benefit or a similar benefit, he would have to outsource production to China, and Andy Grove again has further observed that the software and technology service businesses are under siege by countries taking advantage of cheap labor costs and strong incentives for a new financial investments.

Since 1994, the Chinese Government has kept its currency pegged at 8.28 yuan to the dollar. China has experienced economic growth, gains in productivity, a large export sector and increased foreign investment, all factors that would cause its currency to appreciate if it were allowed to freely move. Some economists estimate that the yuan is undervalued by as much as 40 percent.

The impact is not being just felt abroad. The overvalued dollar has caused the U.S. to be flooded with cheap imports. Import penetration has caused domestic manufacturers to lose market share against foreign products that have a government-subsidized price advantage.

I appreciate the tremendous work that Treasury Secretary Snow is doing with the Chinese Government to convince them that the marketplace needs to determine its current valuation, but more needs to be done sooner versus later. That is why I authored Joint Resolution 285 expressing the concern of Congress on this issue and encouraging the President to review and utilize all tools to level the playing field with respect to currency manipulation.

Lastly, I am concerned that our military has become almost entirely dependent on foreign sources of materials, components and production equipment. We have no independent strategic base in this country. We have held two hearings at least in this Committee to determine that, and another hearing was held just last week to try to demonstrate to the American people and to fellow Members of Congress the fact that the continuous offshoring puts this Nation at peril. It eventually could hinder our Nation's ability to protect

itself, and measures must be taken to shore up America's defense industrial base.

The full Committee hearing we held last week where witnesses testified that our national security is at risk due to continued and increasing reliance on foreign manufacturing for high-tech equipment expresses this, and this is why it is imperative Congress strengthen and fight for stronger "buy American" legislation. These provisions include increasing from 50 to 65 percent the amount of U.S. content required in major DOD purchases for the Buy American Act, and requiring defense contractors if purchasing new equipment to buy American-made machine tools, dies and industrial molds for major weapons acquisitions. And the Pentagon continues to fight us on this.

It was this Committee 2½ years ago that held an extraordinary 4½-hour hearing where we brought in the Chief of Staff of the Army and two other generals to show that the Army's order of 2.5 million berets had gone to South Africa, Romania, India, Sri Lanka, China, Canada and then the United States for manufacturing. And all the procurement experts said, well, those contracts are locked in stone, and we broke four of them because of the public outcry and the disgrace of using U.S. taxpayers' dollars to destroy U.S. jobs.

Six hundred and fourteen thousand nine hundred ninety-nine of those berets are sitting in a warehouse in Mechanicsburg, Pennsylvania. The other one I carry in my briefcase, which I don't have here now, otherwise I would hold it up as Exhibit A.

But that is where this inquiry all started. The United States Government is doing the same thing that many of the multinational corporations are doing. They not only are chasing low-dollar wage, but not looking at the long-term effect of it. It is hurting the domestic workforce and our fighting capabilities at the Pentagon.

It is crucial that the U.S. stop exporting jobs to other countries. Our continued prosperity depends on keeping jobs here. As a person who has supported every free trade agreement in this Congress and has been given numerous awards for his continuous efforts on free trade, I come from that position. This is not a free trade versus protectionist hearing today. It is far from it. It is a hearing on where the United States is going to go and whether we are going to have a standard of living that we are used to, or whether we are going to adopt the standard of living of the countries to whom we are exporting our jobs.

[Mr. Manzullo's statement may be found in the appendix.]

Chairman MANZULLO. I now turn to the Ranking Member Congresswoman Velazquez for an opening statement.

Ms. VELAZQUEZ. Thank you, Mr. Chairman.

In today's global economy, the movement of jobs and operations abroad has become a major factor affecting the manufacturing and technology sectors. Many companies are looking to markets overseas in order to remain competitive while others are driven purely by profit. As globalization has made it possible for economic, political and cultural systems to cross national borders freely, it has also caused some shift in the economic base of our country. It has

negatively affected U.S. jobs, both high-skill and blue-collar, causing them to move overseas.

Just look at our manufacturing sector, which has lost 2.4 million jobs since 2001. It is also predicted that 3.3 million white-collar jobs and $136 billion in wages will be lost to countries overseas by 2015. A large number of service sector jobs and small firms will have to readjust and compensate for these massive losses.

Many factors are pushing industries overseas. Today's U.S. Tax Code gives away billions of taxpayers' dollars in subsidies to companies that transplant their factories, outsource production and then hide profits in offshore tax shelters.

The current U.S. patent process is also impacting our ability to quickly develop new innovations that could stir economic growth. Many U.S. firms are being hindered by the slow process of receiving patents. Their competitiveness is threatened as they fail to see rewards for their innovations due to significant lags in processing time.

In addition, cheap labor costs are another incentive that results in the outsourcing of domestic industries. High-end service sector work is moving abroad into areas with weak labor laws and where products can be provided at 50 to 60 percent of the cost associated with making them here in the United States.

The high price of health care is yet another concern for U.S. companies. Rising health care costs have created hardship in the manufacturing sector, which has long been a leader in providing insurance for its workers. As health care costs continue to skyrocket, the fact that U.S. companies must compete with industries overseas that provide no health care for their workers, leaving them at a competitive disadvantage.

Flawed trade policies have also created challenges. Policies such as the GATT and NAFTA have cost domestic producers to lose market share to foreign competitors and encourage job dislocation and plant closings across the country.

Finally, a major issue in the decline of certain U.S. industries is the monetary policies employed by some of our trading partners. The artificially high currency levels of a few nations have forced flawed or cheap products into the U.S., further exacerbating our Nation's trade deficit.

It is quite obvious that the new age of globalization is taking a toll on our Nation. Many of these concerns must be closely examined and evaluated.

While tools like GATT do exist to reverse some of these inequities, the Bush administration to date has failed to bring these policies to bear on China, the worst offender.

We also must make revisions to the U.S. Tax Code to create incentives for American firms to remain in the U.S. versus the current system that encourages companies to move overseas.

As globalization becomes the norm of the business world, it is important that we carefully monitor its impact and take proactive steps to ensure that the effects on small businesses and our economy are not irreversible. Since small firms are the drivers of our economy, we must be sure to take their interests into account when reevaluating some of these policies.

We have watched the U.S. manufacturing sector decline, and now have new fears of a similar fate permeating the high-tech industry. It becomes clear that we must work to protect these vital sectors and our small businesses so that they remain competitive and strong. Only then can we look forward to an economic rebound in job creation where we need it the most, right here at home. Thank you, Mr. Chairman.

Chairman MANZULLO. Thank you.

[Ms. Velazquez's statement may be found in the appendix.]

Chairman MANZULLO. We are going to set the time clock at 6 minutes, more or less, and if you hear this [tap from gavel], your time is up. We will leave plenty of time for questions, and certainly I will leave plenty of time for your testimony.

Our first witness is Harris Miller. Harris is president of Information Technology Association of America, known as ITAA. He has quite a background. He worked on Capitol Hill and had been involved in—I am going to tease you, Harris; you have been involved in technology so long that you were here before the word technology was invented?

Mr. MILLER. Absolutely, Mr. Chairman. I take full credit for the creation of the term.

Chairman MANZULLO. There you are, but tremendous credentials, great background. We look forward to your testimony. Thank you.

STATEMENT OF HARRIS N. MILLER, PRESIDENT, INFORMATION TECHNOLOGY ASSOCIATION OF AMERICA (ITAA)

Mr. MILLER. Thank you, Mr. Chairman. It is an honor to be here before you and this Committee again, and also to testify before Congressman Schrock in 2 days. I was with him in another hearing on Friday.

ITAA represents approximately 400 companies in every aspect of the IT industry, and I commend you, Chairman Manzullo, for trying to bring some facts and rational analysis to what is understandably a very emotional issue.

I would like to leave five points with the Committee today. Number one, the global challenge to the U.S. IT software and services industry is very real.

Number two, however, the picture is not as dire as many of the inflammatory headlines indicate.

Number three, the U.S. IT industry currently runs a large trade surplus with the rest of the world in IT services, and a trade war in this area between the U.S. and the rest of the world would be extremely harmful to U.S. IT companies.

Number four, the way to meet the challenges globally is to run faster and jump higher, not to try to throw artificial obstacles in the hands of our opponents.

And number five, we—and by that I mean the IT industry, academia, IT customers, government and IT workers—need to collaborate on what I refer to as a new competitive reality program to identify and implement the best programs and policies to meet the global challenges to make the U.S. companies and their workers more competitive.

The multinational members of my organization know that fair competition opens tremendous growth opportunities, many of them are in the developing economies to which you referred, but they also know what it means to have unfair trade practices thrown in their path. To small IT companies, however, and to many IT workers, the meaning of global competition is not so obvious to business success and instead is quite alarming. That is why ITAA has been an early and often advocate for a better understanding of the offshore outsourcing phenomenon including educational seminars we have been conducting across the country, including one we will be doing in San Francisco tomorrow.

ITAA generally believes that outsourcing—— by that we mean trying to build and maintain IT work outside the company rather than in-house—is generally the most effective strategy for organizations to conduct their IT operations.

Outsourcing, however, is not necessarily the same as offshoring. Rather, offshoring is a subset of outsourcing. It is important to understand that companies may provide outsourced services on-shore, offshore or as becoming more frequent in some combination. The decision on which way to go is based on a variety of factors, not the least of which is the customer preference.

As you mentioned, Intel board chairman Andy Grove warned in a recent speech that without vision and action, large parts of the industry could go the way of the steel industry. As a native of western Pennsylvania who worked his way through college in part by working in a steel company, I know what economic obsolescence can do to a community and ultimately to the working lives of average people.

Globalization is creating a new competitive reality for employers, employees, government agencies and academia just as it has in the manufacturing industry for decades. It also is a phenomenon which draws together numerous public policy threats which many of you have mentioned already, Mr. Chairman and Ms. Velazquez, trade, business, immigration, education and training and retraining, protectionism, global tax policy and employment policy.

As a growing number of countries create the resources to compete for global IT business, particularly the business in this country and other developed economies, the U.S. IT industry finds itself in the difficult position of trying to respond to pricing pressure from abroad while maintaining a domestic policy tool.

We cannot legislate or regulate our way out of this perplexing situation. On the other hand, however, to do nothing, to do the Bobby McFerrin thing, "Don't Worry Be Happy", is to risk an ever-increasing number of knowledge worker jobs disappearing overseas.

So to remain preeminent in global markets, ITAA is advocating this new competitive reality program that will bring together all key stakeholders to prepare, number one, a detailed analysis of the situation; number two, a thorough examination of various policy and programmatic approaches; and number three, a specific plan of action to implement critical policies and programs. Such a program, rather than knee-jerk legislative or regulatory solutions, is the way to preserve global competitiveness.

What are the elements of the new competitive reality? First the trend toward offshore outsourcing is a cloud on a horizon, not a

hurricane sweeping everything in its midst. We need to keep our eye on this weather pattern and how it is changing over time, but we don't need to start boarding up our windows and stashing the patio furniture. The IT industry is facing new challenges, but it is not disappearing.

Over 10 million Americans earn their living in the IT workforce; 9 out of 10 of these workers are employed by businesses outside of the IT industry, contrary to common belief. They work for banks, for law firms, for factories, for stores and many small businesses. Eight out of ten of these jobs are found in small businesses, the major focus of this Committee's work, the firms arguably least likely to seek a global solution or to attract a global solution provider. Even the most doom and gloom analysts predict that over 500,000 computer specific jobs will move offshore in the next 10 years.

If we have seen any storm at all, it has been the perfect storm of the current depression of the demand for U.S. IT workers, the dot-com bust, the telecom collapse, the recession and the cutting in capital spending.

I am pleased to note, however, that there are indications by the U.S. Government and various analysts that spending on IT is improving. I don't want to diminish the action felt by IT workers who have lost their jobs or are in fear of losing their jobs in this country, but I also believe we cannot overreact to what up until now was just a short-term situation.

Certainly we know that much of this demand—and I know my time is about up, so I will try to finish up quickly—are being driven by the large corporate customers. They are trying to save costs. They are under pressure from their customers to save costs. So what we need to do is to focus in several areas: number one, that you and Congresswoman Velazquez both mentioned, education, training and retooling.

Number two, promoting free trade. We have the most open markets in the world, but too many other countries in the world do not have open markets. But I remind the Committee again we are currently running a $7.9 billion surplus with the rest of the world.

Number three, as Congresswoman Velazquez mentioned, new R&D investments, absolutely critical. We are falling way behind in R&D investments.

Number five, we must keep our own markets open and not get into a global trade war.

And number six, we must fix our global trade policy. There are too many factors, too many incentives to keep earnings overseas and not bring them back.

We are going through a difficult time, but it is also important to remember that the long-term trend is good for the U.S. IT industry and U.S. IT workers.

Thank you, Mr. Chairman.

Chairman MANZULLO. Thank you.

[Mr. Miller's statement may be found in the appendix.]

Chairman MANZULLO. Our next witness is Ron Hira, Ph.D. He is the chair of the R&D policy committee at the Institute of Electrical and Electronics Engineers, and we look forward to your testimony. This is your second time before our Committee?

Mr. HIRA. That is correct.

Chairman MANZULLO. That is great. Thank you for coming.

STATEMENT OF RONIL HIRA, Ph.D., P.E., CHAIR, R&D POLICY COMMITTEE, INSTITUTE OF ELECTRICAL & ELECTRONICS ENGINEERS (IEEE–USA)

Mr. HIRA. Thank you very much, Mr. Chairman. Thank you and thanks to the——.

Chairman MANZULLO. You might want to pull that mike a little bit closer to you. It would be a little bit easier there.

Mr. HIRA. That is the second time I had to do that. You would have figured I would have learned by now.

Thanks to you and thanks to the other distinguished members of the Committee, I am very pleased to be here representing the 235,000 U.S. members of the Institute of Electrical, Electronics Engineers USA, IEEE–USA. Our members are electrical engineers, electronics engineers, software engineers and so on and so forth. In my day job I also teach public policy at Rochester Institute of Technology.

Seventy percent of IEEE–USA's members work for private businesses, and 30 percent of those members work for small businesses.

Let me talk about outsourcing first. Our members are experiencing unprecedented levels of unemployment, and I really want to emphasize that this is unprecedented levels of unemployment. We have been tracking unemployment figures for our members for over 30 years with the Bureau of Labor Statistics, and right now computer hardware engineers are at 6.9 percent unemployment. Electronics engineer are at 6.7 percent unemployment. We would generally expect about a 1.5 percent unemployment rate for those occupations, not a 6.9 percent unemployment rate.

And just to give you some historical perspective, throughout the whole 1980s when general unemployment was as high as 9.5 percent, unemployment rates for electrical and electronics engineers never rose above 2 percent. So we are in a very different era right now.

And even engineering managers have become hit hard by the unemployment rates. They are now at 8 percent compared to their peer group managers and professionals at 3.5 percent. So if you are an engineering manager, you are more than twice as likely to be unemployed than if you were a manager in another area.

And let me say that these numbers are sometimes abstract, and let me make it a little bit more concrete. I was at the annual conference for the Society of Women Engineers 2 weeks ago in Birmingham, Alabama, speaking, and a number of people I met there were very concerned about job security. It was the number one issue in their minds, and these are experienced engineers working in R&D worried about whether or not they can hang on another 5 years in their companies so that they can get health benefits.

Also even at RIT, at my university, we are hearing students talk about this. I have a colleague of mine, a political scientist, Rhonda Callaway, who I was speaking with just on Friday, and she teaches a course in globalization, and it is a university-wide course. So everybody and all majors have to take this class in globalization. And she said one of her assignments was how does globalization affect you, and many of her students who are majoring in information

technology wrote, well, globalization is basically taking all of our jobs away, and they have a pretty pessimistic outlook on what is going to happen and what their careers will be like.

We believe that the trend toward offshoring of engineering jobs is a fundamental structural adjustment. This is not just the dot-com bust or the telecom bust. I have talked to enough engineers who were gainfully employed way before we had the dot-com bubble who are not employable now. So something is different about this, and it is not just attributable to that.

In fact, what we are seeing is that this offshore outsourcing since the last time I came and spoke has become institutionalized in corporations. There is a new job title. It is called global supply coordinator. So companies are figuring out how to manage this process of moving as much work offshore as possible.

Much of the discussion or policy discussion has been about whether offshore outsourcing is good or bad—whether you are a free trader or a protectionist. I think this is really the wrong way of thinking about offshore outsourcing. The real question is how are these displaced workers going to become reemployed, and what kind of jobs are they going to get. Will an analytical engineer with 20 years of experience and a master's degree retrain to become a nurse? And if so, how are they going to afford to be able to do that?

There is a widespread belief, almost a blind faith amongst people, that we will just go on to the next big thing. These are low-level jobs that are going offshore and the next big thing—and many people call it—will say nanotechnology is the next big thing. American workers are going to do that. There will be great economic benefits, lots of jobs created in that area.

I just want to caution people who think that that is going to happen—and I hope it does happen in nanotechnology—that we are not the only ones that are worried and investing on the frontiers of nanotechnology. I saw a recent study that showed that the U.S. is producing about 5,000 technical papers in nanotechnology every year, and the second leading country in terms of scientific and technical papers was China at 2,400, and then Japan was just behind that. And, you know, with the cost advantages and those technical advance capabilities in R&D, you know, will it be surprising if they don't capture lots of those jobs that are going to be created?

Something else that is affecting American engineers is the loss of manufacturing. More than 48 percent of engineers work in the manufacturing sector, and even though manufacturing is about 15 percent of GDP, manufacturing sector accounts for about 62 percent of all R&D that is done. As production moves overseas, will it be any surprise that that R&D follows that production and that R&D goes there instead?

So let me sum up very quickly with some policy recommendations. First off, we need to start to track what is happening. We don't know what the actual impact of all of this is yet. We need companies to give adequate notice when they plan on moving work overseas to both their employees and to the government so that we can plan for transitions for employees. Right now they are being blind-sided. We need real and substantial assistance for those displaced workers. We need to strengthen and enforce American worker protections for the H–1B and L–1 visas. Those are inadequate

right now, and they are accelerating the offshore outsourcing. And I will leave it at that. But let me just sum up and say we need a national strategy for dealing with this phenomenon. Thank you.

Chairman MANZULLO. Thank you very much.

[Mr. Hira's statement may be found in the appendix.]

Chairman MANZULLO. Our next witness again brings a very interesting personal perspective to what we have been discussing here for 3 years. Is that correct? We have been talking about this for 3 years, and about the loss of manufacturing jobs and all type of jobs, and we are not prophets, are we, Ms. Velazquez, but we certainly did see this coming for a long time, especially in my home town of Rockford, which has—Rockford, Illinois, which is the state of unemployment—state of unemployment of 11.5 percent. It is probably closer to 15 percent because the people have just fallen off the unemployment rolls.

We welcome Natasha Humphries, former software QA engineer at Palm, Incorporated. And we look forward to your testimony.

STATEMENT OF NATASHA HUMPHRIES, MEMBER, STEERING COMMITTEE, SILICON VALLEY CHAPTER OF TECHSUNITE.ORG, SANTA CLARA, CALIFORNIA

Ms. HUMPHRIES. Thank you, Mr. Chairman and esteemed members of the Committee. Thank you for this opportunity to hear my testimony today on behalf of myself as well as many other ex-Silicon Valley technical workers disenfranchised by the use of offshoring by Silicon Valley companies.

My name is Natasha D. Humphries. Immediately following my undergraduate studies at Stanford University School of Humanities in 1996, I developed an interest in computer software, landing my first job at Apple Computer, Inc.

Over the years I have continued to acquire new skills through classes, seminars and self-study in order to adapt to the fast-paced technological changes in Silicon Valley. As a senior software quality assurance engineer, I have over 7 years' experience testing U.S. and international software applications, most recently in the hand-held device industry. After more than 3 years of service, I was laid off from Palm, Inc., at the end of August 2003 due to a workforce reduction or realignment.

Palm, Inc. is the leading global provider of hand-held computing devices and operating systems for hand-held devices including both Palm-branded and Palm OS-powered devices. According to Palm's Form 10–Q SEC filing, dated October 14, 2003, Palm shipped over 22.9 million Palm-branded devices, and approximately 30.1 Palm-powered devices had been sold worldwide as of August 31, 2003, resulting in total revenues of $871.9 million in fiscal year 2003.

Since the dot-com bust a few years ago, Palm—as well as many other companies in Silicon Valley—have been struggling to reduce R&D and other costs in order to meet Wall Street's, as well as shareholders', fiscal expectations. Early in 2002, Palm's software testing organization definitively began an aggressive campaign to outsource all testing assignments to India and China. After securing bids for pay raises as low as $2 to $5 an hour, or $4,200 to $10,400 per year, executive management made the decision to outsource all testing assignments to software QA engineers in

India, achieving considerable savings of 50 to 70 percent on salaries alone. Pay rates of U.S. workers range from 30 to $60 an hour, or $63,000 to $125,000 per year.

In my role as senior software QA engineer and lead, it was my responsibility to review product specifications, develop product test support documents and milestone schedules, set up and manage the software defect tracking system, report defect metrics and testing status to QA management and U.S.-based cross-functional teams, and to manage the offshore team.

My software project was one of the first to use the offshore team in India. After several weeks of mounting project management difficulties, including but not limited to language and geographical barriers, cultural differences, downed e-mail servers, weak network and telephone infrastructure, immature software development knowledge, lack of familiarity with software and hardware products and IT engineering systems, I and a number of my colleagues forecasted protracted development and testing cycles.

Management quickly identified a solution for the last three problems. In order to build core competency of Palm's products, software development practices and IT engineering systems, the product software integration and test organization began sending in-house software QA engineers to train their counterparts in India from their Milpitas, California, headquarters. I was one of the designees and trained software QA engineers in Bangalore, India, for a period of 2 weeks in December 2002.

After 6 months the major problems began to subside, and the offshore team were rapidly advancing up their learning curve. Over a period of 4 months after returning from India, I met repeatedly with my software QA manager and director in order to ascertain the new direction of the organization and any new skill sets required to remain competitive in my position as the offshore team began performing more of my job functions.

I sought advice and approval for tuition-reimbursed course work in programming languages, for example, Java and C++; and scripting languages for automation testing, for example, Silk. At each individual organizational meeting, I was unable to learn any specific new requirements of my position and was discouraged to enhance my professional skill set either through poor direction or denied approval of course work.

The QA director always indicated that his organizational structure was in flux and that his strategy to increase the QA group's technical expertise in alignment with new business objectives would be revealed soon. Moreover, he assured the group that no one would lose their jobs to offshoring of work, although the majority of current assignments were already being tested in India and China.

In March 2003, however, I learned that new automation testing assignments had recently been offshored to a different vendor in India. Management quickly dismissed my job security concerns, stating that delegating the current job functions to the offshore team would provide more freedom to develop new technical skills. The veracity of these statements were doubtful, as I suspected I would be displaced by the offshore team, particularly after returning from a 10-day vacation in which my lead counterpart in India

directed the test effort in my absence without me having to work remotely while on vacation for the first time in 3 years. In preparation for my vacation, I provided detailed instructions to the lead in India, defining how to report defect metrics for team status reporting, how to manually correct queries that failed, when to send the status report Monday mornings prior to executive program review, and to which distribution lists.

When I returned from vacation in June, I was astounded to learn that my plan was flawlessly executed without a glitch. I recognized immediately that my time horizon at Palm as a senior software QA engineer was shortening, and that I may have engineered my way out of a job. My suspicions were confirmed when management failed to conduct an annual performance review in July 2003.

On August——.

Chairman MANZULLO. You have plenty of time, and you can speak slower. Okay. Go ahead. This is very dramatic. I want people to hear it. Take your time.

Ms. HUMPHRIES. On August 20, 2003, I was terminated from my position along with approximately 40 percent of my software quality assurance group, which represented 14 people. Although this number may not appear statistically significant, it is of import to note that we represented the talented few remaining after scores of layoffs over a 3-year period following the dot-com bust.

Most of the terminated QA individuals held senior positions and commanded a considerably higher annual salary in comparison to our offshore counterparts earning less than $5 an hour. Although most of the software QA engineers in India are master degree holders, Palm is only required to pay home country wages commensurate with living standards in India, which is 2 to $4 an hour.

According to my termination letter, Palm made a determination that the software project to which I was assigned had reduced or eliminated investment in the company. However, I have knowledge that the software project to which I was assigned is indeed in alignment with the company's business objectives and, further, represents a new platform on which development of all future software applications will be based. I have also received confirmation from anonymous sources within the company that my offshore team in India continues to test my software project following my departure from Palm.

Ironically, one of my peers in quality assurance was also separated from Palm in August during the 7th month of her pregnancy. She is a U.S. citizen from India, displaced by technical workers in her own home country. I learned recently from a former team member in the customer support organization that he, too, received notice last week that his employment at Palm will terminate at the end of this month. Although the notice indicated that the termination was due to the Handspring merger, he suspects the decision may be related to the recent outsourcing of customer support to India. An anonymous source reports that additional layoffs are expected as Palm increases its multisourcing efforts to companies in India.

Multisourcing is defined as companies increasingly doing business with multiple service providers in the same or different countries, based on the best skills for the best price.

A month following my departure from Palm, I joined TechsUnite.org, which is building an alliance of technical workers to raise public awareness and to protest offshoring, among other workers' rights issues. During TechsUnite meetings I have met many software engineers and IT workers who have been unemployed or underemployed an average of 18 to 24 months. Offshoring has created a devastating economic climate not just among Silicon Valley technical workers, but throughout the United States.

Although the public and media have recently faulted H–1B and L–1 guest worker visa programs for massive U.S. Job losses, companies have found a new back door and are circumventing H–1B and L–1 restrictions by directly offshoring large volumes of work directly to companies in India.

Offshoring will prolong the economic recovery period as the number of U.S. jobs quickly diminish over time. Rising unemployment numbers will further exacerbate local, State and Federal budget deficits since the taxable income base will be unemployment benefits, that is until the benefit period expires, usually 1 year.

Congress will need to work quickly to revise current legislation and enact new legislation with incentives to maintain high-tech jobs in the United States and create disincentives for companies to offshore U.S. high-tech jobs.

Chairman MANZULLO. Thank you very much.

[Ms. Humphries' statement may be found in the appendix.]

Chairman MANZULLO. Is this the first time you have testified before a congressional Committee?

Ms. HUMPHRIES. Yes, it is.

Chairman MANZULLO. You did a great job at it. That is unfortunate it is under these circumstances, but I appreciate your speaking up for the people of America that you represent.

Ms. HUMPHRIES. Well, I appreciate this opportunity. Sorry my voice is a little crackly, I am recovering from illness this weekend.

Chairman MANZULLO. There is some water there if you would like it.

Our next witness is Robert DuPree. Bob is vice president of government relations with the American Textile Manufacturers Association, ATMI. He has been with that organization prior to when I came to Congress in 1992, and it is a national trade association of the domestic textile industry representing companies that manufacture textile mill products, including thread, yarn and fabric for use in home furnishings, industrial products and other textile items in the U.S..

Bob, we look forward to your testimony.

STATEMENT OF ROBERT DUPREE, VICE PRESIDENT OF GOVERNMENT RELATIONS, AMERICAN TEXTILE MANUFACTURERS INSTITUTE (ATMI)

Mr. DUPREE. Thank you, Mr. Chairman. With your permission, I would just submit my written statement for the record and summarize some key points.

Chairman MANZULLO. The written statements of all the witnesses and all the Members will be made part of the record. Anybody wishing to submit—in the audience here wishing to submit a statement can do so within 10 days. It must not exceed 2 pages,

including attachments, and it must be at least 10-point type. Okay? Just get that to one of our staff, and we will make that a part of the record.

Chairman MANZULLO. Go ahead.

Mr. DUPREE. Thank you, Mr. Chairman. I had to check and think. I do have 11-point type on mine.

Mr. Chairman, I am Robert DuPree. I have been with ATMI for some 14 years now. I would like to thank the Committee, especially you, Chairman Manzullo, for your ongoing interests and your commitment to the manufacturing sector. Also appreciate your comments as well as those of the Ranking Member in your opening statements regarding offshoring, which I hope does become part of our lexicon in the future. It has become a phenomenon that has serious repercussions.

ATMI's members, you just described what we do. We represent large manufacturers. We represent small manufacturers. The good news from your standpoint, Mr. Chairman, is more and more of our members are eligible for your Committee's jurisdiction. That is the bad news, too. They used to be larger than they were. In fact, I was before you at the famous beret hearing a few years ago. One of my members was testifying. His employer is a small company in South Carolina. They just announced some layoffs again last week. So the problem still continues.

In light of your comments also on the FSC/ETI issue, I would point out that we only represent textile companies based on their domestic operations. If they have plants offshore, we do not work for that end of their operations. We do not collect dues from them either.

We employ some 435,000 workers in a variety of jobs. They range from highly skilled to unskilled. Let me emphasize the highly skilled aspect of our industry. We are not Norma Rae. Those days are long gone. We are a highly automated, efficient and modern industry. We employ a great many professionals with bachelor's degrees, with master's degrees. They are in such fields as textile chemistry, textile or mechanical engineering, polymer science, which I had to look up what that is exactly when I first heard of it.

We estimate that as many as 100,000 individuals in our industry, nearly one-quarter of our workforce, have college degrees. Many of these come from schools, from States, represented on this dais, Georgia Tech, North Carolina State University, the Institute of Textile Technology in Charlottesville, Clemson, Philadelphia University. These folks, when they lose their jobs, they have a hard time with retraining, and they are seeing their jobs go offshore; and they have a choice, either learn a new profession, which, if you have an advanced degree in some of these fields, is not easy, or go offshore. And that is not a fair choice for anybody.

Last June this Committee held a hearing at which ATMI testified regarding the damage that foreign currency manipulation has been causing our industry and the rest of the manufacturing sector. At that time we reported that the textile industry has lost over 200,000 jobs in the United States since 1997 largely as a result of Asian currency manipulation. The recovery that you mentioned in some sectors in your opening statement, Mr. Chairman, it has not

reached our sector at all, and we have tried to make that very clear to the government.

In fact, we regret to report that in the less than 4 months since your June hearing, we have lost over 20,000 additional textile jobs here in the United States, many of these, if not most, attributable to the same factors.

Mr. Miller, I believe it was, mentioned the perfect storm. We have experienced the perfect storm. Many of the restraints on imports have been lifted in 2002. At the same time, prices have been slashed through willful currency manipulation. In some cases prices per square meter have been cut in half by Chinese manufacturers.

We worked hard to remain competitive. In the 14 years I have been there, we have invested billions of dollars annually to try to retain our competitive advantage. We have tried to meet our customers' "just in time" demands. We have tried to, as our government has urged, establish trading partnerships with countries like Latin America, the Caribbean and Mexico so that we can sell our yarn and our fabric in those markets and have them come back into the United States under the duty preference programs that we have established.

Unfortunately, all of those have fallen to naught as a result of unfair and often illegal trade practices from abroad, particularly from China and other Asian producers. As a result, we have seen an unending wave of plant closings and job layoffs here in the United States. Our jobs are literally being shipped across the ocean.

I would note that when our companies lay off workers, close plants, file for Chapter 11 or shut down completely, as the case with some of the mills, they don't cite the various restrictions or burdens placed by our government. We understand that we have workplace safety and environmental regulations. We can deal with those, but the number one reason we are closing down plants is because of unfairly traded imports.

At the end of my statement, my written statement, is a chart showing that fully one-third of all U.S. textile jobs have disappeared since 1997. That is 220,000 textile jobs gone forever. Just in this year alone we have seen over 40,000 jobs gone, and where are they going? Where are those plants going? Where are those jobs going? They are not staying here. They are going to China, India, Pakistan, Bangladesh, Vietnam and other countries in Asia. Our companies have not pulled up stakes and moved to these countries. I want you to understand very clearly. We are still here, those that are still in business, but many of our customers have shifted to Asia, and they have taken many of our orders and our jobs with them. One way we can tell that is, frankly, by looking at not our exports of yarn, fabric and cloth, but, frankly, the exports of used textile machinery. When a plant shuts down, foreign companies have come in and bought used textile machinery and taken it over there, the same companies that have driven these companies out of business are now buying our used equipment. Therefore, we can consume less cotton, less wool, less man-made fiber made from plants here in the United States and many of your States as well.

Mr. Chairman, I do have some other comments in my written statement regarding currency manipulation. It is a subject you know well.

I also mention very briefly the impact on the defense industrial base. We supply some 10,000 different items to the United States military, and Federal law notwithstanding, it is inconceivable to us that the U.S. Government could stand by and watch this basic manufacturing industry erode, this key defense supplier to wither on the vine, so to speak, and let this business go offshore. Our military readiness needs a viable defense industrial base. We are part of that.

With that I thank you for this hearing. I thank you for your continued interest in our issues, and I look forward to anything you can do to help us get the attention this issue deserves.

[Mr. DuPree's statement may be found in the appendix.]

Chairman MANZULLO. Mr. Schrock.

Mr. SCHROCK. Thank you, Mr. Chairman, and thank you all for coming here today, especially Ms. Humphries.

My parents live in San Jose. I know Milpitas. I know Santa Clara very, very well. And speaking of that, I was talking to my 90-year-old father this morning and telling him we were having this hearing, and of course he cuts clippings like you can't believe and sends them to me because he thinks the only way I am going to succeed is if he does that. And most of the time he is right.

But he said, as an example, the last two Levi plants in San Francisco closed down, I think he said, last week, gone forever, and we are never going to get those things back. And that is very disturbing to him. It is very disturbing to me, because it impacts every person I represent and every person every Member of Congress represents. So it is an issue we need to start addressing and seriously.

I know one of you talked about military sources. I can't remember which one talked about military sources. Oh, Mr. DuPree. I was recently in Norway at a factory that is producing the new gun for the Striker. They got the contract. We have the best talent in the world in this country and the best technology, but they said—I said, how did you guys get it? And I wrote a list of what they told me they don't have. They don't have EPA. They don't have OSHA. They don't have lawsuits. They don't have labor unions. They don't have outmoded tech structures like we do; yet, it is the cleanest, safest place I have ever been, and I think it is our laws that we have created here that have caused some of these things to happen.

Trade agreements, yes, there are some real problems with trade agreements. I hear people say, well, we have got trade agreements. Well, we created the trade agreements. I think in some way we ought to be able to change those things so at least there is a level playing field.

When you said buying equipment, they are buying our equipment to take over there, too. They are buying it pennies on the dollar. So it is a lose-lose no matter how we look at it.

Mr. Miller, you talked about outsourcing versus offshoring, and help me understand. I think outsourcing is just the beginning of offshoring, unless I don't understand.

Mr. MILLER. Not necessarily, Mr. Schrock. A bank might decide that they are very good at doing money. They are not very good at managing their IT system, because it is very complex because it is constantly changing. They may choose an IT company across the street to come in and manage their IT department for them. That is outsourcing. That means they have closed down their internal IT department, but all the workers are U.S. workers. They just happen to work for an IT company rather than the bank. So it doesn't necessitate that the work goes to another country.

Mr. SCHROCK. Did I hear you say, too, you think this is a short-term situation? I hope you are right, but please help me understand why you think that is the case.

Mr. MILLER. I think the offshore competition is long-term. I have been actually giving speeches about it for 7 or 8 years, but no one wanted to listen to me because unemployment in Silicon Valley was 0.0 percent and people wanted to talk about H1Bs and L1s.

I think we have been relatively naive as a country for a long time in the IT space, believing that somehow, because we were so smart and so talented, that countries like Ireland and Israel and South Africa and Argentina and Mexico and Canada and India couldn't be smart, too; and it turns out they can be very smart. They can produce very capable IT workers.

We have been relatively naive the same way that the Detroit automobile industry was very naive in the 1960s when they used to think, well, no one is going to buy a Japanese car because Japanese cars mean low quality. And they woke up one day and they realized, in fact, the American consumers liked Japanese cars and they had 23 percent of the market.

So I don't think this offshore competition is short term.

What I believe is short term and I think people are overreacting to is we have had in the year 2001 about a 10 percent decrease in IT capital expenditure spending in this country; in 2002, another 6 percent. So spending on IT in this country dropped precipitously after the dot-com bubble and telecom bubble in the late 1990s. In 2003, most people think IT spending will increase by somewhere between 3 and 5 percent after those two major declines. I am hoping that, number one, that is true; and, number two, if it is true, that should have a positive impact on IT hiring. That is what I am saying I am hoping it is short term.

Mr. SCHROCK. Okay. But we hear a lot of IT stuff now starting to go to India, just like manufacturing has; and I am going to ask Dr. Hira about the nanotechnology. You know, we talk about the next big thing. But the next big thing is just the next big thing somebody offshore can come and try to take from us. They will send their people here to our universities with these visas you get that they are able to get to train them to go back and compete against us. And I just have—I just don't understand why we allow that to happen and why that continues.

Mr. HIRA. Well, I am not sure I have an answer for you. I am not sure why we do these and have these policies.

But we have been hearing about nanotechnology for some time as well as biotech and bioinformatics and what the next big thing is. Right now, nanotechnology is still in its infancy, but there are enough practical commercial applications to indicate that it will be

at least a sizable industry. The question is, are we going to capture that, especially if we don't have the manufacturing capabilities here and much of that work is done abroad as well as R&D being done abroad?

Mr. SCHROCK. I know my time is up. May I just make one more quick comment?

I noticed, you know, talking about textiles. When I was a student at the senior officer course at the Naval War College in Newport, Rhode Island, in 1984 and '85, we used to go to the clothing places in Fall River, Massachusetts, which used to be, they say, the garment production capital of the world; and all it is now is miles and miles and miles of empty buildings that are selling clothes that come from somewhere else. And it just didn't happen yesterday. It has been going on a long, long time; and if we don't start addressing it, we are going to lose every single thing we have got here that involves manufacturing.

Chairman MANZULLO. Thank you.

Ms. Velazquez.

Ms. VELAZQUEZ. Thank you, Mr. Chairman.

Mr. Miller, you talk about education, retraining and retooling, but how effective is this going to be when we are dealing with such an uneven playing field, where companies can lay off a worker making $10 an hour, which I might add is not that much more than what you would make at a fast food restaurant, and move it overseas for a $1.50, a quarter of our current minimum wage. How is it that education is going to fix this?

Mr. MILLER. Congresswoman Velazquez, if the only issue were dollars per hour that the people were paid, the whole industry would have disappeared already. The fact of the matter is it is much more complicated than that. For example, in a recent article in CIO magazine, the author pointed out that, because of numerous factors involved with sending work offshore such as cultural differences, telecommunications issues and some of the others that your other witness referred to, in fact, the differential between the U.S. Worker and the IT worker in India may be as little as 20 percent.

Then the issue becomes one of productivity. Is the U.S. Worker more productive? Does the U.S. worker do a better job for the customer, for the client? Then the issues become much more complicated than simply how much per hour.

The other thing that is important to note is that wages in these developing countries are going up fairly rapidly.

Ms. VELAZQUEZ. Okay. Thank you.

Ms. Humphries, can you please tell me how much a factor wages were when your job and other jobs were sent overseas?

Ms. HUMPHRIES. Well, I think clearly, in this case, education did not inform Palm's decision. It was pretty much the bottom line. We got laid off just before the end of their first quarter for the fiscal year 2004. So I think it was pretty clear especially the individuals who were targeted for layoff were the more senior members of the quality assurance group and so we commanded higher salaries. So, clearly, the issue here was the bottom line; and of course we got those innuendoes from organizational meetings as well as from the

director and the VP of product software. So they are interested in lowering their costs and returning to profitability.

Ms. VELAZQUEZ. Clearly, you disagree with Mr. Miller's assessment.

Ms. HUMPHRIES. I disagree with his assessment that education retraining is going to resolve this problem and stem the tide of offshoring.

Ms. VELAZQUEZ. Dr. Hira, do you think an explanation as to why these businesses did not fight harder for an extension of the high annual limits on H1B visas is that they have seen overseas outsourcing and now the H1 visas as the most effective way to circumvent our labor laws?

Mr. HIRA. I don't want to speculate on what is in the minds of industry lobbyists. To be honest, it is hard enough to figure out what I am thinking about first.

But let me just read you a quote from one of Mr. Miller's constituent members, TCS, Tata Consultancy Services, Executive VP from there. He says, our wage per employee is 20 to 25 percent less than U.S. Wages for a similar employee. Typically, for an TCS employee with 5 years experience, the annual cost to the company is 60 to $70,000 per year, while a local American employee might cost 80 to $100,000. That is the total cost to the company, and he is talking about H1B and L1 visa workers there. He says, this is a fact of doing work on site. It is a fact that Indian IT companies have an advantage here, and there is nothing wrong in that. He goes to say, the issue of that is getting workers in the U.S. on wages far lower than the local wage rate.

So this is one way that one of the leading firms that does offshore outsourcing uses the H1B and L1 visa to get a cost advantage and to ship more work offshore.

Ms. VELAZQUEZ. Thank you, Dr. Hira.

Mr. DuPree, in your testimony you mentioned that many of your competitors in Asia are utilizing sweatshop practices or even child labor. The administration, as you know, recently signed the Chile and Singapore FTAs. As stated in the agreements, each country commits to enforce their own domestic labor laws, whatever those might be. The agreements do not actually commit the countries to have labor laws in place or to ensure that their labor laws meet any international standards. If we are to pursue trade agreements with countries which do not have strong labor laws, don't you think that this approach used by the administration invites U.S. Companies to move offshore?

Mr. DUPREE. Congresswoman Velazquez, our industry has consistently urged that trade agreements take into account the disparity in labor laws between our country and the other countries. Textile companies will not go overseas looking for cheap labor, looking for substandard working conditions. Unfortunately, as Congressman Schrock mentioned, some of our customers are going overseas and when they go overseas, when they go offshore, they look for the cheapest raw inputs nearest to them. If they go to China, they will look for Chinese denim. They will not look for U.S. Denim.

But by all means labor standards, environmental standards, they are all part of the playing field. But as yourself and the Chairman

have indicated many times, it is kind of tough to compete with a 35 to 40 percent price break that these manufacturers are getting right off the top as a result of currency manipulation.

Ms. VELAZQUEZ. Thank you.

Ms. Humphries, as you probably heard in Mr. Miller's testimony, he stated that Congress should not legislate a solution to the outsourcing problem that we are facing. However, in the closing sentence of your statement you mentioned that Congress needs to work quickly to review current legislation and enact legislation with incentives, incentives to maintain high-tech jobs in the U.S. and create disincentives for companies to offshore U.S. High-tech jobs. Do you think that the problem is worse than what Mr. Miller is leading this committee to believe?

Ms. HUMPHRIES. Yes, Congresswoman Velazquez. In short, the answer is yes. I do believe that the current Tax Code promotes offshoring.

I had an e-mail forwarded to me recently that indicated that certain IT expenditures are, you know, or companies are giving tax credits for expenditures, and it makes no distinction between the American or foreign labor. So I think perhaps we could all benefit maybe if a think tank such as the Economic Policy Institute would create a study so we can find out comprehensively what should be the strategy to tackle this issue.

Ms. VELAZQUEZ. Thank you.

Thank you, Mr. Chairman.

Chairman MANZULLO. Thank you.

We had a remarkable hearing last year on the procurement of Army berets, and Congressman Bill Pascrell asked what I think was the Lincoln-Douglas question of the hearing, and I turned green with envy because I hadn't thought of it.

He asked one of the generals if the ostensible purpose of having our men and women in uniform wear the black beret was to promote morale, how does that happen when our service people take their hat off, turn it upside down and it says "Made in China"?

Now, this really is an emblem of what is wrong. There is nothing wrong with buying stuff in China, but with taxpayers' dollars? It wasn't a bargain to buy it there. But if the Army had been more sensitive, had DLA been more sensitive, they could have saved a lot of jobs. In fact, we took it upon ourselves to cancel those contracts.

But this is the name of the game. Get it at the cheapest price you can and don't look at the consequences.

And, Ms. Velazquez, when you and I got all over DLA and they cancelled the contract, we saved hundreds of jobs here in America in the fledgling textile industry. In fact, I was talking to one textile manufacturer who was in town, and he turned on a replay of that hearing. It was played several times. Each time we got more eloquent.

He turned it on and watched it at 11:00 at night, and this ran to 3:15 in the morning, and he said the thing was on all night. He said, that is the first time that any committee has ever taken on the government for this very thing that the people in the government accuse—if you want to use that word—the private sector of doing.

Then we thought that this was resolved. Then we found out that the government was going to buy Pakistani goat leather—that is right—on the basis that we did not have enough goats here in America to provide sufficient leather for the thousands of flight jackets that were going to be made. I mean, you go from sheep to goats in this Congress.

We put out a press release and raised Cain. We have found that the only way to get something done in this town is you first raise hell and then you ask somebody to be accountability for it. So we put out a press release about the Pakistani goat leather, and we talked to our resident experts on goats. Charlie Stenholm represents the goat capital of America. I raise cattle. I don't raise goats. I don't know anything about goat leather, but Charlie does.

Sure enough, as soon as we put out the press release, the communique came from DLA that they had cancelled the request for a proposal. They came into the office, and I can't think of the general's name at this point, but he produced this list, this old list that was included in the Federal regulations that superseded the Buy American and Barry amendment. These are regulations that superseded law, and no one had ever called them into accountability for that and their list of about 80 different items on there that they were automatically buying offshore. The general advised us and sent us a letter, and I take his word to be gold on it, that DLA is now in the process of taking every item listed on there that could have been bought offshore that is now capable or that would now be capable of being bought here in America.

And the abuse continues. We got through the Pakistani goat leather and we got through these hats, although maybe the Army can sell these to the Chinese when they have the Olympics. It would create bad morale. But what are you going to do with these hats that are sitting in storage?

When we encountered what is now an ongoing investigation, the GAO is studying the F–35 as to whether or not defense contractors are in compliance with the Buy American laws. It is simply for the purpose of accountability. We have got a hearing that is pending on that, although the date has not been set.

But the only reason I bring this up is the fact that, if we just start with acquisitions from the government—Ed, would you hand me the Blackberry and the case down there? Yeah. The Blackberry is made in Canada. The case is made in China. This is that leather case here that is given to Members of Congress, and this is made in China. Now, if the American people see how the U.S. Government is using their taxpayers' dollars to destroy jobs here at home, what type of example does that set for the private sector?

So that is why we have been having hearing after hearing after hearing as to why we can't use the procurement process as a means to level the playing field.

The second comment is this: When you are an American company manufacturing mostly in America and then you outsource, bring in parts manufactured overseas to be made part of the final American—final assembly or you outsource services, then the rules of free trade no longer apply. I want to tell you why.

If you read—if you read Adam Smith, you will find out—and I notice that I think, Mr. Miller, you quoted Adam Smith in there.

Adam Smith assumes this, that country A has the natural resources and the talent wholly within that country to manufacture item A as opposed to a second country; and then when you start mixing the cheap imports from a second country into what the first country is manufacturing, then the rules of free trade don't apply.

That way, you can't—in other words, you can't have it both ways. You can't have Congress getting upset and becoming protectionist, which it is—and I am not on the Phil English bill to slap a 27.5 percent import duty to Chinese goods because of a manipulation of currency. I think there are diplomatic ways to do that. Because I have a hard time with tariffs at all. But the industry brings it on itself.

And then you can't quote Adam Smith. I am just citing you that you cannot run a country based upon economic theory, not when we are having the tremendous job losses that we have.

So I have got a couple of questions here. Mr. Miller, it was you who made a comment that we will lose 500,000 IT jobs or—have we lost that in the past?

Mr. MILLER. There have been reports that have been somewhat hyperbolized in the media by Forrester and Gartner, others, some of which have been referred to by some of the witnesses today, about 3.3 million jobs being lost. All that I was doing was making the point that if you only parse that number, what they are really saying is only about 500,000 of those are IT-related jobs. It doesn't mean that is not a significant number, but I am just showing you how the hyperbole in this issue tends to outweigh the reality.

Again, I remind you, Mr. Chairman, that we run a $7.9 billion surplus in IT services and software. I can't speak for the textile industry. I can't speak for other manufacturers.

Chairman MANZULLO. Has that surplus being going down or up?

Mr. MILLER. It has been going up because the rest of the world is becoming a bigger consumer. If you travel around the world as I do, and I know you do, Mr. Chairman, and others, to countries around the world, many of the products you see in companies and in government offices have names that you would recognize because they are the same products and services you use here in the U.S. Many of the leading IT companies here in the U.S., household names like Microsoft and Oracle and Computer Associates and IBM and EDS and others, earn 40, 50, 60 percent of their income by selling abroad. Many of the largest outsourcing contracts, to go back to Mr. Schrock's question, that have been signed the last few years by major banks like Deutsche Bank, a German bank; ABN Amro, a Scandinavian manufacturing company, have been signed with IT services companies based here in the U.S., which means that is revenue coming to the U.S., helping to create jobs here in the U.S.

It is also interesting to note, Mr. Chairman, that the fastest-growing market in the world for wireless phones is not China. It is not the U.S. It is not Germany. It is India. India has suddenly become a huge opportunity. That means job opportunities for companies in the wireless industries, many of which are in Scandinavia, as we know, companies like Nokia and Ericsson and others, companies in Asia like Samsung, but also companies here in the U.S. like Motorola, and all the people who make components

that go into them. So that is why we see so many great opportunities around the world.

Now when those opportunities are cut off—for example, China currently discriminates against semiconductors that are sent into China. They have a different tariff rate than for semiconductors in China. That needs to be fought. That is an unfair trading practice. We believe it violates the WTO. It violates the spirit, and it hurts the ability of U.S. IT companies, U.S. semiconductor companies to sell into China.

But that is a clear problem that needs to be addressed. But China is a huge potential market. India is a huge potential market. Between the two of them, they are a third of the world's population.

Chairman MANZULLO. I think what bothers Members of Congress—in fact, I am the chairman of the American Chinese Interparliamentary Exchange. We go to China once a year, and the Chinese come here, and we have talked to the Ambassador several times especially on this currency imbalance. That is the fact that China and India should be building their economy based upon sales to people within their own country, in addition to, obviously, internationally. China is trying to build its economy based upon sales to the United States.

As the Ambassador said, you need to take a page from Henry Ford's book. I said, what is that? He said, well, the people that make the stuff should also be able to afford what they are making; and I said that was the secret to our success here.

That is what is particularly disturbing to us, in fact, as we—this committee held a hearing on currency imbalance a year and a half ago—in fact, even longer than that. Because we recognized the problems that were going on there. We don't have the solution. I wish we did.

Andy Grove is the first executive of that stature who has had the guts to raise the question, and he is not looking to government intervention. When he talks about the government has to have a policy, I think what he is looking for is the fact that the government needs to sit down—the government, we have to sit down with the industry and ask you this one question: At what point will we send so many jobs overseas that the American consumer will no longer have a job to buy the products regardless of where they are manufactured? That is—I don't expect you to have the answer to that, because that is a very difficult question.

Mr. MILLER. Again, Mr. Chairman, I can't respond for the textile industry; and you have a very knowledgeable witness here. What I can tell you is, if you look at the U.S. IT industry, even the most pessimistic hyperbolic suggestions that have come out of groups like Forrester and Gartner and, frankly, not too many people give those credibility because making 15-year predictions in this industry——.

Chairman MANZULLO. Well, look at this. This is Andy Grove. He says 500,000 U.S. jobs. Is this hyperbole?

Mr. MILLER. Because we have a major recession in the U.S. IT industry.

Chairman MANZULLO. That is not what he is talking about.

Mr. MILLER. I understand.

Chairman MANZULLO. This is the founder of Intel. I mean, this man is the grandfather of technology in America.

Mr. MILLER. I don't want to get into a fight with Mr. Grove. Intel is a member. What I am saying is, the U.S. Software and services industry, according to all the data from the Bureau of Labor Statistics——.

Chairman MANZULLO. Well, the Bureau of Labor Statistics, if I may interject at this point, doesn't know the difference between hyperbole and a hyperbolic curve. Let me tell you what they did.

Rockford, Illinois, is the tool and die center of the world; and we anticipated a year ago in April that the Fed thought that the recession was over. Somebody woke up in the morning and said, the recession is over. We heard they are going to raise the rates. So we got a hold of the Fed. Dr. Roger Ferguson came in, and we asked the Bureau of Labor Statistics to tell us how many people in Rockford, Illinois, were involved in the tool and die industry. They said 570, and we just choked. That is two of the thousand factories that are in Rockford, Illinois.

So all these government statistics, you can quote them on and on and on. But when I go home, which is very, very frequently, and I am in a parade, people come up to me and they hand me resumes. They are desperate. They are looking for work. They are looking for solutions.

Mr. MILLER. Well, I am just trying to answer your question, whether the entire industry is going to move offshore. The point I was trying to make, even in the most negative assessments it would still only be 3 to 8 percent of the U.S. IT workforce.

Now, as an association which represents American companies, I hope it doesn't get that high. I hope it stays more.

Chairman MANZULLO. Look what is going on in industry. The factory back home, they used to get a hold of the guys in the shop to draw up their engineering plans. Then they would get a hold of some local molders. And now this is so-called manufactured in the United States. What they do now is they contact their Indian engineer and then the Indian engineer sends the specs to a tool and die maker in Poland. The Polish export comes into the United States, and it is incorporated into an American product.

This product here is manufactured in the United States. If it sells for $100,000 and it shows up on the trade merchandise trade balance as $100,000, that could have $99,000 worth of imported parts in it and you would never know it because there is no government economic indicator that shows the amount of imported parts that go into the final manufacturing.

So we are becoming a nation of assemblers. That is why this problem is even deeper and more egregious than we anticipate. But I enjoy your spirit and didn't mean to pick on you.

Mr. MILLER. Just one other point, Mr. Chairman. You made the point about government, and you do have some hard choices in government.

Let me give you an example of the one case in New Jersey which got a lot of visibility when the New Jersey State government outsourced a call center and the company that they used in turn moved those jobs offshore. Because of public outcry, those jobs were bought back to New Jersey. But our understanding is the cost to

the State of New Jersey to bring those jobs back—and it was 9 or 10 jobs—was approximately a million dollars over 2 years, which is good because it saved the jobs. But, unfortunately, with the State governments being so tight, it is a zero sum gain, which means that that was a million dollars less to go to the child welfare recipients in that department. So they had to put money to save the jobs, less money to child welfare recipients.

I am not saying one is right and one is wrong.

Chairman MANZULLO. That actually would have been many dollars less because there would have been less jobs, and even the child welfare wouldn't have the money.

Mrs. Velazquez, go ahead. You wanted to interject.

Ms. VELAZQUEZ. Yes. Mr. Miller, when you spoke about China and you said that, in terms of the telephone or the wireless, that they were—that we needed to fight some of the inequities——.

Mr. MILLER. One specific problem we have now, Congresswoman Velazquez, they have a value-added tax—we call it a sales tax—on goods and services and products. The way they have established their value-added tax for semiconductor chips, the brains of computers and telephones and the Palm and all these devices, is that they have a differential.

If a semiconductor is manufactured in China and put into something, they charge a 3 percent value-added tax. However, if a company outside China imports—exports it to China because China wants to incorporate it into a product, they charge 14 percent. Which means that even though a U.S. company or a German company or a Japanese company might be able to produce the chip at the same price as the Chinese company, because the Chinese add that 11 percent differential it unfairly discriminates against semiconductors manufactured outside China selling to China. Therefore, that is an unfair trade practice and we believe it is in violation of all the spirit and the law of the WTO, and we believe that China needs to change that practice.

Another concern we have is——.

Ms. VELAZQUEZ. But it is up to us in terms of the U.S. Government to use the WTO and fight that inequity. So why do you think that we lack the will?

Mr. MILLER. There are geopolitical issues regarding Korea and other things that I wouldn't want to speculate on right now.

There is a similar issue, Congresswoman Velazquez, if we are going to list problems in China. They are considering as a government imposing a policy by regulation which, Congressman Manzullo, sounds a lot like the Buy America Act, so don't be offended, that basically says China would only buy software made in China; and they are trying to use national security reasons for that. They are trying to say they are not going to buy software products manufactured here in the U.S. or manufactured by German companies or French companies. We think that would be outrageous. That would be against the spirit of the WTO. It may not technically be against the WTO because governments do have the right, as Congressman Manzullo knows, to make those kind of distinctions.

Ms. VELAZQUEZ. So would you consider Mr. Manzullo's Buy American outrageous?

Mr. MILLER. We do not support Mr. Manzullo's provision or Chairman Hunter's provision. We think that the Department of Defense should have the discretion to make those decisions. We don't believe in making stupid decisions; and I agreed with Congressman Manzullo in a lot of specifics, that there are bad decisions made. But having an across-the-board policy we believe would really hurt the fighting man. Not only do we believe it, but the Department of Defense believes it, even more importantly.

Chairman MANZULLO. I want to get to Mrs. Majette, but we just found out that our government that is rebuilding Iraq ordered 37,000 AK–47s from a Jordanian firm. That probably incorporates parts made in Russia, I think Poland, the Czech Republic; and this at a time when the hundreds of thousands of AK–47s were found completely intact in caches.

We can go on and on about what our government is doing, but here is a lady that ran for Congress to do something about it. Mrs. Majette.

Ms. MAJETTE. Thank you, Mr. Chairman. I thank you for holding this hearing this afternoon, and I also want to thank the witnesses for coming to help inform us and helping to inform the American people about this very important issue.

I just got back into Washington about an hour before the hearing started. I represent Georgia's Fourth Congressional District, which is suburban Atlanta; and part of my district includes Stone Mountain, where I live. Mr. Chairman, I have a face to go with the number here, this 10,000 jobs lost to India. One of my neighbors had just talked to my husband and me over the weekend, being—having been downsized from GE because of the jobs being sent over to India, the call centers and the work that is being done over there. So it really does hit home when you have somebody that you know talking to you about these various issues.

But I would like to direct my first question to Ms. Humphries. Your testimony was very compelling, and I want to know if you have any suggestions or ideas about how we can make a difference. What we can do either legislatively or otherwise to keep this from happening again and again.

Ms. HUMPHRIES. Yes. I have been mulling that over and over the last couple of months, being unemployed, and trying to decide, you know, what possible solution I could suggest. I mean, obviously, we could revisit the tax code; and I understand some of the tax code changes that I was initially suggesting to some of my friends here during informal conversations that they would probably have impact on certain trade agreements. So I think all the parties with a vested interest need to come together at a table and discuss these issues.

Once again, I suggest maybe the possibility of a think tank so we can come up with a comprehensive strategy. I don't think it is just tax code. I think there is going to be some trade issues as well that we need to consider.

Ms. MAJETTE. With respect to education, you said at one point during your testimony that you were seeking additional training and that that didn't materialize. Do you think that that would have been something if you had already had that training or if that training had been made available to you that that would have

made a difference or do you think it would make a difference if here in the United States we are providing that kind of training or other kinds of training to help stem the tide? Or is it something else altogether?

Ms. HUMPHRIES. I think it is something else altogether. I don't think the retraining actually influenced Palm's decision to terminate a number of employees. It was just the latest round of layoffs. After all, I mean, per my testimony, we actually flew to India in succession, one after the other, to train our Indian counterparts, would suggest to me that obviously that they didn't have the training required to do our functions. But then after, you know, we were more or less asked to go over there and build their core competency is when they were able to perform our job functions. So I mean I am still in the process of retraining, so to speak, and acquiring additional skill sets so that I can market myself in Silicon Valley; and so I suspect I will be successful. But I don't think my job of programming skills would have assisted me at this point.

Ms. MAJETTE. I see.

I have a question for Mr. DuPree. What do you think we can do in terms of legislation or taking a different approach to this situation?

Mr. DUPREE. Well, Congresswoman, I think the main thing is to change the dynamic in Washington. For too long I think the solution or the answer that has been thrown out there for everything is, well, we need to have more free trade; and, as we have found in our industry, free trade hasn't equated to fair trade. We find it very disturbing, in a week where four of our companies announced layoffs or closures, Ambassador Zoellick is running off to Thailand to see about opening up a new round of negotiations with them.

I think we need to start looking at what can be done to promote U.S. Manufacturing. We need a U.S. Trade policy before anything, and that is something that we have tried to emphasize. We are not opposed to fair trade, but we are not getting it.

Ms. MAJETTE. I made a note of when you were testifying about making the comparison between Chinese denim and United States denim. Correct me if I am wrong, but is there a difference in terms of quality? If so, then wouldn't people still look for goods made from United States denim versus Chinese denim, regardless of the cost? I mean, it is almost like the difference between want to go by a Kia versus wanting to buy a Mercedes. The price doesn't matter if what you want is the Mercedes because of what you get for that.

Mr. DUPREE. Well, first of all, I will say that, without hesitation, that U.S. Denim is superior to others, because I work for them. And if they are watching I said that very emphatically. Unfortunately, we have seen, despite labeling requirements that are part of U.S. law to say where garments are made, whether they are made in the U.S., whether they are made abroad of U.S. inputs, including yarn and fabric, if you cut prices so much, the consumers, frankly, are having a hard time resisting that. When we see Chinese fabric going from $6.40 per square meter to $3.30 per square meter—those are rough figures off the top of my head—in 1 year, that makes the price of that final product so irresistible.

Of course, you have to have a job to be able to afford blue jeans; and that is the point that we have tried to make repeatedly. Not everybody can go to work at Wal-Mart to buy Wal-Mart.

Ms. MAJETTE. Yes, you are right. Thank you.

Mr. DUPREE. Thank you.

Ms. MAJETTE. I see my time is up. Thank you, Mr. Chairman.

Chairman MANZULLO. Mrs. Bordallo.

Ms. BORDALLO. Thank you very much Mr. Chairman. I would like to welcome the witnesses that are here.

I represent the territory of Guam. If you know where that is, it is a small U.S. Territory in the Pacific. I find it very troubling that companies are increasingly outsourcing high-skilled jobs overseas, particularly where the unemployment level is high. In my territory, unemployment is at 20 percent. Think about that.

Now, the Chairman, he has his black beret; and I like his story. I have my Navy MSC ships. The Navy has a policy that ships that are home-ported in the United States should be repaired in the United States. Well, they found a loophole. When a ship is sailing around in the Pacific area, back and forth, it is not home ported. So that allows them to do the repair work in foreign countries—Singapore, Japan—where the labor is so much cheaper. Meanwhile, people at the Navy ship repair facility, which has been privately outsourced recently, have been laid off in great numbers. I find that very troubling.

I want to ask Mr. Miller a question. That is, how do you feel about students who are looking at certain fields, and they are looking forward to getting ahead in this life—and we have certainly spent a lot of money in research and development. Our education system in math and science is excellent in this country, and we have created a culture that through hard work and study you are going to amount to something. So tell me, Mr. Miller, how do we convince students in the United States to continue to work hard, get an education in that particular field, if your field is electronics or textiles or whatever—how does our Nation face the future if there is no incentive for our citizens and students to advance our country's technological capabilities? Do you have any ideas on that?

Mr. MILLER. Yes, Congresswoman. It is an excellent issue, and it is something we deal with every day.

ITAA has had a focus on training in the U.S. IT industry for all the 9 years that I have been president of ITAA. Even in this downturn in the economy we continue to focus on it, and that is because of simple demographics.

Again, it is very tough when you are unemployed today, as Ms. Humphries, to look at longer term demographics, but the numbers are there. We are not talking about hypothetical. And, by the way, these numbers come from David Elwood, who was in the Clinton administration, not exactly a pro-business labor economist. He is generally considered a pro-labor labor economist.

But all of his projections say that the U.S. domestic workforce, because of the retirement of the baby boomers, people in their 50s and on, over the next 10 years we are actually going to face over this decade a massive shortage of IT workers, even if the economy continues to grow at a relatively low rate. He did not include in his

projections the fast growth that we are having currently in our economy.

These are based on data that he has put together presented also by the Aspen Institute. The Bureau of Labor Statistics, which, again, the Chairman obviously has no faith in, but, unfortunately, I don't have independent sources so I have to use the Bureau of Labor Statistics. Of the 10 fastest-growing occupations for the year 2010, the ones that they list, 8 of the 10 are in IT. They are systems analyst, data base administrators, desktop publishers, network systems administrator, systems software engineer and support specialists and software engineer. Those are the projections by the experts in the US Department of labor.

So what I see is these are great opportunities for young people. Get your IT education.

Yes, there are going to be ups and downs in our economy. We are going through a down time right now, and I certainly understand Ms. Humphries' discomfort. She has lost her job, and it is very frustrating. But these are people who already exist. The numbers are there, and I believe there is a great opportunity for IT workers in the United States.

Ms. BORDALLO. Well, I don't know that I totally agree with you, Mr. Miller. I think that there is going to be many more Ms. Humphries as time goes on, and that is sad.

Thank you, Mr. Chairman.

Chairman MANZULLO. Mr. Udall. But before—and then Mr. Davis.

Natasha, you have got to respond to that answer. He just said that it is a rosy future for people going into IT, and here you are imminently qualified and you have been searching for work for how long?

Ms. HUMPHRIES. Two months today.

Chairman MANZULLO. And how many of your colleagues are looking for work?

Ms. HUMPHRIES. The majority of them. One person, a networker, she did land a job 2 weeks after with Adobe.

Chairman MANZULLO. And then how many of your friends that got laid off are still looking for work?

Ms. HUMPHRIES. Twelve of them.

Chairman MANZULLO. I would think that, after that statement from those experts, that maybe those experts ought to come up with some job openings for these people so they can prove their forecast correct.

Mr. Udall.

Mr. UDALL. Thank you, Mr. Chairman; and, Mr. Chairman, thank you for calling this hearing. I think it is a very important one, and I think it highlights some real problems that we have going on today.

Let me say that, as a Member of Congress that has Intel in his district, a major Intel plant, my belief is that Andrew Grove is really—it is important what he is saying, and he is speaking the truth to all of us, and I think we have to listen. When he emphasizes this whole idea of cheap labor costs, I think this is an important part of it; and that is what my question to the four of you is.

Recently, I sat in on a briefing or I think it was a hearing with Robert Reuben, and he talked about the big challenge being to us that we had never faced as a country was the fact that there are now in India and in China labor pools about the size of the United States labor pool, 200 to 300 million people that have close to the same education and skill levels that we have had, and that this is an enormous challenge for us as a country. We have never seen it before in our history, where we have had those—the countries that are in that position to challenge us.

I would first like to just ask you, do you see it that way? Do you see this as a fundamental change in terms of the challenge we face? Mr. Miller, you have been talking about this for 7 or 8 years. Do you see that, first of all?

Then I want to ask my follow-up question here, if you could try to be quick.

Mr. MILLER. The answer is, yes, Mr. Udall, but I also see it as an opportunity. Just as it is a challenge in terms of less expensive labor, it is also a huge potential market.

Mr. UDALL. Go ahead.

Mr. HIRA. Well, I have an interesting vantage point since I am ethnically Indian and still have many cousins and relatives who live in India. I will just say that the IT employment situation there is great, so, you know, the employment situation is in a frenzy. It is very easy to get a job. People are switching jobs and so on and so forth, and lots of colleges are cropping up there. That is not the case here in the U.S.

Secondly, I am also hopeful that there is a potential market in places like India and China as they develop and start to consume these goods.

But there are a lot of things that are very high level that are moving offshore. Somebody mentioned—I think Mr. Miller mentioned the idea of wireless phones and so on and so forth.

I talked to an engineer who worked at Researcher Triangle Park in the North Carolina area who said that all of their 80211b, that is the Wi Fi that you get on your laptops and what not, all of the design and development was moved offshore to both Israel and India. It was a major U.S. Electronics company moving that kind of work.

So even if those markets develop, the question is, who is going to be designing for those markets? Will it stay here or will that work be done there? That is, I think, one of the concerns; and I—you know, the 3.3 million may well be hyperbole, but maybe it is not. I mean, we really just don't have good numbers right now. The reality is that stuff is moving offshore.

Ms. HUMPHRIES. Yes—in response to your question, yes, I think there has been a fundamental shift in the labor market, especially for high-tech jobs; and now it is a global marketplace. So this does present new opportunities for those who are on the offshore side as well as I guess new opportunities for those, depending upon your response to unemployment, if you decide to adopt a new skill set. But, clearly, if you are—if you went to school for engineering or computer science and that's about where you want to pursue your career, this is a serious, you know, obstacle to overcome now that

we have this global marketplace where companies are more concerned about the bottom line than preserving U.S. Jobs.

Mr. UDALL. Mr. DuPree.

Mr. DUPREE. I would actually have to differ just a little bit on comparing the labor pools. China has to find jobs for its workers. It is largely a state-subsidized industry. They have roughly 10 million textile workers to our 435,000 right now. They pay an average of 40 cents an hour. We pay far more than that, 12, $13 an hour, for our hourly workers, more than that for our college graduates and skilled workers. We do have a more productive industry, but they can throw all these people at us with their state subsidization, with their currency manipulation. It makes for a very unequal playing field.

India was another country mentioned. Yes, India has a potential market for us. We have talked about this before. There may be a lot of poor people in India, but there are about 200 million middle-class consumers that could by U.S. denim, U.S. jeans.

But we can't get our product into those countries like India because of their various nontariff barriers and tariff barriers to our products. This is something we have been complaining very forcefully about to the government. It is something that we are going to continue to point out when we submit our list of trade barriers each year. These nontariff barriers were supposed to have been eliminated under the Uruguay Round. Now we are seeing in the Doha Round proposals that, well, we might get to it later in future years and we will phase it in. So it is very frustrating for us.

Mr. UDALL. Which I—and I see my time's out, Mr. Chairman.

Just to sum up, I think that the point you are making is we shouldn't be entering into new trade agreements without doing something about the issues that have been demonstrated in this panel here today; and to head down that road of just saying new—the same old trade agreements aren't going to get us out of this hole that we are in.

Mr. DUPREE. Enforcement of agreements that have already been signed is so imperative to our industry. Many Members of Congress, when they considered China PNTR back in 2000, expressed concern about what impact will this have on the textile industry. They were assured that there is a safeguard mechanism that China has agreed we can use if there are surges of imports in decontrolled categories they can—the United States governments can do, can impose quotas and try to slow those down right away. They gave us that right. We just have to use it.

We have shown in some of the decontrolled categories imports have increased 750 percent in 18 months, and that is the wave of the future if we don't utilize the agreements we have now on the books.

Mr. UDALL. Thank you, Mr. DuPree; and thank you, Chairman Manzullo.

Chairman MANZULLO. Mr. Davis.

Mr. DAVIS. Thank you, Mr. Chairman. I apologize for missing a part of the testimony, but I have listened to the dialog as I returned from some responsibilities that I had on the floor.

I try and remain as optimistic about things as I possibly can, but someone just sent me an article out of the Chicago Sun Times that

says half the city's 20- to 24-year-old black men are jobless. I mean, that is—half is 50 percent. Of course, Chicago is a pretty big city, and so that is a lot of people.

I also represent a congressional district that in the last 35, 40 years has lost more than 140,000 manufacturing jobs. I can almost name them without even looking anyplace: Hotpoint, Motorola, GE, Sears Roebuck—just right down the line.

All companies that used to be—there used to be 10,000 people who worked in the location of my district office right now. I mean, there used to be 10,000 people working right there. There used to be another 10,000 people who worked about two blocks from where I lived every day.

I guess my question is—and I understand that there are job losses internationally, especially in manufacturing, that the losses aren't only occurring here in this country, but they are occurring in many other places, and we are becoming more technologically proficient every day. I am saying, whatever it is that you had that you could do five things with this month, you can take that same instrument next month, you can do 10. I mean, you can take a telephone now; and you don't have to buy a camera. You can take a telephone; you don't have to get a fax machine. You can take a telephone; you don't have to have an e-mail set up. I mean, you can do almost anything in terms of communication with one device or one instrument.

So I guess my question is, is there any possibility that technological proficiency is going to further reduce opportunities to work as opposed to increase opportunities to work? And is that a challenge? Is there any fear—is there any possibility that we may reach the point where there just aren't jobs, Mr. Chairman, to be found?

I mean, I remember the song we used to sing back when I was a young fellow about get a job. "every morning about this time she'd bring my breakfast to the bed acrying, get a job. So when I read the paper I read it through and through, but there is no work for me to do. Get a job." .

Can we be as optimistic as I would want to be as we try and make some projections for the future? I think, for example, that our economy is in the worst shape that it has been in since I have been observing it. But for the first time in the history of this country I am not convinced that we can suggest with any real sense of assurance that the quality of life for our children is going to be better than what it is for those of us who exist right now. So, my question, what does the future really kind of look like?

Mr. MILLER. Well, I at least am an optimist, Congressman Davis, in several regards. But, number one, I would make the point again going back to education and training that is critical. Let me just give you one example. This was pointed out recently in an article in Business 2.0.

Intel had 20,000 U.S. Employees in 1982. They have about 50,000 now. According to the education manager, however, one of the big differences is in 1982 all you needed was a high school degree in order to have some of these lower-levels jobs at Intel. Now, entry level applicants need at least a 2-year degree in applied science to hold the same job.

So that is why I think education and training continues to be so important; and, unfortunately, it does create a bit of a divide, Mr. Davis, which I think you are referring to for those who are not able to figure out how to get in this education and workforce.

My second point would be that productivity increases have become a bad word for Members of Congress and other people because what productivity has begun to mean is you can do the same with less people. But I think economists will tell you at a certain point you can only get so much productivity even out of information technology. And, as you can imagine, I am a great believer in information technology. At a certain point, for companies to continue to produce the goods and services that the American people want as consumers, they are going to have to start hiring again.

We did have some hiring in September. Whether it is a long-term trend or not, we don't know. I hope it is.

My third point is, again—I don't know if you were in the room or not at the time I referred to it—but the long-term demographics are that, because we have a huge baby boom group retiring over the next 5 to 7 years, people in that 50 to 60 age group, there are tremendous opportunities for young people coming along because we are going to have this massive retirement.

The most dramatic example, and admittedly it is a bit of an outlie, was the U.S. Federal Government where you have 30 to 40 percent of all U.S. government IT workers are within 3 years of retirement. When they retire, there is going to be huge opportunities to fill those positions. Now whether those positions are going to be filled by the U.S. Government actually hiring people in to the government or whether they are going to choose an IT company to outsource it to remains to be seen. That is a decision that the top leaders of the Federal Government are going to have to choose. But that is one example where you are going to have this massive retirement that is going to create lot of new opportunities.

Mr. DUPREE. Congressman Davis, if I could just respond. To answer your first question, I guess the future will be determined for our industry at least by how our government looks at future trade policy and other policies in the next 5 to 10 years. We have done everything we can. We have in fact, as you indicated, increased productivity.

Has that cost jobs? If you look at the long-term job picture within the textile industry, it was almost equal to the rate of attrition. Retirements equaled—as you had people retired, some of them were not replaced, so there was a very slow decline in job losses. In fact, the chart on page 3 of my testimony, that is actually very close to what was over the 10 years prior to that we were seeing—700 and some odd thousand jobs down to 650,000 jobs.

Yes, we are three times as productive per loom hour as we were in the 1970s. That was intended to try to give us a competitive edge over China and Asia and other producers that pay such low wages and don't have the standards we do. But, as we have seen, productivity can only do so much when you are undercut by 35 to 40 percent by price.

Mr. DUPREE. Just as one measure of the fact that—our employment drop has not been due to productivity. I believe about 6 years ago we were consuming approximately 11 million bales of cotton

annually. We are down to about 7 million bales of cotton annually. We are just not doing the business. The orders are going offshore.

Chairman MANZULLO. All right.

Mr. DAVIS. Well, thank you very much. I used to pick some of it when I was a kid. It is not the best job in the world.

Thank you very much, Mr. Chairman.

Chairman MANZULLO. Thank you, Congressman Davis.

I want to thank each of you for—first of all, for being extremely well prepared. There wasn't a question asked that one of you said, can I get back to you. It is so refreshing. Even though we may disagree or pick on you on occasions—and, Mr. Miller, we are challenging you, not picking on you, you know that—very good preparation, very good answers. And it just goes to show the complexity of the issue.

At one time knowledge was discovered. Today it is invented. It is a different era that we are living in. We have to think differently because of the challenges that are presented to us.

Each of the Members of Congress up here represents his or her congressional districts. We are creatures of the districts that we represent. That is the constitutional framework. The area that I represent obviously is involved in heavy manufacturing. My father was a master machinist and then a master chef and a master butcher and a master carpenter, and always a master father, and we grew up knowing what the sweet smell of machine oil was. We just presumed that people—that the rest of us here know what it is, but probably only about 40 to 50 congressional districts have an intense manufacturing base, and so we have to operate on the basis that we need to get people informed as to what is happening.

When we started holding these hearings on manufacturing almost 3 years ago, there was some interest in what we are saying. It really wasn't until February of this past year when Business Week came out with what I consider to be the seminal article, the offshoring of our service sector jobs, where other Members of Congress started waking up and saying, hey, just a second, we are losing those industries even though we have no manufacturing in our congressional district.

So we are in a position where we can see the tremendous loss that is occurring in the—and how perplexing it is that the stock market can be going up when we don't have any jobs. But the answer to that is easy. The jobs that are being created are overseas. The reason that profits are increasing in the stock market is because of cutting jobs here and outsourcing them overseas in order to increase the demand of the stock.

The complexity of the problem that Mr. Grove raises is even more significant than we think. There is a book called The Loss of Shareholder Value—The End of Shareholder Value by Allan Kennedy, written in 1999. He is going to be a witness here at some time. We are trying to figure out his schedule. But in that book he talks about the bubble, and he talks about the fact that American companies, the longest-range plan that most of them have is 3 months, and that is the comment on the next quarterly earnings. That is as far as it goes, and that the name of the game is to increase the value of the stock to get it to the highest point possible.

And he also talks about the changing definition of the word "profits." we are all capitalists. I am to the core on it. But he raises something very interesting in that book, and that is the redefinition of the word "profit." at one time profit meant a reasonable profit, a respectable share of the market, a workforce that was happy, compatible, but nowadays profit is you have got to make more money than the next guy. You have to be number one in order to call yourself successful, and in the race to be number one, it has created a panic of people moving offshore because no one is thinking long range about what is going to happen when there aren't enough people left in the United States that have jobs in order to buy the things that are out there being manufactured.

If the emerging markets are in India and in China, then those people there should be paid enough money at their wages to buy their own stuff. That is the problem with China. But if they were paid enough money, then they wouldn't be competitive in order to undermine the jobs that are in the United States.

Something has got to balance. Does that bring about a government solution? I doubt it. Who wants to get involved in something like that? But there has to be a rethinking.

Mr. Grove, as far as I am concerned, is leading the charge, because he is asking that question, how much of this stuff do we offshore before the country pays such a horrific price for it that the Nation cannot recover from it?

Again, thank you for your testimony. You have been great witnesses. Appreciate your time, and this hearing is adjourned.

[Whereupon, at 4:06 p.m., the committee was adjourned.]

Opening Statement
Chairman Don Manzullo
October 20, 2003

The Offshoring of High-Skilled Jobs, Part II

Good afternoon and welcome to our second hearing on the offshoring of high-tech, high-paying American jobs. A special welcome to those who have come some distance to attend this hearing.

The US economy has recovered from the most recent recession, but it has largely been a jobless-recovery. The latest issue of BusinessWeek says it's due to sharply rising productivity and the offshoring of factories to China. Although productivity growth actually accelerated, boosting profits, companies sent production offshore even as growth returned. Just as problematic is the offshoring of high-paying, high-skilled jobs. This has serious consequences for the long-term economic viability of this country.

According to a recent report by the Federal Reserve Bank of New York, "structural changes – permanent shifts in the distribution of workers throughout the economy – have contributed significantly to the sluggishness in the job market." They left out the word global in front of economy. What we are really seeing is a permanent shift in the distribution of workers throughout the GLOBAL economy – everywhere but here.

Just as the once thriving steel industry is a shadow of its former self, the US is in danger of losing its competitive advantage in the technology sector.

Don't take my word for it. Andrew Grove, co-founder and chairman of Intel Corporation agrees. He says that the US dominance in key technology sectors threaten this country's economic recovery and growth. He says that the software and service industries – strong drivers of the US economic growth for

nearly two decades – show signs of emulating the struggles of the US steel and semiconductor industries.

When asked what he thought Silicon Valley would look like in five years, CEO Larry Ellison of Oracle Corporation replied, "more like Detroit than Silicon Valley."

The United States has lost 2.8 million jobs in the manufacturing sector in the last few years. Most of those jobs have gone overseas and will not be returning. At the same time, we have lost 500,000 jobs in the tech sector and are hemorrhaging more every day. Newspapers across the country run daily stories about the offshoring of US jobs. What I hold in my hand [WAVE SPREADSHEET] is a short list of companies that have announced in the last 30 days jobs moving overseas.

Forester Research projects that 3.3 million American jobs will be shipped overseas by 2015 with an accompanying $136 billion in

wages in high tech and service industries. Another consulting firm, AT Kearney, estimates that US jobs worth $150 billion will be sent offshore in the same year, 2015. Even still, Goldman Sachs predicts that up to six million service jobs could move offshore over the next decade. To add insult to injury, even several state governments are sending call center and software design work overseas.

All of this has long-term implications for the US economy and the future direction of the country. What can be done in the short term to help stabilize the bleeding of these jobs?

Congress needs to quickly pass Crane/Rangel/Manzullo/Levin bill, HR 1769, which replaces the current FSC/ETI law with an exclusion from taxation of up to 10 percent of income for domestic manufacturers and producers.

Once fully phased in, this bill would replace FSC/ETI with an effective reduction in the corporate tax rate of up to 3 ½ percentage points for US manufacturers. This legislation gives our manufacturers a reason to stay in the United States. The bill also applies to the high-tech industry, including software companies, which would be incentivized to keep software jobs here.

Let me be very clear on this issue: **the House should not pass any package with an international component.** Regardless of the merits of Chairman Thomas' bill, now is not the time to reward overseas manufacturing to the detriment of domestic producers. It simply gives companies more incentive to replace American workers with foreign labor.

Wayne Fortun, President and CEO of Hutchinson Technology, has declared that but for the current FSC/ETI benefit or a similar benefit, he would have to outsource production to China.

Andy Grove of Intel Corp. has further observed that the software and technology service businesses are under siege by countries taking advantage of cheap labor costs and strong incentives for new financial investment.

Since 1994, the Chinese government has kept its currency pegged at 8.28 yuan to the dollar. China has experienced economic growth, gains in productivity, a large export sector, and increased foreign investment, all factors that would cause its currency to appreciate if it were allowed to freely move. Some economists estimate that the yuan is undervalued by as much as 40 percent.

The impact is not just being felt abroad. The overvalued dollar has caused the US to be flooded with cheap imports. Import penetration has caused domestic manufacturers to lose market share against foreign products that have a temporary price advantage.

I appreciate that Treasury Secretary Snow is working the Chinese government to convince them that the marketplace needs to determine its currency valuation. But more needs to be done, sooner versus later. That's why I authored Joint Resolution 285 expressing the concern of Congress on this issue and encouraging the President to review and utilize all tools to level the playing field with respect to currency manipulation.

Lastly, I am concerned that our military has become almost entirely dependent on foreign sources of materials, components and production equipment. The continued offshoring of U.S. high-tech industries could eventually hinder our country's ability to protect itself, and measures must be taken soon to shore up America's Defense Industrial Base.

We just held a full committee hearing last Thursday where witnesses testified that our national security is at risk due to continued and increasing reliance on foreign manufacturing for

high-tech equipment.

This is why it is imperative that Congress strengthen and fight for stronger Buy America legislation. These provisions include increasing from 50 to 65 percent the amount of U.S. content required in major DoD purchases through the Buy American Act and requiring defense contractors, if purchasing new equipment, to buy American-made machine tools, dies and industrial molds for major weapons acquisitions.

It is crucial that the US stop exporting jobs to other countries. Our continued prosperity depends on keeping jobs here. I look forward to the testimony of each of our witnesses. I now turn to the Ranking Member, Congresswoman Velazquez for her Opening Statement.

House Committee on Small Business

"The Offshoring of High Skilled Jobs"

October 20, 2003

Opening Statement of Ranking Member Nydia Velazquez (NY-12), U.S. House Small Business Committee

Thank you, Mr. Chairman.

In today's global economy, the movement of jobs and operations abroad has become a major factor affecting the manufacturing and technology sectors. Many companies are looking to markets overseas in order to remain competitive, while others are driven purely by profit.

As globalization has made it possible for economic, political and cultural systems to cross national borders freely, it has also caused some shifts in the economic base of our country. This has negatively affected many U.S. jobs, both high-skilled and blue-collar, causing them to move overseas.

Just look at our manufacturing sector, which has lost 2.4 million jobs since 2001. It is also predicted that 3.3 million white-collar jobs and $136 billion in wages will be lost to countries overseas by 2015. A large number of service sector jobs and small firms will have to readjust and compensate for these massive losses.

Many factors are pushing industries overseas. Today's U.S. tax code gives away billions of taxpayer dollars in subsidies to companies that transplant their factories, outsource production, and then hide profits in offshore tax shelters.

The current U.S. patent process is also impacting our ability to quickly develop new innovations that could spur economic growth. Many U.S. firms are being hindered by the slow process of receiving patents. Their competitiveness is threatened as they fail to see rewards for their innovations due to significant lags in processing time.

In addition, cheap labor costs is another incentive that results in the outsourcing of domestic industries. High-end service sector work is moving abroad into areas with weak labor laws, and where quality products can be provided at 50 to 60 percent of the cost associated with making them here in the U.S.

The high price of health care is yet another concern for U.S. companies. Rising health care costs have created hardship in the manufacturing sector, which has long been a leader in providing insurance for its workers. As health care costs continue to skyrocket, the fact that U.S. companies must compete with industries overseas that provide no

healthcare for their workers leaves them at a competitive disadvantage.

Flawed trade policies have also created challenges. Policies such as the GATT and NAFTA have caused domestic producers to lose market share to foreign competitors – and encourage job dislocation and plant closings across the country.

Finally, a major issue in the decline of certain U.S. industries is the monetary polices employed by some of our trading partners. The artificially high currency levels of a few nations have forced a flood of cheap products into the U.S., further exacerbating our nation's trade deficit.

It is quite obvious that the new age of globalization is taking a toll on our nation. Many of these concerns must be closely examined and evaluated. While tools like GATT do exist to reverse some of these inequities, the Bush administration to date has failed to bring these policies to bear on China, the worst offender.

We also must make revisions to the U.S. tax code to create incentives for American firms to remain in the U.S., versus the current system that encourages companies to move overseas.

As globalization becomes the norm of the business world, it is important that we carefully monitor its impact and take proactive steps to ensure that the effect on small businesses and our economy are not irreversible.

Since small firms are the drivers of our economy, we must be sure to take their interests into account when re-evaluating some of these policies. We have watched the U.S. manufacturing sector decline – and now have new fears of a similar fate permeating the high-tech industry. It becomes clear that we must work to protect these vital sectors, and our small businesses, so that they remain competitive and strong. Only then can we look forward to an economic rebound and job creation where we need it most – right here at home.

Thank you, Mr. Chairman.

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Testimony of Harris N. Miller

President, Information Technology Association of America

Before

The U.S. House of Representatives
Committee on Small Business

A Hearing on "The Offshoring of High Skilled Jobs"

October 20, 2003

Introduction

Good morning Mr. Chairman and members of the House Small Business Committee. I am Harris N. Miller, President of the Information Technology Association of America (ITAA). I am delighted to participate in this important and timely discussion of offshore outsourcing and its impact on white-collar employment in this country. I commend the Committee, under your leadership, Mr. Chairman, for bringing some facts and rational analysis to what is often a very emotional issue.

No economic story is more important or more perplexing than the nexus of jobs, competition, and value creation for the customer. Throw into this mix the introduction of productivity enhancing technology, new business models, free trade principles, as well as the assortment of often entrenched interests represented in the commercial marketplace, and I believe you have set the stage for a discussion of major significance to the nation's future.

Offshore outsourcing is an issue that has caught the attention of the media, elected officials, IT customers, and ITAA members in a big way. These are the companies that have built the information technology industry in the United States. ITAA member firms provide computer software, services, e-commerce, hardware, communications and systems integration to meet today's business demand for efficiency, productivity, quality and customer service. Many of these firms often generate 50 percent or more of their sales in overseas markets.

If we look more closely at the ITAA membership, we find that the overwhelming majority of these firms are small businesses, many with annual revenues of $50 million

or less. Their customers could be located around the world, but most are likely to be found around the corner, over on Main Street, in the local industrial park, or in a nearby town. Beyond a passion for using information technology to solve customer problems, what these small companies share in common is the dream of becoming even bigger companies.

Times have changed, however. Competitors in India, China, Israel, Ireland, Canada, Mexico, Russia, Argentina, the Philippines, and other countries have become well aware of the American appetite for IT solutions. The ones that have been successful among these new global competitors have built a tech-savvy base of workers. They have invested in infrastructure. They have made a commitment to quality. And they have paid their dues by performing well on low-level tasks for clients in the US, Japan, Western Europe, Australia, and other highly industrialized economies.

Now they want to share in the dream.

The multinational members of my organization have an intuitive understanding of global competition. They know that fair competition opens incredible growth opportunities, many of them in developing economies. They also know what it means to have their way barred by unfair trade restrictions in foreign markets. And they realize that the only way to have barriers come down overseas is to keep our own domestic marketplace open to competitors from abroad.

To small IT companies, however, the meaning of global competition is not so obvious to business success and it may instead be quite alarming.

That is why ITAA has been an "early and often" advocate for a better understanding of the offshore outsourcing phenomenon. I gave my first talk on offshore competition soon after I came to ITAA more than eight years ago, but few paid attention, because in an era of incredibly rapid growth in the US IT industry, foreign competitors were a mere blip. Also, there was, frankly, a certain arrogance among US IT companies and government about our ability to continue our strong dominance in the global services and software markets.

As part of our educational efforts, this fall, we have conducted a series of press and analyst outreach meetings around the country on this topic, including at each senior officials from the U.S. Department of Commerce, providing a forum for candid discussion and exchange of views. This summer, we published a statement of principles about this important issue, which I have submitted along with this testimony. I have participated in numerous speaking events and media interviews on the subject. And we are conducting other projects in this area that will help educate our members and the larger business and customer community.

Before proceeding to a more detailed analysis, I would like to make two general points: while the times have changed, the fundamental business rationale for outsourcing is as old as the IT business itself. The roots of ITAA's more than four-decade history are

firmly planted in a tradition of data center outsourcing, remote processing and timesharing. Today, "timesharing" means buying two-weeks at a condo in Naples, Florida. In the earlier days of the computer industry, however, timesharing was a common way for government agencies and commercial customers to contract out and thereby gain access to the latest in computer, networking and software technology. In doing so, customers got their data processed and also controlled costs, gained the benefits of competitive pricing, and stayed focused on core business processes. The business fundamentals of outsourcing really have not changed. Outsourcing—rather than trying to build and retain a substantial in-house capability-- remains the most effective strategy for conducting a wide variety of IT operations.

Secondly, I would like to draw your attention to the distinction between "outsourcing" and "offshoring." Offshore development and maintenance is a subset of outsourcing. The outsourcing provider may perform services on shore, offshore, or in some combination of the two. The decision is based on a variety of factors, not the least of which is customer preference. Another phrase being used more widely is "near shore," which normally means work down outside the US in our neighbors to the immediate north or south, Canada or Mexico.

Because this issue is so important to us, we were especially gratified to see Intel Board Chairman Andrew S. Grove address it at a recent industry meeting in Washington, D.C. As one of the IT industry's leading thinkers, innovators and business executives, his words resonate across national borders, government branches and market sectors. Grove warned that without real vision and decisive action, the U.S. software and services industry could go the way of the steel industry. As a native of Western Pennsylvania who worked his way through college, in part, by working in a steel mill, I have seen what economic obsolescence can do to companies, a community and, ultimately, to the working lives of average people.

We agree with Andy Grove that globalization is creating a new competitive reality for employers, employees, government agencies and academia. "Globalization" has also become the phenomenon that draws together numerous public policy threads: trade, business immigration, education and training, protectionism, global tax policy, and employment. As a growing number of countries create the resources to compete for global IT business, particularly the business located in this country, the U.S. information technology industry finds itself in the difficult position of responding to pricing pressure from abroad while assuring that the domestic talent pool--from which it has built a world class presence over 50 years--does not shrink to levels dangerous for its own technical and economic viability over the long term.

ITAA believes that the U.S. cannot legislate or regulate its way out of this perplexing situation. At the same time, however, to do nothing—as Bobby McFerrin sang, "Don't Worry, Be Happy"--is to risk an ever-increasing number of knowledge worker jobs disappearing overseas. We also understand such a position is not acceptable to this Committee and others in Congress who are hearing from constituents concerns about he the future of the US IT industry.

To retain preeminence in global markets, ITAA advocates a New Competitive Reality Program for the US IT industry that involves all key stakeholders—IT companies, customers, government officials, the education community, and workers. Such a Program requires 1) detailed analysis of the situation, 2) examination of various policy and programmatic approach to address identified challenges, and 3) a plan of action to implement critical policies and programs. Such a Program, rather than knee jerk legislative or regulatory solutions, is the way to preserve global competitiveness.

Lets talk about what this new competitive reality entails and how, as a nation, we must adjust our public policy agenda to remain at the forefront.

Offshore Outsourcing in Perspective

First, understand that, in statistical terms, the trend towards offshore outsourcing is a cloud on the horizon, not a hurricane sweeping everything in its midst. We should keep our eye on how the weather pattern is changing over time, but we should not start boarding up our windows and stashing the patio furniture. The US IT industry is facing new challenges, but it is not disappearing.

I say this because over 10 million Americans earn their living in the IT workforce. Nine out of ten these workers are employed by businesses outside of the IT industry—banks, law firms, factories, stores, and the like. Eight out of ten of these jobs are found in small businesses—the firms arguably least likely to seek a global solution or to attract a global solution provider. Even the most doom and gloom analysts predict that fewer than 500,000 computer-specific jobs will move offshore in the next ten years.[1]

If we have seen any storm at all, it has been the three year "perfect storm" of trends converging to depress the short-term demand for US IT workers: the dot.com bust, the telecom collapse, the recession and jobless recovery, and slow customer spending, domestically and globally, for new IT products and services. A depression in the need for IT workers has increased attention paid to the offshore outsourcing issue. Only a few years ago, we had virtually full employment in the IT industry. If the economy improves and demand increases, we will see the super-charged emotional environment surrounding this issue begin to dissipate, too. I am pleased to report that there are several data points put out by the US government and private sector analysts indicating that IT spending is increasing this year by several percentage points after two years of substantial declines.

I do not mean to diminish or downplay the very real impacts of offshore competition to American IT workers or their families. Thousands of IT professionals have played by the rules: studied hard in school, worked long hours, made a sweat equity investment in the future of their companies.... only to find themselves now unemployed or underemployed. A more vibrant economy and greater capital spending by the private sector will greatly

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[1] U.S. Department of Labor and Forrester Research statistics reported in MS Money article; "Will Your Job Move to India?" by Philipp Harper, September 30, 2003.
http://moneycentral.msn.com/content/invest/extra/P62115.asp

help these particular individuals. Not all of the current concerns, however, can be attributed to the economy, and we need to better understand this new competitive reality, using logic—not emotion—as our filter.

The New Competitive Reality

The first hard truth is that many large corporate customers in this country are demanding that offshore IT services be included in a competitive outsourcing bid. These customers have been attracted by offshore firms offering substantial price savings for IT services like software code writing and testing, as well as for business processes supported by information technology, like claims processing or customer support. Even companies that are keeping their IT work internal are moving some of it offshore.

As an example, a scripted call center worker in Mumbai might earn $1.50 per hour, compared to $10 per hour in Kansas City. An insurance claims adjuster in this country might earn $1,500 per month, compared to $300 per month in India. And the $75,000 annual take home pay for a certified public accountant in the U.S. might be only $15,000 in India.[2] Whether cost savings continues to be a significant driver remains to be seen. As one travels up the "value chain," the need for personal interaction with the customer increases, training increases, complexity increases, the potential for lost productivity increases, and so the total cost spread between the American and Indian worker decreases. From this perspective, the savings might be as little as 20 cents on the dollar.

The second hard truth is that some offshore service providers are delivering quality services at what many customers perceive to be a fraction of the cost. In the U.S., the Department of Defense has set the Capability Maturity Model (CMM) as the quality standard for assessing its system and software development contractors. U.S. firms not seeking DoD business have largely ignored the model. Many firms in India, although not seeking DoD business, have pursued and received CMM level five certification—the highest such rating level—as a means of objectively demonstrating to customers the rigor of their software processes. Candidly, they have made a commitment that many software companies in this country are unwilling or unable to make.

The third hard truth is that offshore companies will compete for increasingly more sophisticated and complex IT work. I believe that the Year 2000 software conversion allowed many offshore firms to gain a foothold in the U.S. marketplace that had previously been denied them. In that particular case, the sheer volume and time pressure involved in performing date remediation forced U.S. customers to consider offshore alternatives. Having proven themselves well able to find and correct Y2K date references, these international firms began seeking business opportunities in areas such as system design, application development and maintenance. In many cases, such firms will establish a U.S. presence to provide customer interaction-intensive IT services like business process consulting, functional requirements definition, requirements specification and high-level design. Once ambiguity about how a system or business process must work is resolved, the system or software development project can be sent

[2] Rafiq Dossani, "Went for Cost, Stayed for Quality?: Moving the Back Office to India," Asia/Pacific Research Center, Stanford University, July 25, 2003

overseas for actual programming and testing. I know personally many of the CEO's of these IT services companies based outside the US, and I can tell from many personal discussions that they envision themselves as global players up and down the IT complexity chain, not constrained to low-end IT work.

The fourth hard truth is that while it may be emotionally satisfying to try to protect jobs by throwing up barriers, free trade and global markets spark investment, trade and job creation. For Americans caught in the riptide of a transitioning job market, economic abstractions like positive trade balances and expanding free markets may be the source of cold comfort. I reject, however, the notion that offshore development is a zero sum game or that every job shipped offshore is a job permanently lost to an American worker. On the contrary, evidence abounds that the working capital U.S. companies save by moving jobs and operations offshore results in new investment, innovation and job creation in this country.

A fifth hard truth is that in certain circumstances the productivity-enhancing technology innovations, products and services developed by American companies and workers are now being used by foreign firms to compete for American jobs. High-speed broadband communications, for instance, is eliminating the bandwidth limitations that heretofore made the sharing of large data files or collaborating on real-time development projects onerous or impossible. Advances in areas like Voice Over the Internet Protocol may erase the idea of distance as a cost barrier to communications. The irony is that bridge building is always a two-way proposition.

The Competitive Reality and Public Policy Choices
If the truth is hard, this new competitive reality may mandate a public policy logic that is harder still. A vibrant U.S. IT industry based is critical to the nation's future for many reasons:

- Near term product and service innovation
- Next generation technology breakthroughs
- Research and development, within the IT industry as well as other industries
- Immersion of IT knowledge and expertise in other domains and industry sectors
- Domestic economic and productivity growth
- Trade expansion
- National security

Part of this new competitive reality is free market capitalism. To remain pre-eminent in global markets, U.S. IT companies must be the most globally competitive companies. This may require an adjustment to pricing models. The biggest part demands an overhaul of the basic value equation. U.S. IT companies must meet the challenge of cost, quality and innovation. This means companies must have the flexibility to align their operations as necessary to meet customer demands, whether this means an onshore, near shore or offshore, or some combination of the three. The customer wants value (which is more than simple price), and US companies must offer it to compete successfully.

Part of the new competitive reality is education, training and retooling. The prominence of the U.S. IT industry in world markets is a testament to the technical prowess of U.S. IT workers. IT workers must have the skills and skill refreshment strategies necessary to generate value and compete successfully with global counterparts. Historically, less attention has been paid to the employability of U.S. IT workers: high demand, double-digit industry growth rates, and little foreign competition for services jobs would have heretofore rendered such considerations beside the point. With overseas competition building, productivity rising and demand slackening, a new emphasis is needed to assure worker—and therefore U.S. IT industry—competitiveness.

Now, after steady gains since 1997, there is some evidence to suggest that undergraduate interest in computer science degrees may be abating somewhat—though is being offset by growth in for profit post-secondary educational institutions and community colleges. We must recognize that true workforce competitiveness requires a lifelong commitment, beginning with math and science education in K-12 that gives children the motivation and the foundation necessary to select future technical careers—rather than act as a screen and barrier that forecloses options. More American students must seek advanced degrees in information technology, rather than cede these seats to foreign students, and companies must do their part by providing internships, mentorships and other mechanisms for purposeful transition from school to work. Technologies like broadband can also play an important role, breaking down the barriers of time and space so that distance learning becomes every bit as viable to education as spending four years on a college campus.

Whether the current situation with respect to offshoring is structural or cyclical, ITAA believes the time has come for industry, government, and academia to take steps to sustain a high caliber IT workforce in this country. One such initiative might be the creation of a National Center for IT Workforce Competitiveness. Such a Center would develop and implement technology trend-spotting, skills analysis and communications programs:

- Serving as an interface between academia and the IT industry in helping to assure the appropriateness, salience and durability of IT education within undergraduate and graduate degree programs;
- Gathering, analyzing and articulating industry requirements for IT workers five years into the future;
- Tracking the penetration of IT skills into other fields of endeavor;
- Communicating IT skill trends and directions to current and future IT workers.

Part of the new competitive reality must be a commitment to free trade, open markets and liberalized trade in services. The fastest growing IT markets are not in the U.S. or Western Europe, but in the developing world. One of the few bright spots in

the U.S. balance of trade is trade in IT services—currently a $7.9 billion surplus. To put it simply, we create many more jobs by selling abroad than we lose by buying from foreign markets. IT is a big winner for the US in the global marketplace. Any model of globalization that allows emerging countries to target the U.S. IT marketplace while keeping their own closed to competition is simply unacceptable. But we also do not want to start a global trade war in one of the few areas in which the US maintains a major global trading surplus. Barriers to trade in services include governments which fail to solicit competitive bids on major procurements or bar participation of foreign providers; place discriminatory or cost prohibitive controls on in-country telecommunications networks or services; impose unfair tax rates or red tape tax collection regimes on the services of foreign firms; refuse to apply national treatment to trading partners; look the other way on intellectual property protection, piracy and copyright infringement; and create national laws in areas like domestic content or native culture preservation that are simply out of step with international norms. International trading partners must be encouraged to make in-country IT infrastructure investments and to establish the legal, social and economic conditions that encourage foreign investment.

Part of the new competitive reality will be a commitment to research and development. The role of innovation in building our economy cannot be overstated. Successive waves of innovation produced the microelectronics, personal computer and Internet revolutions. Global spending for information and communications technology (ICT) has risen over $1 trillion in the last ten years, and this figure does not include the value of goods and services customers produced using these ICT resources. While it is difficult to say precisely how much of this spending is the result of innovation and research, one can say that the economic footprint of basic research on the IT industry has been enormous. Microelectronics, for example, developed largely through government research and development expenditures, now accounts for 10 percent of the U.S. economy.[3]

The question is how the national commitment to R&D is to be sustained. Since 1980, industry has steadily replaced the federal government as the predominant source of R&D funding. Of the total $264.6 billion spent for R&D in 2000, industry supplied $181 billion of that amount.[4]

Industry cannot go it alone, and, indeed, many companies have cut into R&D budgets as they go to cut costs and downsize operations. The federal government can help address this situation and assure that R&D investments continue. By creating a permanent R&D tax credit, companies and their investors the confidence needed to address the risks of high tech innovation. Information technology in particular is a research-intensive industry. Products can move from concepts to markets in 18 months or less. Given this rapid pace of change—and the technology breakthroughs made possible by ever increasing processor power—competitive advantage is defined by a company's ability to predict market directions and to innovate to meet those market demands. Research determines the extent to which IT companies will be innovators or imitators. The R&D

[3] "The True Believer," Red Herring, October 15, 2003
[4] Science and Engineering Indicators 2002, National Science Board, National Science Foundation

credit reduces the cost of capital, thereby mitigating the risks of R&D investment and allowing companies to "push the envelope" in their technology development. A more aggressive approach to research generally yields more bountiful returns to company investors, customers, employees and the U.S. economy as a whole. Studies show that every one-dollar reduction in the after-tax cost of R&D creates one additional dollar of new spending in the short term and two dollars in the long term.

We also need an increased spending by the Federal government on IT R&D. One area of immediate attention is funding for cybersecurity research. Congress authorized a major increase in cybersecurity R&D funding under the leadership of Science Committee Chairman Sherwood Boehlert (R-NY), but we have not yet seen the appropriations to support it.

Part of the new competitive reality is to lead by example in global markets. Several legislative attempts at the federal or state level have attempted to create procurement requirements for domestically produced content or place limitations on the location of unclassified government work. These are counterproductive. The Buy American provision of the Defense Authorization Bill, for instance, would create domestic content thresholds that few information technology products could meet. Not only would this measure place the U.S. defense establishment at an extreme disadvantage, it would quickly become a standard non-tariff trade barrier adopted by countries around the world. Such approaches shrink global market opportunities and depress job creation at home.

Part of the new competitive reality is a corporate tax policy that brings capital back to the United States. At 35 percent, U.S. tax rates at present create an incentive for American companies with international business operations not to repatriate their profits. This is an unfortunate situation because it deprives companies the opportunity to invest that capital in this country. Such investment could grow companies, create new products and services, and new jobs for American workers. The Homeland Investment Act would address this situation, providing a one-time drop in rates to attract these multi billions of dollars home. Everyone agrees that the U.S. international tax system needs to be fixed, but that is a longer term legislative challenge. In the mean time, this particular tax rate cut would level the global playing field, and even just a one-time cut will be good for both business and workers.

Conclusion: Stay the Course

The displacement of workers is never easy, nor is the confusion created when companies adjust to changing consumer demand, price pressure and evolving technology. The human reaction to such perturbations is to act out rather than stay the course. In concluding my testimony, I would suggest that several trends and circumstances suggest the steadfast approach is the wisest approach in these troubled times. One need only look to the demographic census of the U.S. to understand that any current excess in availability of IT workers will quickly dissipate as baby boomers begin to retire. The U.S. workforce grew 54 percent between 1980 and 2000; during the next 20 years, growth in workers between the ages of 25 and 54 will be just 3 percent.[5] The likelihood

[5] Paul Kaihla, The Coming Job Boom, Business 2.0, September 2003.

that developing world countries will cultivate sufficient talent to do more than backfill unavoidable U.S. IT shortages seems remote.

Whether or not this is indeed the case needs exploration. Too much of the public discourse on this topic is driven by personal anecdote and newspaper headline. Government, industry and academia must work together to build the solid econometric models needed to understand this trend firmly and fully. Business case analysis is likewise needed to flesh out the details on the offshore value equation. For many customers and applications, proximity may be the unavoidable cost of doing serious business—the need for constant and comfortable interaction may be the ultimate barrier to widespread offshoring.

We discussed earlier how the technology itself might be facilitating the movement of work overseas. We may also see technology herald changes that obviate the need to go offshore. Advances in edge of the network technology, for instance, put more intelligence on the net and closer to the fingertips of actual users. Standards that allow the easy interconnection of many different types of devices and applications may change the way companies develop and use information technology itself.

Other factors may be beyond the control of information technology practice or business logic. A major new terrorist attack could change business thinking about offshoring, particularly if incidents escalate and governments appear unable to mount an effective response. This element is completely unpredictable and will be largely determined by events. U.S. companies appear to be already sensitive about the type of applications they are willing to outsource overseas. Companies always engage in risk management in their global operations, and even large companies sending substantial work offshore have indicated to me they have informal internal percentage limits beyond which they will not go in order to mitigate risk. Information security and the protection of important systems and data also is also a concern, although I see little evidence of companies refusing to go the offshore route for this reason alone. Other concerns may be more prosaic but still influence the offshore decision. Such issues include weak intellectual property protections, questionable systems of jurisprudence and missing environmental laws.

Improvements in the U.S. economy will play a major role. I am confident that the current jobless recovery will relent as displacement and adjustment abate, capital spending increases and new investment opportunities appear. Absent the irrational exuberance of the Dot.com days, we may not see employers giving away BMWs as signing bonuses or paying six figure incomes to technical people with little or no actual on the job experience. Instead, in the short to mid-term, downward pressure on salaries will produce more jobs for American workers and, for those simply looking to cut costs, a more competitive payroll picture may undercut their need to move jobs offshore.

We will also catch a new, market redefining technology wave. I cannot tell you whether it will involve nanotechnology or grid networking, light waves or power lines. I can tell you that waves of innovation have changed conventional thinking and the market

prominence of juggernaut industry players several times in the last 50 years. I am confident this will happen again and America will once again be the beneficiary.

Voices of doom say the offshore phenomenon spells the end of white collar IT employment, as we know it. The adherents of Adam Smith say, "Don't worry, be happy." The answers lie somewhere in between. We must work together to find them.

Testimony of

Ronil Hira, Ph.D., P.E.

Chair, R&D Policy Committee
The Institute of Electrical and Electronics Engineers - United States of America

To The

The Committee on Small Business
United States House of Representatives

On

The Offshoring of High-Skilled Jobs

20 October 2003

I'd like to begin by thanking Chairman Manzullo and the other Members of the House Committee on Small Business for inviting IEEE-USA to testify on the subject of off-shoring high-skilled jobs — an increasingly important issue with serious implications for individual Americans and the future economic and technological competitiveness of the United States.

My name is Ron Hira and I am an Assistant Professor of Public Policy at Rochester Institute of Technology. I am testifying today on behalf of the Institute of Electrical and Electronics Engineers – United States of America (IEEE-USA). I currently chair IEEE-USA's R & D Policy Committee and am an active member of its Career and Workforce Policy Committee.

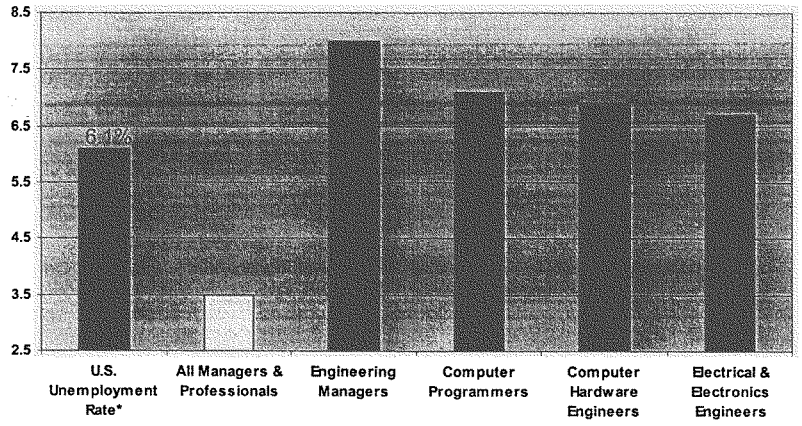
The Institute of Electrical and Electronics Engineers is a transnational technical and professional society made up of more than 382,000 individual members in 150 countries. The IEEE's primary purposes are to advance the theory and practice of electrical, electronics, computer and software engineering, improve the careers of our members and increase their ability to innovate and create wealth for the benefit of the societies in which they live and work.

IEEE-USA was established in 1973 to promote the professional careers and technology policy interests of IEEE's 235,000 U.S. members.

Seventy percent of IEEE-USA's members work for private businesses, primarily in the aerospace and defense, bio-medical technology, computers and communications, electrical and electronics equipment manufacturing and electric power industries. Thirty percent of these industry members work for firms with 500 or fewer employees. Ten percent of our members work for Federal, state and local governments. Another ten percent teach at American schools of engineering or work at non-profit research organizations. The remaining ten percent are self-employed and work as consultants to businesses and government.

Outsourcing is Contributing to High-Levels of Unemployment and Structural Displacement Within The Engineering Profession

According to the most recent data from the Bureau of Labor Statistics, electrical, electronics, and computer hardware engineers continue to face a higher unemployment rate than the general population, and over double the rate for other managers and professionals. The news for engineering managers is even worse, with an unemployment rate of 8%.



Source: U.S. Bureau of Labor Statistic, Third Quarter, 2003
** Monthly Unemployment Rate for Sept. 2003*

It's important to focus on this last statistic for just a moment. To become an engineering manager, you must have a degree in engineering, and in most cases an advanced degree. You also have to have several years of practical engineering experience to successfully lead efforts to develop cutting-edge technologies. And then, after investing the time and money needed to prepare for one of the most innovative and vital professions in the country, you are currently

more than twice as likely to be unable to find work than other American professionals. I think this gives you some idea of how bad labor markets for engineers are right now.

To put this in historical context, in the 30 plus years that the Department of Labor has been collecting statistics, the past two years are the first in which unemployment rates for electrical, electronics and computer engineers are higher than the unemployment rate for all workers . For comparison purposes, the unemployment rate for electrical engineers was 1.2% in 2000, less than one-fifth its current level. And throughout the 1980s, at a time when unemployment rates for all workers got as high as 9.5%, electrical and electronics engineering unemployment rates never rose above 2%.

The Trend Toward Off-shoring of Engineering Jobs Represents a Fundamental Structural Adjustment, Not a Short Term Business Cycle Phenomenon.

In testimony before this committee earlier this year, I described the many problems associated with the movement of America's high-skill jobs to lower cost, overseas locations. And while overseas outsourcing cannot be blamed for all of the unemployment facing American engineers, it certainly is a major contributing factor.

A spate of recent studies from forecasting firms predict the number of jobs that will move overseas. I am reluctant to quote any one of them because they are all speculative in nature. However, it is clear from all of these studies that there is a growing consensus that offshore outsourcing of high-skill jobs will not only continue but accelerate and expand to include an ever widening cluster of occupations.

Forecasters agree that offshore outsourcing is on the rise because the practice is becoming institutionalized at so many companies. A new job title - "Global Supply Coordinator" – has even been created to describe a new cadre of managers who are responsible for figuring out how best to move work to overseas locations and how best to manage it when it gets there.

Many American engineers are becoming increasingly concerned about their job security. A small but increasing number report their companies are closing electronics design facilities in the U.S. and moving them to lower cost offshore locations. In some cases, American engineers have even been given the choice of being laid off or moving to another country, but at a much lower level of compensation than they had been earning in the United States.

Let me also emphasize that these are not low-level jobs that no Americans would want, but high-skill/high value added positions filled by some of our best and brightest engineers and computer scientists. Companies are not only moving production overseas, but engineering design and research and development as well.

Is Offshore Outsourcing Good or Bad?

Unfortunately, policy discussions about offshore outsourcing are often couched in terms of "free-trade" versus "protectionism". This is the wrong way to think about the issue.

Many people who advocate free-trade, including myself, understand that there are consequences to geographic shifts in production and services due to trade. The conventional expectation is that in the aggregate these shifts will result in greater efficiency and therefore increase the overall wealth of both trading partners. But the resulting benefits and the burden of associated costs are not distributed equitably among the citizens of either country. A number of citizens will carry a disproportionate share of costs, and often lose their jobs in the process. This is why many economists recommend that governments should assist citizens who are carrying a disproportionate share of the costs. But even the limited help available through the U.S. Trade Adjustment Assistance program doesn't currently apply to employees in the services sector.

Unfortunately, the offshore outsourcing of high-skill jobs has a number of characteristics that make it hard to compensate those who are adversely affected:

1. It is often difficult to directly identify workers who have been displaced, many of whom may not even know that they have been displaced because of trade. Companies are increasingly reluctant to reveal their plans for fear of the bad publicity that will result. Many workers are too intimidated to publicly identify themselves. They fear losing the severance package offered by their employers or that they will be blacklisted if they speak out.

2. Even if we could identify those who have been adversely affected by trade, it is not clear how we should compensate them. Do we offer subsidized re-training in some other profession?

3. Re-training and other types of assistance programs are very difficult to implement. Is it realistic to expect an electrical engineer with 20 years of experience to spend four years studying to become a nurse?

In sum, we think it is entirely misleading to describe offshore outsourcing as a "Win-Win" proposition for America and other countries, as free trade advocates so often do. The burden should be placed on those advocates to demonstrate how workers who have been adversely affected will be compensated and helped to become productive citizens once again.

These advocates assume, as part of their argument, that displaced American workers will be re-deployed. Instead of assuming, we should ensure that such workers are redeployed in equally high skill and highly paid positions.

Technological Innovation, Economic Growth and National Security Implications

America's economic competitiveness and national security is increasingly dependent on the superiority of our technology and technical know-how. There is a widespread belief -- almost a blind faith among policy makers -- that as communications, semiconductor manufacturing, electronic devices and other key technological capabilities are off-loaded to other countries, the United States will just move on to the next field, to the next "big thing".

Many observers, including government officials, argue that the next "big thing" is going to be nanotechnology, and that nanotechnology is going to generate enormous economic benefits and create many new jobs. We can only speculate on the impact that nanotechnology will have on the economy and jobs, and hope that it will be significant as some predict. However, we should not be complacent. As a nation, we are not alone in our pursuit of the frontiers of nanotechnology. China is currently the second largest producer of technical papers in nanoscience and nanotechnology, even ahead of Japan. With great cost advantages in addition to this advanced technical knowledge, we should anticipate that China will compete strongly for new nanotechnology jobs and manufacturing opportunities.

U.S. manufacturing has also been hit hard by offshore outsourcing. This has important and serious consequences for U.S. engineers and for technological innovation, economic growth and national security. Some wonder whether manufacturing matters very much since it only accounts for about 15% of the Gross Domestic Product. However, from a technological innovation point of view, manufacturing matters greatly. Nearly 48% of American engineers work in the manufacturing sector. The manufacturing sector also accounts for 62% of all research and development (R&D) in the U.S. The prevailing management approach is to locate R&D as close to manufacturing production as possible. As manufacturing moves overseas, it is inevitable that both engineering work and R&D will follow.

High-Tech Guest Worker Visas Facilitate Off-Shoring

The H-1B visa program is designed to allow companies to hire foreign workers when American workers cannot be found with the necessary skills. The L-1 visa program was designed to allow companies to transfer workers with management roles or highly specialized knowledge from one branch of their company, located outside of the U.S., to an American facility. Both programs are being used in ways not intended by Congress. It is not just an issue of displacing U.S. high-tech workers with H-1B and L-1 foreign workers with similar skills and at lower wages, the H-1B and L-1 programs are actually facilitating the export of U.S. jobs and innovation.

Through these programs, enterprising foreign workers are brought into the U.S. where they are trained by some of the best companies in the world and gain valuable experience and business contacts in their field. Then many of them go home to establish or work for new entrepreneurial businesses that compete in the U.S. market. Former H-1B and L-1 employees have significantly enhanced the competitiveness of India's IT services industry, for example. Moreover, as confirmed in a recent study by Hal Salzman of the Center for Industrial Competitiveness at the University of Massachusetts, H-1B workers are being hired specifically to help offshore companies liaison contracts within the U.S.

Response to Andrew Grove's Recommendations

In closing, I would like to briefly comment on the proposals presented by Intel Chairman Andrew Grove at the Global Tech Summit earlier this month. In his talk, Grove called for:

- More government spending on education, so that the United States continues to produce the best and brightest workers in the world.

- Incentives and immigration reform to help the high-tech industry secure talented workers, wherever they can find them.

Everyone agrees that investments in education are important to all segments of society in order to improve technical literacy and enhance skills. But it should be noted that increased education spending to expand the pool of highly skilled U.S. scientists and engineers will fail if there are not rewarding and reasonably secure career opportunities in those fields upon graduation. In that regard, I would note the observations of noted demographer Dr. Michael Teitelbaum in a recent article (Do We Need More Scientists?) for *The Public Interest* (No. 153, Fall 2003):

> Instead of raising the false flag of shortages, those concerned about the future of science and engineering in the United States should encourage objective appraisals of current career paths, as well as innovations in higher and continuing education designed for more agile adjustments to inevitable changes in these dynamic fields. The overarching goal should be to find ways to make these careers attractive relative to the alternatives, for this is the only sustainable way to ensure a supply commensurate with the United States' science and engineering needs.

IEEE-USA would be pleased to work with industry in support of balanced reforms of the permanent immigration system. But so far the only immigration reform that industry has advanced is to expand the H-1b visa caps and exceptions, while also working to limit both H-1B and L-1 visa workforce protections. H-1B and L-1 visas may help employers find low-cost workers, but they do so in a manner that is unfair to both American and foreign workers. They are, in effect, a subsidy promoting the movement of American jobs overseas. Moreover, they undermine efforts to entice American students to embark on careers in engineering or the sciences by dimming the students' chances of finding and retaining technical jobs whose rewards are commensurate with opportunities in other employment sectors.

Policy Recommendations

1. The federal government must begin regularly tracking the volume and nature of the jobs that are moving offshore.
2. Companies should be required to give adequate notice of their intentions to move work offshore so that the displaced employees can make appropriate plans to minimize the financial hardship, and government support agencies can prepare to provide the necessary transition assistance.

3. Congress should rethink how U.S. workforce assistance programs can be designed to help displaced high-tech workers become productive again. We are in a new era of work and lifelong learning, and new and more flexible methods are needed to provide meaningful assistance.
4. Congress should strengthen H-1B and L-1 workforce protections and their enforcement to ensure that the programs serve their respective purposes without adversely affecting employment opportunities for U.S. high-tech workers.
5. Fundamental changes in U.S. immigration law, such as those incorporated in the recent Chile and Singapore Free Trade Agreements, should be made by Congress, and not by trade negotiators.
6. Congress should take affirmative steps to ensure that the U.S. retains the domestic human resource and production capabilities needed to develop and utilize technologies deemed critical to U.S. national and homeland security.
7. As globalization narrows U.S. technology leadership, the Department of Defense and other government security agencies will need to enhance their ability to acquire and assimilate foreign technologies.
8. The U.S. needs a coordinated national strategy designed to sustain its technological leadership and promote job creation in response to the concerted strategies being used by other countries to attract U.S. industries and jobs.

Bio of Natasha Humphries

Natasha D. Humphries studied as an undergraduate at Stanford University in Palo Alto, California. As a Senior Software Quality Assurance (QA) Engineer, she has over seven years experience testing US and International software applications, most recently in the handlheld device industry. She currently serves on the Steering Committee of the Silicon Valley Chapter of TechsUnite.org , an alliance of technical workers dedicated to promoting and protecting careers of technology workers by raising public awareness of the devastating effects of offshoring of high tech jobs overseas, the need for reform of H1B/L1 guest worker programs, and advocating for workplace rights.

Hearing Testimony of Natasha D. Humphries,
Former Software QA Engineer
Palm, Inc., Milpitas, CA

House Committee on Small Business
The Offshoring of High-Skilled Jobs, Part II
October 20, 2003

Mr. Chairman, and esteemed members of the Committee, thank you for the opportunity to hear my testimony today on behalf of myself as well as many other ex-Silicon Valley technical workers disenfranchised by the use of offshoring by Silicon Valley companies.

My name is Natasha D. Humphries. Immediately following my undergraduate studies at Stanford University, School of Humanities in 1996, I developed an interest in computer software landing my first job at Apple Computer, Inc. Over the years I have continued to acquire new skills through classes, seminars, and self-study in order to adapt to the face-paced technological changes in Silicon Valley. As a Senior Software Quality Assurance (QA) Engineer, I have over seven years experience testing US and International software applications, most recently in the handlheld device industry.

After more than three years of service, I was laid off from Palm, Inc. at the end of August 2003 due to a workforce reduction or realignment. Palm, Inc. is the leading global provider of handheld computing devices, and operating systems for handheld devices including both Palm branded and Palm OS powered devices. According to Palm's Form 10-Q SEC filing, dated Oct. 14, 2003, Palm shipped over 22.9 million Palm Branded devices, and approximately 30.1 million Palm Powered devices had been sold worldwide as of August 31, 2003, resulting in total revenue of $871.9 million in fiscal year 2003.

Since the dot com bust a few years ago, Palm, as well as many other companies in Silicon Valley, has been struggling to reduce R&D and other costs in order to meet Wall Street as well as shareholder's fiscal expectations. Early year 2002, Palm's software testing organization definitively began an aggressive campaign to outsource all testing assignments to India and China. After securing bids for pay rates as low as $2-5/hr or $4,200-$10,400 per year, executive management made the decision to outsource all testing assignments to Software QA Engineers in India, achieving considerable savings of 50-70% on salaries alone. Pay rates of US workers range from $30-60/hr or $63,000-$125,000 per year. [1]

[1] Pay rates multiplied by the Employment Development Department's reported standard of 2080 hours worked in the US using a 40-hr work week excluding overtime.

In my role as Senior Software QA Engineer Lead, it was my responsibility to review product specifications, develop product test support documents and milestone schedules, set up/manage the software defect tracking system, report defect metrics and testing status to QA management and US-based cross-functional teams, and to manage the offshore test team.

My software project was one of the first to use the offshore team in India. After several weeks of mounting project management difficulties including but not limited to language and geographical barriers, cultural differences, downed e-mail servers, weak network and telephone infrastructure, immature software development knowledge, lack of familiarity with (software and hardware) products and IT/Engineering systems, I and a number of my colleagues forecasted protracted development and testing cycles.

Management quickly identified a solution for the last three problems. In order to build core competency of Palm's products, software development practices, and IT/Engineering systems, the Product Software Integration and Test (PSWIT) organization began sending in-house Software QA Engineers to train their counterparts in India from their Milpitas headquarters. I was one of the designees, and trained Software QA Engineers in Bangalore, India for a period of two weeks in December 2002. After six months, the major problems began to subside, and the offshore team were rapidly advancing up their learning curve.

Over a period of more than four months after returning from India, I met repeatedly with my Software QA manager and QA Director in order to ascertain the new direction of the organization and any new skill sets required to remain competitive in my position as the offshore team began performing more of my job functions. I sought advice and approval for tuition-reimbursed course work in programming languages (e.g., Java and C++) and scripting languages for automation testing (e.g., Silk). At each individual or organizational meeting, I was unable to learn any specific new requirements of my position, and was discouraged to enhance my professional skill set either through poor direction, or denied approval of coursework.

The QA Director always indicated that his organizational structure was in flux, and that his strategy to increase the QA group's technical expertise in alignment with new business objectives would be revealed soon. Moreover, he assured the QA group that no one would lose their jobs to offshoring of work, although the majority current assignments were already being tested in India and China.

In March 2003, however, I learned that *new* automation testing assignments had recently been offshored to a different vendor in India. Management quickly dismissed my job security concerns, stating that delegating the current job functions to the offshore team would provide more freedom to develop new technical skills. The veracity of these statements were doubtful, and I suspected that I would be displaced by the offshore team, particularly after returning from a

10-day vacation in which my Lead counterpart in India directed the test effort in my absence without me having to work repometly while on vacation for the first time in three years. In preparation for my vacation, I provided detailed instructions to the Lead in India defining how to report defect metrics for team status reporting, how to manually correct queries that failed, when to send the status report Monday mornings prior to executive program review and to which distribution lists. When I returned from vacation in June. I was astounded to learn that that my plan was flawlessly executed without a glitch. I recognized immediately that my time horizon at Palm as a Sr. Software QA Engineer was shortening and that I may have engineered my way out of my job. My suspicions were confirmed when management failed to conduct an annual performance review in July 2003.

On August 20, 2003, I was terminated from my position along with~ 40% (forty percent) of the software quality assurance group which represented fourteen people. Although this number may not appear statistically significant, it is of import to note that we represented the talented few remaining after scores of layoffs over a three-year period following the dot com bust. Most of the terminated QA individuals held senior positions and commanded a considerably higher annual salary in comparison to our offshore counterparts earning less than $5/hr. Although most of the Software QA Engineers in India are Master's degree holders, Palm is only required to pay home country wages commensurate to living standards in India ($2-4/hr).

According to my termination letter, Palm made a determination that the software project to which I was assigned had reduced or eliminated investment in the company. However, I have knowledge that the software project to which I was assigned is indeed in alignment with the company's business objectives, and further, represents a new platform on which development of all future software applications will be based. I have also received confirmation from anonymous sources within the company that my offshore team in India continues to test following my departure from Palm.

Ironically, one of my peers in QA, who was also separated from Palm in August during the seventh month of her pregnancy is a US citizen from India, displaced by technical workers in her home country. I learned recently from a former team member in the Customer Support organization that he received notice last week that his employment at Palm will terminate at the end of this month. Although the notice indicated that the termination was due to the Handspring merger, he suspects the decision may be related to the recent outsourcing of Customer Support to India. An anonymous source reports that additional layoffs are expected as Palm increase its "multisourcing"[2] efforts to companies in India.

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[2] **Multisourcing** is defined as companies increasingly doing business with multiple service providers in the same or different countries based on the best skills for the best price. www.Computerworld.com

A month following my departure from Palm, I joined TechsUnite.org which is building an alliance of technical workers to raise public awareness and to protest offshoring, among other worker's rights issues. During TechsUnite meetings, I have met many Software Engineers, and IT workers who have been unemployed or underemployed on average between 18 to 24 months.

Offshoring has created a devastating economic climate, not just among Silicon Valley technical workers, but throughout the US. Although the public and media have recently faulted H1B and L1 guest worker visa programs for massive US job losses, companies have found a *new* back door, and are circumventing H-1B and L1 restrictions by directly off-shoring large volumes of work directly to companies in India. Off-shoring will prolong the economic recovery period as the number of US jobs quickly diminish over time. Rising unemployment numbers will further exacerbate local, state and federal budgetary deficits, since the taxable income base will be unemployment benefits until the benefit period (usually 1 yr) expires. Congress will need to work quickly to revise current legislation and enact new legislation with incentives to maintain high tech jobs in the US and create disincentives for companies to offshore US high tech jobs.

AMERICAN TEXTILE
MANUFACTURERS INSTITUTE

ROBERT DuPREE

Vice President of Government Relations
American Textile Manufacturers Institute (ATMI)

Robert DuPree has been a lobbyist for the American Textile Manufacturers Institute (ATMI) since 1989. ATMI is the national trade association for the domestic textile industry, representing companies that manufacture textile mill products including thread, yarn and fabric for use in home furnishings, industrial products and other textile items in the U.S.

Since joining ATMI, DuPree has been responsible for a number of legislative and regulatory issues, including international trade, human resources, safety and health matters, taxes and military procurement. He has served as staff liaison to ATMI's Safety and Health Committee, Human Resources Committee, Tax Committee and Government Textile Procurement Committee. On the trade front, he has lobbied Congress and given numerous speeches on such issues as the Textile, Apparel & Footwear Trade Act of 1990, NAFTA, the Uruguay Round, the Caribbean Basin Trade Partnership Act, the African Growth and Opportunity Act, the Trade Act of 2002 and a variety of issues relating to trade with China.

Prior to joining ATMI, DuPree served from 1981 to early 1989 on the legislative staff of Rep. Bill Chappell of the Fourth Congressional District of Florida. From 1983 to 1989 he was Rep. Chappell's legislative director, with oversight responsibility for the congressman's legislative staff and for all legislative issues coming before the U.S. House of Representatives.

A native of Jacksonville, Florida, DuPree is a 1980 graduate of the University of Virginia with a B.A. in Government. He and his wife, Heidi, live in Ashburn, Virginia with their three children. He is a former Chairman of the Loudoun County (Virginia) Planning Commission and is currently a member of the Loudoun County School Board.

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AMERICAN TEXTILE
MANUFACTURERS INSTITUTE

Statement of Robert DuPree

Vice President of Government Relations
The American Textile Manufacturers Institute

House Committee on Small Business

Hearing on "The Offshoring of High Skilled Jobs"

October 20, 2003

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The American Textile Manufacturers Institute (ATMI) welcomes this opportunity to testify before the House Committee on Small Business to share our concerns regarding the increasing number of skilled American jobs that are moving offshore as a result of current trade policies.

ATMI is the national trade association for the domestic textile industry. Our member companies manufacture thread, yarn and fabric, both knit and woven, and home furnishings. We represent both large and small manufacturers, but virtually all of our companies are smaller than they once were due to downsizing, layoffs and plant closings.

First of all, we would like to applaud the Committee for holding this hearing and particularly Chairman Manzullo for sponsoring H. Con. Res. 285, which is designed to hold China accountable for its anti-competitive currency practices. ATMI strongly supports this measure. Mr. Chairman, you were calling hearings on Chinese currency manipulation when no one else would pay any attention to this issue, and the entire manufacturing sector of this country, including textiles, is indebted to you for it.

Given the focus of this hearing, we would point out that, unlike other so-called "American" trade associations that are actually more importer-driven, ATMI only represents textile companies based on their domestic operations. If they do not operate machinery in the U.S. for the production of textiles, they are not eligible for membership, and if they have facilities both in the U.S. and abroad, we only collect dues based on their domestic operations.

We also want to emphasize that American textile companies employ 435,000 workers in a wide variety of jobs, ranging from unskilled to highly skilled. In fact, we are a highly automated, efficient, quality-conscience and modern industry. We are arguably the most efficient and productive textile industry in the world. To operate the various kinds of modern textile equipment requires many different skills. Our industry also employs a great many professionals with bachelors' and advanced degrees in such fields as textile chemistry, textile or mechanical engineering, polymer science and others. We are, in sum, anything but the notorious sweatshops of so many decades ago. However, by contrast, many of our competitors in Asia are still utilizing sweatshop practices or even child, slave or prison labor, and while they are not nearly so productive as we are, they make up for it in sheer numbers of workers, much longer workdays, disregard for the environment, and other unfair or illegal trade practices that give them unfair competitive advantages, as we will describe.

Last June, this committee held a hearing at which ATMI testified regarding the damage foreign currency manipulation is having on our industry. At that time, we reported that the U.S. textile industry had lost over 200,000 jobs since 1997, largely as a result of Asian currency manipulation. Today, we regret to report that, in the less than four months since that June hearing, the U.S. textile industry has lost over 20,000 additional jobs. Many of these latest job losses, which have come at an even faster pace than before, are attributable to the same unfair currency manipulation we spoke of in June.

Our industry has done what it needed to do to remain competitive. It invested billions of dollars in capital improvements so that it would be the most productive textile industry in the world and thus better satisfy our customer's "just-in-time" demands. We heeded the admonitions of the U.S. government to establish a customer base in the countries of Central America, the Caribbean and Mexico, where apparel assembled there from U.S. yarn and fabric could qualify for duty-free treatment when entering the U.S. under the various preferential and free trade programs our government has established with those nations.

But our government's failure to stop unfair and illegal trade practices by China and other Asian textile producers has negated all these efforts. As a result, we have seen an unending wave of plant closings and layoffs here in the United States.

We note that when U.S. textile manufacturers lay off workers, close plants, file for Chapter 11 reorganization or completely cease all operations, do they blame America's tax policies, our country's safety and environmental regulations, our country's wage and hour laws? Absolutely not – those are part of the cost of doing business in this great country. In normal times, these issues would affect a company's profitability, but not to the point where they would lead to insolvency.

These are not normal times. For many of our companies today, they are not worried so much about their profitability but their ability to even survive.

Today, for U.S. textile companies that have been forced to let workers go, close plants, file for bankruptcy or go out of business entirely, the reason overwhelmingly cited is --- unfairly traded imports from Asia. Unfair trade and the policies that permit such practices are the driving force behind the enormous dislocation our industry – as well as much of the rest of manufacturing - has suffered since 1997.

The year 1997 was actually a record year for the American textile industry in terms of shipments. But the Asian financial crisis and currency manipulation by Asian countries quickly reversed that situation.

Since then, our government's failure to prevent these and other unfair trade practices have devastated our industry. As shown by the chart at the end of this statement, fully one-third of all U.S. textile jobs that existed at the beginning of 1997 have completely disappeared. That's 220,000 textile manufacturing jobs gone. Forever.

And this damage has continued and accelerated in the past 2½ years. One out of every four U.S. textile jobs that existed in January 2001 has disappeared. So far in 2003, we have already seen another 40,000 textile jobs lost, including nearly 20,000 in the months of July and August alone.

And where are the plants and jobs that take the place of those that were lost here in the U.S.? They are in China, India, Pakistan, Bangladesh, Vietnam and other such countries. By and large, unlike many apparel manufacturers, our textile companies have not pulled up stakes and moved to these countries. We have maintained our presence and continued to pay our taxes and serve our communities here in the U.S. But our orders and our jobs have shifted to these other countries.

One way we can tell this is by looking at what we have exported to these countries. Have we sent them yarn, fabric or clothing? No, we have sent them millions of dollars worth of used textile machinery – looms and other equipment that have been bought by Asian manufacturers at fire sale prices when textile plants have been forced to close here in the U.S. For instance, exports of used textile weaving and knitting machines to China have increased eightfold over the past five years. More often than not, these state of the art looms are being sold to the very Chinese companies that have driven our own mills out of business.

Unfortunately, adding further insult to injury, this swath of devastation has been implicitly sanctioned by the U.S. Treasury Department. For the past six years, the Treasury Department has turned a blind eye to the over one trillion dollars that Asian central banks have stockpiled in order to gain an anti-competitive export advantage over U.S. producers. Not once in the past six years, has a U.S. Treasury report even officially admitted that these countries manipulate their currencies.

Now, because of the leadership of Chairman Manzullo and others, a rising tide of outrage from the Congress and from manufacturing workers across this country may soon force the Treasury Department to make such an admission. That admission will be important but it will not be enough. In private meetings, career Treasury staffers have made it perfectly clear that this is a task they wished were not forced upon them. We are concerned that their "lack of enthusiasm," to put it mildly, will make it difficult for this effort to succeed.

That is why we applaud you, Mr. Chairman, for sponsoring H. Con. Res. 285, which would put the careerists at Treasury on notice that Congress will not stand for any more delay, or for any more excuses in addressing the problem of currency manipulation. The manufacturing workers of this country are demanding real action and, with your strong support, we believe we are closer to getting such action.

As a final note, because the American textile industry is a critical supplier to the United States military, providing by their own estimates some 10,000 or so different items for use by our Armed Forces, we have to believe that the Congress will not let this vital sector be further devastated by badly flawed U.S. government policies and unfair foreign trade practices. It is not in our nation's economic interest to allow this to happen, and it is certainly not in our strategic interest to have our military readiness jeopardized through erosion of our textile defense industrial base.

Again, we thank you for calling this hearing and for your efforts and those of the committee to continue focusing attention on the problems facing small manufacturers, including those in the American textile industry, and the need for a more responsive U.S. policy toward our sector.

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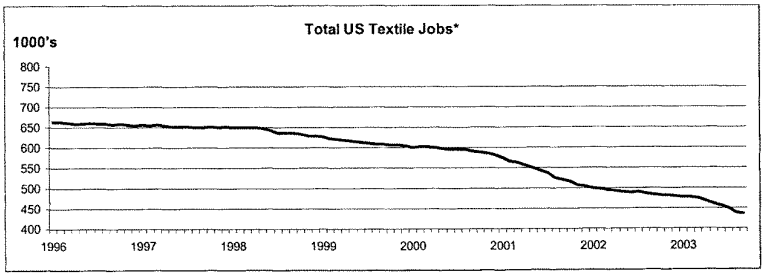

*Source: Bureau of Labor Statistics (NAICS 313 & 314)