



## **BARACK OBAMA: STRENGTHEN DOMESTIC MANUFACTURING TO CREATE JOBS AND MEET THE CHALLENGES OF THE 21<sup>st</sup> CENTURY**

The American middle class was built on the foundation of good-paying manufacturing jobs. Manufacturing supports one-in-six jobs in the nation, and pays average wages and benefits that are 23 percent higher than the rest of the economy. These jobs have long represented the core of the American dream -- that if you work hard, you can count on a job that pays the bills, health care for when you get sick, a pension when you retire, a home for your family and an education for your children so they can fulfill their potential.

Unfortunately that dream is falling further out of reach for too many working families. Since 2000, America has lost 3.7 million manufacturing jobs, a 21 percent decline. And since President Bush took office more than 36,000 manufacturing establishments have closed their doors. Michigan alone lost 241,000 manufacturing jobs between 2000 and 2006. About half of those jobs were in the automotive sector. This decline has not only cost jobs, but also threatens America's status as a leading innovator. This is occurring at the same time we face additional challenges in global warming and a deteriorating infrastructure

Barack Obama believes that we can harness the power of American ingenuity and productivity to revitalize the manufacturing sector and address the challenges of energy independence and a crumbling infrastructure. He believes that the federal government can partner with the private sector and the American people to spur innovation, invest in the skills of American workers, enhance our national capacity for high-productivity manufacturing, and stand up for American manufacturers in the global marketplace. The Obama manufacturing agenda will renew the American middle class and make America stronger in the world.

### **OBAMA'S PLAN TO INVEST IN HIGH-PRODUCTIVITY MANUFACTURING**

#### **STRENGTHEN MANUFACTURING AND MOVE TOWARDS ENERGY INDEPENDENCE**

America's 20-million-barrel-a-day oil habit costs our economy over \$2 billion a day, and nearly \$500 billion in 2006 alone. Our addiction to fossil fuels has held our economy hostage to the cost of oil, made global warming worse and threatened our national security. We are funding both sides in the war on terror and supporting some of the most despotic, volatile regimes in the world.

Barack Obama believes this challenge is also a moment of great opportunity for the manufacturing sector. He will invest in climate-friendly energy development that will transform the economy and create millions of new jobs. Obama will invest \$150 billion over 10 years to advance the next generation of biofuels and fuel infrastructure, accelerate the commercialization of plug-in hybrids, promote development of commercial scale renewable energy, invest in low emissions coal plants, and begin transition to a new digital electricity grid. A principal focus of this fund will be devoted to ensuring that technologies that are developed in the U.S. are built by American workers and deployed around the globe.

**Clean Technologies Deployment Venture Capital Fund:** Barack Obama will create a Clean Technologies Deployment Venture Capital Fund to fill a critical gap in U.S. technology development. This Fund will partner with existing investment funds and our National Laboratories to ensure that promising technologies move

beyond the lab and are commercialized in the U.S. The gap between the lab and the marketplace is sometimes referred to as the ‘Valley of Death,’ because many technologies enter but few ever make it out the other side because of the prohibitive costs of building the first commercial-scale facility that processes that energy source. Currently, U.S. venture capital funding is doing an effective job promoting research and development stage, but far too often, technologies invented here in the U.S. such as wind turbines, solar panels, and compact fluorescent bulbs are commercialized overseas and then sold back to American consumers. This Fund’s efforts to quickly deploy new technologies like cellulosic ethanol, carbon capture and sequestration, and other clean technologies like bio-based plastics will help ensure that the American economy and environment benefit from clean technologies in the next few years, as opposed to the next several decades. Obama will invest \$10 billion in this fund for five years, and reinvest profits back into the fund.

**Convert our Manufacturing Centers into Clean Technology Leaders:** America boasts the highest-skilled manufacturing workforce in the world and advanced manufacturing facilities that have powered economic growth in America for decades. Barack Obama believes that America companies and workers should build the high-demand technologies of the future, and he will help nurture America’s success in clean technology manufacturing by establishing a federal investment program to help manufacturing centers modernize and help Americans learn new skills to produce green products. This federal grant program will allocate money to the states to identify and support local manufacturers with the most compelling plans for modernizing existing or closed manufacturing facilities to produce new advanced clean technologies. This investment will help provide the critical up-front capital needed by small and mid-size manufacturers to produce these innovative new technologies. Along with an increased federal investment in the research, development and deployment of advanced technologies, this \$1 billion per year investment will help spur sustainable economic growth in communities across the country.

**Invest in U.S. Development of Advanced Vehicles:** As a U.S. senator, Barack Obama has led efforts to jumpstart federal investment in advanced vehicles, including combined plug-in hybrid/flexible fuel vehicles, which have the capability of getting well over 500 miles per gallon of gasoline. As president, Obama will continue this leadership by investing in efforts that partner U.S. automakers with the Department of Energy and U.S. academic researchers to research, test and bring advanced vehicle technology to the market. For example, plug-in hybrid vehicles rely on high-energy density batteries, which have not been commercialized in the U.S. Increased federal funding can make a difference in ensuring this technology is tested, commercialized and produced here in the United States, rather than overseas. Obama will also expand consumer tax incentives by lifting the 60,000-per-manufacturer cap on buyer tax credits to allow more Americans to buy ultra-efficient vehicles.

**Ensure American Workers Build High-Demand, Efficient Vehicles:** Obama has developed an innovative approach to double fuel economy standards within 18 years while protecting the financial future of domestic automakers. His plan, which will save nearly a half trillion gallons of gasoline and 6 billion metric tons of greenhouse gases by 2028, will establish concrete targets for annual CAFE increases while giving industry the flexibility to meet those targets. Obama’s innovative approach broke through a 20 year deadlock in Congress and is the basis for bipartisan legislation that passed Congress last year. The Obama plan will provide retooling tax credits and loan guarantees for domestic auto plants and parts manufacturers, so that the new fuel-efficient cars can be built in the U.S. rather than overseas. Unlike under the Bush administration, Obama will work with Congress to ensure that funding is provided for retooling plants.

**Create New Job Training Programs for Clean Technologies:** The Obama plan will increase funding for federal workforce training programs and direct these programs to incorporate green technologies training, such as advanced manufacturing and weatherization training, into their efforts to help Americans find and retain stable, high-paying jobs. Obama will also create an energy-focused youth jobs program to invest in disconnected and disadvantaged youth. This program will provide youth participants with energy efficiency and environmental service opportunities to improve the energy efficiency of homes and buildings in their

communities, while also providing them with practical skills and experience in important career fields of expected high-growth employment. Participants will not only be able to use their training to find new jobs, but also build skills that will help them move up the career ladder over time.

### **SUPPORT ADVANCED U.S. MANUFACTURING**

Technological innovation creates new products, opens new markets and creates new ways of making the products we come to depend on. Some economists estimate that about half of US economic growth since World War II has been the result of technological innovation. However, America is in danger of losing its technological edge. In 2004, China overtook the United States to become the leading exporter of information-technology products, and the United States is today a net importer of high-technology products. Its trade balance in high-technology manufactured goods shifted from plus \$54 billion in 1990 to negative \$50 billion in 2001.

The United States not only boasts the highest-skilled workers in the world, but also the most innovative scientists, businesses and entrepreneurs who develop new products and innovations. Barack Obama is committed to investing and attracting those 21<sup>st</sup> century innovators and ensuring that they have the resources they need to thrive in global economy.

**Invest in our Next Generation Innovators and Job Creators:** Obama will create an Advanced Manufacturing Fund to identify and invest in the most compelling advanced manufacturing strategies. The Advanced Manufacturing Fund will provide grant funds to foster greater collaboration between academic scientists and engineers with businesses in their communities, and support early-career innovators who seek to implement their job creation proposals in states that have been hardest hit by the decline of U.S. manufacturing. The Fund will have a peer-review selection and award process based on the Michigan 21<sup>st</sup> Century Jobs Fund, a state-level initiative that has awarded over \$125 million to Michigan businesses with the most innovative proposals to create new products and new jobs in the state. Through this program, Michigan has been able to provide critical support to projects that can reduce emissions through improving conventional, hybrid and diesel engine designs and enhance cooperation amongst Michigan's research universities to bring more products from university laboratories to the marketplace.

**Double Funding for the Manufacturing Extension Partnership:** The Manufacturing Extension Partnership (MEP) works with manufacturers across the country to improve efficiency, implement new technology and strengthen company growth. This highly-successful program has engaged in more than 350,000 projects across the country and in 2006 alone, helped create and protect over 50,000 jobs. But despite this success, funding for MEP has been slashed by the Bush administration. Barack Obama will double funding for the MEP so its training centers can continue to bolster the competitiveness of U.S. manufacturers.

**Provide Tax Relief for Small Businesses and Start Up Companies:** There are about 14,000 small and mid-size manufacturing companies in Michigan. Barack Obama will eliminate all capital gains taxes on start-up businesses to encourage innovation and job creation. Obama will also support small business owners by providing a \$500 "Making Work Pay" tax credit to almost every worker in America. Self-employed small business owners pay both the employee and the employer side of the payroll tax, and this measure will reduce the burdens of this double taxation.

**Invest in the Sciences and Advanced Technology:** Barack Obama supports doubling federal funding for basic research, changing the posture of our federal government from being one of the most anti-science administrations in American history to one that embraces science and technology. Obama will also ensure that programs like the newly created Technology Innovation Program are adequately funded so the U.S. retains its competitive advantage in industries of national importance. These scientific investments will foster home-grown innovation, help ensure the competitiveness of US technology-based businesses, and ensure that 21<sup>st</sup> century jobs can and will grow in America. As a share of the Gross Domestic Product, American federal

investment in the physical sciences and engineering research has dropped by half since 1970. Yet, it often has been federally-supported basic research that has generated the innovation to create markets and drive economic growth. For example, one recent report demonstrated how federally supported research in fiber optics and lasers helped spur the telecommunications revolution.

**Make the Research & Development Tax Credit Permanent:** Barack Obama supports investing in a skilled research and development workforce and a technology infrastructure that will benefit American workers and communities. Obama supports making the Research and Development tax credit permanent so that firms can effectively plan when making decisions to invest in domestic R&D over multi-year timeframes. Research is an intrinsically risky undertaking, but the R&D tax credit can make it feasible and worthwhile for even small- and medium-sized businesses. Furthermore, without a permanent credit, companies will be compelled to carry out their research overseas and create jobs outside America. Valuable advancements in communications, transportation, medicine, and national security must be generated here, by and for the American people.

### **REBUILD AMERICAN INFRASTRUCTURE**

As our society becomes more mobile and interconnected, the need for 21<sup>st</sup> century transportation networks has never been greater. However, too many of our nation's railways, highways, bridges, airports, and neighborhood streets are slowly decaying due to lack of investment and strategic long term planning. A few years ago a third of America's urban bridges were classified as structurally deficient. Barack Obama believes that America's long-term competitiveness depends on the stability of its critical infrastructure. As president, Obama will make strengthening our transportation systems, including our roads and bridges, a top priority. This will not only spur job growth in manufacturing products like asphalt, steel and construction equipment, but also reduce the costs of production and distribution across the manufacturing sector.

**New Jobs through a New National Infrastructure Investment:** Barack Obama believes that it is critically important for the United States to rebuild its national transportation infrastructure – its highways, bridges, roads, ports, air, and train systems – to strengthen user safety, bolster our long-term competitiveness and ensure our economy continues to grow. Investing in national infrastructure is especially important in our efforts to bolster our homeland security to meet international terrorism and natural disaster threats. Additionally, a robust federal infrastructure investment program today will help strengthen the U.S. economy and provide at least one million more U.S. jobs at a time when the housing and construction industries are slowing. Barack Obama will address the infrastructure challenge by creating a National Infrastructure Reinvestment Bank to expand and enhance, not supplant, existing federal transportation investments. This independent entity will be directed to invest in our nation's most challenging transportation infrastructure needs, including intermodal transport capacities. The Bank will receive an infusion of federal money, \$60 billion over 10 years, to provide financing to transportation infrastructure projects across the nation. These projects will create up to two million new direct and indirect jobs per year and stimulate approximately \$35 billion per year in new economic activity.

### **SUPPORT ORGANIZED LABOR**

Throughout his career, Barack Obama has been a consistent champion of the organized labor movement, fighting for workers' rights and to improve the lives of working families. He began his career as a community organizer in a South Chicago neighborhood devastated by steel mill closings. He built coalitions of residents, labor unions and churches to bring job training and economic development to the blighted area.

**Fight for the Freedom to Unionize:** Barack Obama believes that workers should have the freedom to choose whether to join a union without harassment or intimidation from their employers. Although an estimated 60 million Americans would join a union if given the opportunity, companies too often deny workers the opportunity to organize and improve their lives. Obama cosponsored and is strong advocate for the Employee Free Choice Act, a bipartisan effort to assure that workers can exercise their right to organize and secure initial agreements with their employers. The act requires employers to recognize a union if the National Labor Relations Board (NLRB) finds that a majority of employees have signed cards designating the union as its

bargaining representative (a "card check"), mandates arbitration if negotiations over a first contract stall, and imposes penalties on employers that illegally coerce workers not to join unions. As president, Obama will continue to work for EFCA's passage and sign it into law.

## **INVEST IN AMERICA'S LONG-TERM COMPETITIVENESS THROUGH EDUCATION AND HEALTH CARE**

America's workers are the most productive and innovative in the world. Barack Obama believes their potential is limitless. The success of our domestic manufacturing industry requires that we make the vital investments needed to ensure America remains competitive over the long-term—the investments in our own people. Obama will ensure that future generations of workers in Detroit will not only be able to compete with those in Boston or New York but also with millions more in places like Bangalore and Beijing.

**Fix Our Health Care Crisis:** Nearly 47 million Americans lack health coverage today. In addition to the social costs of worse health, the health care crisis makes many American manufacturing companies less competitive in global markets, and exacerbates our nation's long-term fiscal imbalances. The cost of providing health care to current workers and retirees adds between \$1,500-\$1,800 to the price of every vehicle made in America. Barack Obama is committed to signing universal health legislation by the end of his first term in office that ensures all Americans have high-quality, affordable health care. His plan will save a typical American family up to \$2,500 a year by providing affordable, comprehensive, and portable health coverage for every American and modernizing the U.S. health care system to contain spiraling health care costs and improve the quality of patient care.

**Reduce Catastrophic Health Care Costs:** Catastrophic health expenditures account for a high percentage of medical expenses for private insurers, including the Big Three automakers. In fact, the most recent data available reveals that the top five percent of people with the greatest health care expenses in the U.S. spent 49 percent of the overall health care dollar. The Obama plan would reimburse employer health plans for a portion of the catastrophic costs they incur above a threshold if they guarantee such savings are used to reduce the cost of workers' premiums. Offsetting some of the catastrophic costs would make health care more affordable for employers, workers and their families.

**Recruit High-Quality Math and Science Teachers:** Barack Obama will make math and science education a national priority, and provide our schools with the tools to educate 21<sup>st</sup>-century learners. Barack Obama's Teaching Service Scholarship program will prioritize recruiting math, science and technology degree graduates. Additionally, Obama's Teacher Residency Program can also supply teachers in these high-needs subject areas. Obama's plan to stimulate Professional Development Schools can help new science and math teachers, or veteran teacher needing to hone their skills, learn from professionals in the field. Programs such as New York City's "Math for America" help build a community of excellent teachers to serve in these high-needs areas.

**Enhanced Science Instruction:** Science is often a low priority in the school program, particularly at the elementary level. A number of recent reports indicate that the strictures of NCLB are correlated with a further reduction in the amount of time spent on science and other subjects in many schools. Barack Obama will work with governors to create flexible and workable systems for the states to achieve the goal of ensuring all children have access to strong science curriculum at all grade levels. Obama will also support state efforts to make science education a priority at the pre-K level. The Science in Elementary program in Pennsylvania is an example of a state taking steps to encourage inquiry based science state-wide, and has offered materials and professional development to one to three elementary schools from every district in the state.

**Improve and Prioritize Science Assessments:** Assessments should reflect the range of knowledge and skills students should acquire. Science assessments need to do more than test facts and concepts. They need to use a range of measures to test inquiry and higher order thinking skills including inference, logic, data analysis and interpretation, forming questions, and communication. High-performing states like Connecticut, Maine, New

Hampshire, and Vermont, use an assessment that calls for students to design and conduct investigations, analyze and present data, write up and defend results. Barack Obama will work with governors and educators to ensure that state assessments measure these skills.

**Enhance the Skills of Current and Future Workers:** Barack Obama has proposed to create a Community College Partnership Program that will strengthen our nation's community colleges by providing grants to (a) conduct more thorough analysis of the types of skills and technical education that are in high demand from students and local industry; (b) implement new associate of arts degree programs that cater to emerging industry and technical career demands; and (c) reward those institutions that graduate more students and increase their numbers of transfer students to four-year institutions. This program will help ensure that our manufacturing workers are trained with the high-demand skills they will need to help local businesses prosper and will strengthen the skills of current workers in addition to those first entering the workforce.

**Enhance Community College Competitiveness in Science, Technology, Engineering, and Mathematics (STEM):** Barack Obama understands the vital role that community colleges play in strengthening our nation's competitiveness in science, technology, engineering, and mathematics (STEM). About 38 percent of those who earned bachelor's or master's degrees in computer and mathematical sciences first earned an associate's degree at a community college. Obama will work to increase the number of science and engineering graduates and representation of minorities and women in the science and technology pipeline, tapping the diversity of America to meet the increasing demand for a skilled workforce. Community colleges are extremely important as an entry point for underrepresented groups and nontraditional students in STEM. Obama realizes the importance of recruiting talented teachers to train the next generations of STEM students at community colleges, and will help make this a national priority. As president, Barack Obama will support authorization of the National Science Foundation's Advanced Technological Education program at \$100 million, a critical program that has helped support STEM programs in community colleges.

**Increase Number of College Graduates with STEM Degrees:** In South Korea, 38 percent of all undergraduates receive their degrees in natural science or engineering. In France, the figure is 47 percent, in China, 50 percent, and in Singapore, 67 percent. In the United States, the corresponding figure is 15 percent. Barack Obama believes that if we do not fully tap the diversity of our nation as a competitive strength, we will diminish our capacity to innovate. Yet, despite progress in other sectors, minorities and women are greatly underrepresented in the sciences. Full participation by all segments of our populace in science and technology would do more than just provide needed increases in our skilled workforce, it would bring a wider range of perspectives, fostering creative and inventive solutions. Barack Obama will work to ensure that more high school and college students have the resources, opportunities and incentives they need to pursue careers in science, technology, engineering, and mathematics.

### **CREATE A LEVEL PLAYING FIELD FOR U.S. BUSINESSES TO COMPETE**

At 7 percent of Gross Domestic Product, our trade deficit has never been higher. Since 2001, over 1.8 million job opportunities have been displaced due to trade with China. Barack Obama believes that we need a new national commitment to make trade one of the many tools that benefits American workers and their families. Too often, our trade agreements are written to protect special interests with little regard for the benefit of the general public or the American worker. This new trade policy takes into account the reality that we cannot stop all trade in an era when there are few economic and technological borders between nations, and when trade policies have great potential to benefit American workers and consumers. At the same time, this trade policy must reflect that the costs and benefits of globalization must be more fairly distributed across our economy, so corporations don't make record profits while their workers are laid off.

**Fight for Fair Trade:** At 7 percent of Gross Domestic Product, our trade deficit has never been higher. Barack Obama will fight for a trade policy that opens up foreign markets to support good American jobs. He will use trade agreements to spread good labor and environmental standards around the world and stand firm against

agreements like the Central American Free Trade Agreement that fail to live up to those important benchmarks. Obama will also pressure the World Trade Organization to enforce trade agreements and stop countries from continuing unfair government subsidies to foreign exporters and nontariff barriers on U.S. exports. Obama will fight for stronger protections for U.S. intellectual property, and – in the case of China in particular – an end to an artificially devalued currency that puts U.S. companies at a perpetual disadvantage.

**Crack Down on Chinese Market Manipulation and Abuse:** Obama will build on his efforts in the U.S. Senate to declare China a currency manipulator, and work to ensure that China is no longer given a free pass to undermine U.S. workers. We have not exercised our negotiating capacity well and as a result China has used a variety of market manipulation tactics to attract our producers and create jobs in their market at our expense. They subsidize production, give out special tax breaks, and fail to enforce regulation to give their producers a market advantage. American workers can compete against Chinese workers on a level playing field, but they should not have to compete against the Chinese government.

**Protect Intellectual Property at Home and Abroad:** When other countries can make counterfeit versions of our products, it costs jobs and revenue for American manufacturing companies. Barack Obama believes we need to update and reform our copyright and patent systems to promote innovation and investment, while ensuring that intellectual property owners are fairly treated. He supports updating our patent policies and procedures to promote enhanced research. Barack Obama will work to ensure intellectual property is protected in foreign markets, fostering greater cooperation on international standards that allow our technologies to compete globally.

**Strengthen Trade Enforcement:** Barack Obama will take trade enforcement seriously. He will make enforcement the top priority of the U.S. Trade Representative (USTR) Office, and he will increase resources for the USTR so it can carry out its responsibility to protect American interests. Barack Obama will also only negotiate trade agreements that will benefit American workers and have strong and enforceable labor and environmental standards in the body of the agreement.

**Amend the North American Free Trade Agreement:** Barack Obama will work with the leaders of Canada and Mexico to fix NAFTA so that it works for American workers. Obama has long believed that NAFTA and its potential were oversold to the American people. It has not created the jobs and wealth that were promised. He believes that we can, and must, make trade work for American workers by opening up foreign markets to U.S. goods and maintaining strong labor and environmental standards. As president he will work to amend NAFTA so that it lives up to those important principles.

**Support Trade Policies that Promote American Manufacturing:** Barack Obama is opposed to the South Korea Free Trade Agreement. Obama believes that while the agreement would be a boon for banks, telecommunications firms, and some in corporate agriculture, it fails to ensure that U.S. products – especially our cars and trucks, rice and beef – receive fair treatment in the Korean market. We have an \$11 billion deficit in automotive trade with Korea. Last year, Korea sold 700,000 vehicles in the U.S.; the U.S. sold only 4,556 in Korea. It's not just that Koreans do not like American cars, the South Korean government has set up a centralized regulatory and tax structure that discriminates against our cars. The U.S.-Korea trade agreement does not do enough to change these discriminatory practices or to enforce commitments by Korea to open up its market. Obama believes that American workers can compete against those everywhere in the world, but they should not be exposed to systematic discrimination by foreign governments.

**End Tax Breaks for Companies that Send Jobs Overseas:** Barack Obama believes that companies should not get billions of dollars in tax deductions for moving their operations overseas. We should take that money and reward companies here at home. Obama will also fight to ensure that public contracts are awarded to companies that are committed to American workers.

**Reward Companies that Support American Workers:** Barack Obama introduced the Patriot Employer Act of 2007 with Senators Richard Durbin (D-IL) and Sherrod Brown (D-OH) to reward companies that create good jobs with good benefits for American workers. The legislation would provide a tax credit to companies that maintain or increase the number of full-time workers in America relative to those outside the US; maintain their corporate headquarters in America; pay decent wages; prepare workers for retirement; provide health insurance; and support employees who serve in the military.