



NACFAM

NATIONAL COUNCIL FOR ADVANCED MANUFACTURING

"STRATEGIES FOR A NEW INDUSTRIAL ERA"



AMT

The Association For
Manufacturing Technology

Over 100 Years of Building Global Productivity

***Manufacturers Answer: Focused
Industry Views Towards A
Comprehensive Manufacturing
Strategy***

March 2004

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In Cooperation with
AMT – The Association For Manufacturing Technology

The National Council for Advanced Manufacturing (NACFAM) is an industry-led, non-profit 501(c)(3) policy research, education and services organization committed to enhancing the productivity and competitiveness of U.S.-based manufacturing. It develops national policies and programs to accelerate the development and deployment of advanced technologies and related workforce skills. More information about NACFAM can be found at www.nacfam.org.

AMT (founded in 1902 as the National Machine Tool Builders' Association) supports and promotes the U.S. machine tool industry. The association provides U.S. builders of manufacturing systems with the latest information on technical developments, training methods, trade and marketing opportunities, and economic issues. It also gathers and disseminates information about world markets, promotes its' members' products in those markets, and acts as a representative on manufacturing technology matters to governments and trade organizations throughout the world. Additional information is at www.AMTOonline.org.

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FOREWORD

On March 1, 2004, the National Coalition for Advanced Manufacturing and AMT-The Association For Manufacturing Technology convened an industry-led conference in Washington DC, "Focusing Manufacturing Voices in Washington." The purpose of this gathering was to build broader consensus and alignment among leading manufacturing organizations around public policy recommendations for strengthening U.S.-based manufacturing.

The conference attracted 145 participants, including representatives from 35 manufacturing associations and other manufacturing-relevant organizations (list on p. 2). Plenary session speakers were Donald L. Evans, U.S. Secretary of Commerce; Eric Mittelstadt, Chairman Emeritus, FANUC Robotics, NA; John Buttermore, Vice President, General Motors; Robert J. Weskamp, President, Wes-Tech, Inc.; and Jerry Jasinowski, President, The National Association of Manufacturers.

The crux of this conference was policy breakout sessions, in which all conferees had an opportunity to present their views and work towards building consensus. Breakouts were organized around the six broad policy headings contained in the "Recommendations" section of the Bush Administration's report, *Manufacturing in America: A Comprehensive Strategy to Address the Challenges to U.S. Manufacturers*, released by Secretary Evans on January 16, 2004. A breakout was added on a critical topic: defense manufacturing. Breakout areas were thus:

- Federal Manufacturing Focus
- Tax Policy
- Ways to Lower Manufacturing Costs
- Technology and Innovation
- Workforce Education and Training
- Trade Policy
- Defense Manufacturing.

A senior industry executive moderated each breakout, assisted by prominent subject matter experts, a professional facilitator, and a staff note-taker. Between them, the breakouts reviewed all of the 50-plus recommendations in the Administration's January 16 report. After accepting, modifying or deleting those recommendations, the breakouts considered new recommendations. The following report summarizes and prioritizes the final consensus recommendations emerging from each breakout session.

A full conference program, with a list of topics covered under each breakout is appended to this report, together with a list of conference registrants.

PARTICIPATING MANUFACTURING-RELATED ORGANIZATIONS

Aerospace Industries Association	Manufacturers' Association of NW PA
American Association of Community Colleges	Manufacturers for Fair Trade
American Electronics Association	Metal Powder Industries Federation
American Iron and Steel Institute	Modernization Forum
American Machine Tool Distributors Association	Motor and Equipment Manufacturing Association
American Manufacturing Trade Action Coalition	National Coalition for Advanced Manufacturing
American Plastics Council	National Association of Manufacturers
American Welding Society	National Association of Workforce Boards
Association for Career & Technical Education	National Center for Manufacturing Science
Association of Equipment Manufacturers	National Defense Industrial Association
Association For Manufacturing Technology	National Tooling and Machining Association
Automotive Industry Action Group	Navista—The Policy Group
Computer Systems Policy Project	Precision Metalforming Association
Consumer Electronics Manufacturers Association	Small Manufacturers Association
Food Processing Machinery & Supplies Association	Society of Manufacturing Engineers
Gas Appliance Manufacturers Association	Society of the Plastics Industry
Integrated Manufacturing Technology Initiative	Synthetic Organic Chemical Manufacturers Association
Manufacturers Alliance	The Right Place Program - Manufacturers Council
	US Small Manufacturers Coalition
	Westside Industrial Retention & Expansion Network

EXECUTIVE SUMMARY

The conferees in March 1 Conference concluded that the meeting had made significant progress towards a higher level of consensus on a broad range of public policy recommendations. Consensus views on several key topics are summarized below and described in greater depth in the Breakout Reports that follow.

Administration's January 16 Manufacturing Strategy Report: Conferees considered this report, if aggressively implemented, an excellent framework for a comprehensive, interagency strategy for helping U.S.-based manufacturers deal with their multiple challenges. The report strengthens the role of the White House and the U.S. Department of Commerce (DoC) in leadership, coordination and analysis related to manufacturing. It also identifies critical actions that need to be taken both by multiple federal departments and by Congress.

In their review of the specific recommendations in this report, the conferees added greater specificity to many, especially in terms of the need for adequate resources, specific deliverables, clear timelines, and performance metrics. While accepting the essential thrust of most recommendations, the conferees deleted some, modified several others, and proposed a number of alternatives.

Federal Manufacturing Focus:

- **Role of Secretary** - The Secretary of Commerce should exercise a strong personal leadership role as Chair of two new entities proposed in the Administration's report, i.e., the President's Manufacturing Council and the Interagency Working Group on Manufacturing.
- **Under Secretary** - While industry will support the contemplated Assistant Secretary of Commerce for Manufacturing and Services, a more senior Under Secretary of Commerce for Manufacturing would be preferable.
- **Services Function** - Insofar as an Under Secretary or Assistant Secretary for Manufacturing address services those should be services directly related to manufacturing.

Tax Policy:

- **Depreciation** - Congress should make bonus depreciation permanent
- **Expensing** - Congress should establish first-year expensing as a fundamental tax policy principle
- **FSC/ETI** - Congress should quickly repeal the Foreign Sales Corp/Extraterritorial Income (FSC/ETI)—and use revenues there from to benefit U.S. manufacturers.
- **AMT** - Congress should repeal corporate alternative minimum tax (AMT)
- **Simplification** – Treasury should act now—no need for further study.

Ways to Lower Manufacturing Costs:

- **Health Costs** - The medical establishment should implement new technologies to reduce costly medical errors.
- Congress should create legislation to allow funding for Association Health Funds, promote Health Savings Accounts, and enable medical liability reform.
- **Energy Costs** - Congress should enact a comprehensive energy plan that encourages conservation, improves infrastructure, and expands domestic production to ensure the reliable delivery of ample and affordable supplies.
- Congress should remove obstacles to the development of natural gas resources under the Great Lakes, offshore, and in Alaska.
- Congress should provide incentives to ensure a future for advanced coal and nuclear power technologies and to increase the production of electricity from renewable sources such as wind, solar, biomass, and landfill gas.
- Congress should support accelerated R&D in new energy technologies including hydrogen fuels, energy efficient industrial technologies, and advanced generation, transmission, and distribution systems.
- **Legal Reform** - Congress should enact product liability and class-action reform and resolve current litigation on asbestos.
- Congress should make the medical liability system fair, predictable, and timely.
- **Regulatory Reform** - The Administration should establish an inventory of potential regulatory reforms that would lower the cost of manufacturing; conduct an analysis of the inventory; conduct a regulatory impact analysis of new rules—with a goal of reducing the number of regulations by 50%.
- Standardize regulations state-to-state, nationally and, eventually, globally.
- **Pension Reform** - Congress should change funding rules to place under-funded plans on a predictable, steady path to better funding.
- **Workers' Compensation** - Federal and state governments need to define more effective means to address escalating worker compensation costs.

Technology and Innovation:

- **Major Initiative** - The new White House Interagency Working Group on Manufacturing R&D, under a DoC Chair and working in concert with senior industry executives, should initiate a major Federal R&D program (along lines of \$4 billion Nanotechnologies Initiative) to accelerate the development of productivity-enhancing, next generation manufacturing technologies.
- **R&D Partnerships** - Congress and the Administration should provide a special fund for federal labs to intensify cooperative research with industry, while also facilitating tech transfer from universities and non-profit research consortia.
- **Standards** - The Administration should implement a proactive program on standards, including enhanced technical assistance, a leadership role in ISO, greater global recognition of U.S. technical standards, more open software architecture, and a fresh examination of merits of metric system conversion.
- **Research & Implementation** - The Administration should alter agency mission statements to ensure that innovation flows more rapidly to the private sector and that there is a tighter connectivity between basic science and the implementation of applied technology.
- **MEP** - Congress and the Administration should expand the Manufacturing Extension Partnership (MEP) program by:

- Restoring DoC/NIST FY04 and FY05 funding to at least the FY03 funding level (\$107 million)
- Directing other federal agencies (e.g., DoC/ITA, DoC/EDA, Defense, Labor) to add resources to strengthen MEP's on-site services to small- and medium-sized manufacturers (SMMs)
- Granting MEPs statutory authority to receive direct programmatic funding from private sector entities.
- **SBIR/STTR** - Require Small Business Innovative Research and Small BusinessTech Transfer programs to increase their focus on manufacturing.
- **ATP** – The Advanced Technology Program should be maintained.

Workforce Education and Training:

- **Funding Priorities** - Congress and the Administration should increase federal investment in career and technical education, not just in academic standards.
- **Skills Benchmarking Analysis** – As a benchmark for workforce education and training programs in manufacturing, DoC, the U.S. Departments of Labor (DoL) and Education (DoED) should draw upon existing industry-led skill standards to define skill and knowledge requirements.
- **Workforce Investment Act (WIA) Programs** - U.S. Department of Labor (DoL) should carry out its promising “High Growth Jobs Initiative,” especially in the advanced manufacturing sector, in active cooperation with industry and qualified community/technical colleges.
- Local Workforce Investment Boards (WIBs) should work closely with state and local economic development bodies to guarantee that they have the most current information on manufacturing job opportunities in order to develop the appropriate skills training.
- **Perkins Act Programs** - U.S. Department of Education (DoEd) should calibrate the Perkins Act programs to meet employer needs and to establish a strong articulation between secondary and post-secondary technical training and education.
- **Coordination** - The Department of Commerce (DoC), DoL, and DOEd should review all their existing workforce education/training programs and develop a coherent, coordinated strategy.
- This strategy should include tying displaced worker training and regular training programs together so they might better address local labor market needs, especially those higher skills needed in technology-intensive advanced manufacturing.

Trade Policy

- **Trade Agreement Enforcement** - DoC should establish a Task Force with the authority and resources to rigorously enforce current U.S. trade agreements and combat unfair trade practices.
- **IP** - The National Intellectual Property Enforcement Coordination Council should strengthen its enforcement processes.

- **Currency Manipulation** - The Administration should focus on the currency manipulation practices, not just of China, but also of Japan, Korea, Taiwan, and India.
- **Trade Negotiations** - The Administration should add negotiating leverage by placing higher value on access to the U.S. market and by strengthening our trade remedy laws.
- The Administration should vigorously pursue the elimination of foreign tariff and non-tariff barriers to exports of U.S. manufactured goods.
- **Trade Promotion** - DoC should consolidate its export promotion functions and accelerate the President's National Export Strategy.

Defense Manufacturing

- **Dependencies** - DoD should conduct a comprehensive study to: (a) document sources of critical defense components (b) evaluate the risks of overseas procurement; and (c) develop related risk management strategies.
- **Spiral Development** - DoD should define ways in which manufacturers, including small- to medium-sized suppliers, have to change to meet the requirements of "Spiral Development," in order to reduce lead times and costs for defense products.
- **Future Industrial Readiness** - DoD should deploy product roadmaps to better measure future manufacturing readiness. Roadmaps should integrate technology, production application, supply chain integration, and workforce skills, especially defense unique skills (e.g., in munitions, Stealth production) in this longer range focus.
- **Commercial Practices** - DoD should adjust its regulations to better support transfer of commercially available practices and products.
- **Supplier Vulnerabilities** - DoD should establish a system to manage "End-of-Life" termination programs for SMMs who are hardest hit by contract closures (e.g Comanche Helicopter).

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PLENARY REMARKS

Conference Goals: Mr. Eric Mittelstadt, Chairman Emeritus, FANUC Robotics North America and Chairman of the NACFAM Advanced Manufacturing Leadership Council welcomed the many participating associations and companies which, despite their different perspectives and views, all recognized the importance of manufacturing to U.S. economic health and security.

- Long-term trends of concern in manufacturing include the drop in manufacturing's share of GDP; the decline in manufacturing employment; the soaring trade deficit in manufactured goods; and the drop in foreign direct investment in U.S. manufacturing.
- This is the first time that any Administration has put together a comprehensive, interagency proposal on manufacturing.
- Consequently, this conference and the breakout working sessions were designed to provide concrete comments and input on the Administration's recommendations.
- Corporations need to be more visible in seeking practical solutions to problems created by job loss and outsourcing.
- As NACFAM is a 501(c)(3) non-profit, it will not lobby on the issues, but it hopes that the substantive outcome of this conference will be useful to those who do intend to lobby.
- We aim to find broad areas of consensus around which every organization can rally--allowing each to press ahead on their own unique issues.

Administration's View: Donald L. Evans, U.S. Secretary of Commerce, was confident that the economy offers a brighter future for manufacturers but noted that, "President Bush knows we cannot be complacent. He knows American manufacturing needs a helping hand."

- Soon the nationwide network of business assistance programs will be eligible to compete for up to \$45.4 million in federal grants next fiscal year by the Commerce Department's Economic Development Administration. This will help MEPS.
- MEPS will also be eligible to compete for up to \$10 million in grants in the current budget year.

- Last week, President Bush signed an Executive Order targeting small manufacturers for more federal R&D grants. And we formed an interagency group led by the White House and the DOC to better coordinate federal R&D support for manufacturing.
- There is favorable momentum in the manufacturing sector. Factory activity is starting to strengthen. Orders are up. And a range of manufacturing indexes offer hope for stronger activity this year.
- When DOC asked for views and advice in talks with the automotive, aerospace, biotechnology, furniture, semiconductor, and textile industries, and many others, we found that stakeholders wanted:
 - A single advocate, to fight for manufacturing competitiveness across the federal government;
 - Ways to hold down the domestic costs of production;
 - Tax relief to be permanent;
 - Help on health care costs (8.8% of GDP in 1998 13.2% in 2000 and will be 16% in 5 years);
 - Legal reform was a high priority, especially asbestos, class action, and medical liability reform; (In 2002, the lawsuit burden was \$809 for every single American)
 - Regulatory compliance costs are 4% of our GDP and fall hardest on SMMs;
 - An affordable, reliable supply of energy because manufacturers are heavy energy consumers; (Manufacturers require 40% of our natural gas and 30% of our electricity.)
 - Free trade as long as tariffs, subsidies, and trade barriers aren't tilting the playing field;
 - Reduced distortion of foreign markets through excessive intervention and subsidies by governments;
 - Trading partners who allow market forces to set exchange rates;
 - More aggressive and proactive enforcement of our trade agreements;
 - Greater respect for intellectual property rights among our trading partners;
 - More support for R&D.
- The Manufacturing Initiative responds to this and is a long-term game plan that contains over 50 specific recommendations from these meetings.
- The DOC is appointing an Assistant Secretary to focus on the needs of Manufacturing. This is the chief advocate and point person on manufacturing the Administration was told manufacturing needed. The selection process is almost over and there will be an announcement in short order.
- The Undersecretary for International Trade, **Grant Aldonas**, will serve in this additional role until the Senate confirms the candidate.

- The Administration is establishing the President's Manufacturing Council and Industry will have "a permanent seat at the table." The council will ensure that the manufacturing sector's views are heard before decisions are made.
- DOC is setting up an Office of Industry Analysis to track the effect of government policies on manufacturers. This office will make sure that government understands the cost of its decisions to manufacturing competitiveness.
- The Treasury Department will lead a tax simplification study. Treasury will study depreciation, the corporate alternative minimum tax, and focus on lowering compliance costs.
- The President's Office of Management and Budget will lead a comprehensive regulatory review.
- The objective is to inventory and analyze all the regulations that are holding back manufacturers.
- Then we need to evaluate all the proposed reforms. And finally, we need to develop a game plan to implement those regulatory reforms on a priority basis.
- The interagency Manufacturing Working Group chaired by DOC "will light a fire under the Federal government to implement the recommendations."
- Secretary Evans is aware of manufacturers concerns over China and, last fall, already pressed them to strengthen IPR protection; to drop the subsidies and to let market forces reign. When he returns to China this summer, he will continue, "defending the integrity of our trading agreements."
- To put teeth into trade enforcement, the Import Administration is building an Unfair Trade Task Force and shifting the burden of confronting unfair trade practices from business to government. The Task Force will track, identify, target, and eliminate problems before U.S. companies are injured. We're already monitoring the 30 top import categories from China.
- In the Office of Market Access and Compliance, DOC is getting tough on market distorting practices and trade agreement violations. Commerce is launching a Trade Agreement Enforcement Unit, which, while handling all areas of trade, will also focus heavily on areas with a large detrimental effect on the bottom lines of U.S. companies.
- The Administration will continue to open markets around the world aggressively using bilateral free trade agreements and WTO negotiations. Recognizing that circumstances hurting manufacturing competitiveness are also problems for the whole economy, President Bush has a six-point plan to create jobs and knock down the obstacles to economic growth by attacking these problems.
- Specifically, the President's plan states that we must:

- One, make health care costs more affordable and predictable;
- Two, reduce the lawsuit burden on our economy;
- Three, ensure an affordable and reliable energy supply;
- Four, streamline regulations and reporting requirements;
- Five, open new markets for U.S. goods and services; and
- Six, make tax relief permanent so that families and businesses can plan for the future.

➤ Things have gotten better in the last 12 months:

- A year ago, the unemployment rate was 5.9%. Today it stands at 5.6%. That's lower than the average of the 1970s, the 1980s, and the 1990s;
- Disposable personal income is up +4.4%;
- Productivity is up over +6.0% and productivity in the manufacturing sector is up +5.6%;
- Manufacturing profits are up more than +25%;
- And today, small business confidence is at a 20-year high;
- The equity markets added \$4 trillion in new wealth last year;
- Factory activity is finally trending up;
- Since August, there's been a 28% rise in production of computers, semiconductors, and other high-tech goods; and
- A NAM employment survey showed over 30% of members plan to hire new workers this year.

Large Manufacturing Firm Perspective: Mr. John Buttermore, Vice President, for Labor Relations, General Motors, noted that manufacturing accounts for a fifth of the U.S. economy and provides 15 million high paying jobs plus 8 million associated manufacturing jobs.

- It is the largest exporting sector-- for example \$50 billion/month versus yearly exports of about the same in agriculture.
- It is how we "pay our way" in the world economy.
- Governments recognize this fact and frame their public policy to support this sector.
- To stay competitive, we need to look at the public policy framework for the manufacturing sector and the cumulate effect of certain public policies that could disadvantage U.S. manufacturing--i.e. a "headwind" public policy issue.
- The U.S. believes in competition and thrives on it --but it must be fair competition. GM alone has \$20 billion in capital investment in the U.S. and 150,000 employees (\$61 billion invested in North American suppliers).
- The cumulative effect of public policy is making it more and more challenging to stay competitive in a global environment. If nothing is done, U.S. manufacturing will continue to decline.

- We need to work together to align our efforts and work toward a common goal. There is no single silver bullet. We will need to plan for the near, mid, and long term.
- It will require bipartisan support to improve the policy framework. In GM's view the key issues are:
 - **Trade.** Although on balance it is a benefit, currency manipulations, especially by Asian countries such as Japan, which bought \$190 billion to support the yen, essentially provided their trade goods a \$70 billion subsidy or a \$2,000 subsidy per vehicle sold. This depresses the demand for U.S. products. Asia has \$1.3 trillion in reserves. It is critical to allow normal market forces set the currency value; otherwise, the currency distortions can offset all other U.S. competitiveness accomplishments.
 - **Transportation Infrastructure.** The U.S. needs to ensure that it doesn't fall behind and implements systems to expedite the flow of goods. The U.S. needs multiyear planning to achieve this objective.
 - **Health Care.** Health care costs are rising three to five times faster than the rate of inflation. Health care costs already account for 14% of U.S. GDP. We need to improve the quality of U.S. health care and cut down the medical error rate. Since U.S. health care largely is employer funded, it acts as a competitive disadvantage for U.S. employers. Many can no longer afford health care benefits. The system penalizes companies that provide health care. The recent Medicare legislation is a first step, but much remains to be done.
 - **Strong Legal Framework.** Litigation acts as a major tax on the U.S. system. The U.S. court system is "out of balance," and U.S. manufacturers bear the burden.
- In sum we need a policy framework that will get us back on the path of growth. We need policies that work for U.S. manufacturing and not against it.

Small-to-Medium Sized Firm Perspective: Mr. Robert J Weskamp, President, Wes-Tech, Inc said that the current climate is difficult because of a range of broad issues that affect U.S. competitiveness.

- U.S. dependency on offshore manufacturing was shown by the recent West Coast dock strike. We need a full account of where manufacturing stands in the national policy dialog.
- Manufacturing needs to speak with a "united" voice when it offers advice and dialog. We need to nurture innovation, provide more capital, create jobs, and further U.S. export growth.
- Over 98% of U.S. manufacturing firms are SMMs. They accounted for 43% of all manufacturing jobs and for most of the job growth in manufacturing.

- CEO's of SMM's are concerned and want to make a difference.
- The overvalued dollar is of real concern, and AMT has already testified on its effect on U.S. manufacturers.
- The overvalued dollar has dramatically weakened U.S. high-tech manufacturing and affected the speed of the U.S. recovery.
- Asian currency manipulation continues to hurt U.S. manufacturers. Even though the Euro has strengthened recently, the dollar is still 8% above its 1997 level relative to European currencies.
- It is imperative the Administration allow the free market to set the value of the dollar. On going intervention by Japan, China, South Korea, and Taiwan has had a strong effect. In 2003 the Japanese bought \$190 billion and China \$117 billion to boost the value of the U.S. dollar.
- Vital issues for SMM's include support for the ATP and the MEP.
 - ATP stimulates prosperity through innovation. It changes the way industry approaches R&D and allows industry to push the envelope of what can be attempted. Normally focus is on speed and not the longer term. ATP provides a "broader perspective."
 - MEP has 400 centers all over the U.S. that help SMM's. They are funded by federal, state and private funds and can help even the smallest firms. Without USG support, innovation and R&D will decline. The government programs allow government-academia-industry partnerships to leapfrog ahead.
- The MAPI/NAM study on structural costs (*How Structural Costs Imposed on U.S. Manufacturers Harm Workers and Threaten Competitiveness*, by economist **Jeremy A Leonard**, at <http://www.nam.org/costs>) shows how U.S. overhead costs add 22% to the cost of labor and affects manufacturing competitiveness.
- These rising costs have offset 54% of manufacturing productivity growth since 1990. At the same time, China, Mexico, Taiwan, and Korea are all increasing their market share in high technology goods.
- The banking climate in the U.S. is a problem:
 - We need adequate capital.
 - Even when manufacturers are ready to invest in capital equipment, they have been unable to find funding as lenders have been narrowly focused in reducing near term risks.
 - SMM's are the engines of growth for the economy, and the fuel is financial resources.

- Without these resources and without a change in the current situation, the current recovery will “wither.”

Trade Association Perspective: Mr. Jerry Jasinowski, President of National Association of Manufacturers, stated that NAM aims to raise the visibility of manufacturing and to keep the focus going for the next 5 years.

- NAM created the Manufacturing Institute to stress the importance of manufacturing and the sector's infrastructure concerns.
- The price-cost squeeze is at the heart of U.S. manufacturing problems and led to significant underperformance in the 90's.
- Cost escalation has put a 22% premium on top of production costs and eroded the cash flow--thus leading to downsizing and loss of jobs.
- In 2003 NAM began a campaign to urge action to fix exchange rate distortions and achieve a level playing field for trade; to reduce costs; to support innovation; and to improve skills training.
- NAM has produced major studies on technology/innovation; on the benefits of manufacturing and the importance of manufacturing to a high standard of living.
- We need “focus” to achieve any momentum. The Administration's January 16 manufacturing strategy report is a “good report,” but NAM sees the real issue to be “implementing the report” and actually moving manufacturing ahead.
- The Administration is making progress with tax cuts and initiatives to level the playing field for exchange rates, but much remains to be done such as:
 - Support for the ATP and MEP;
 - More to be done on the China debate and unfair Chinese trade and exchange rate practices. We need to stop the *yuan* from being “pegged” to the dollar. The State Manufacturing Summits have been successful, but we need to go out of DC and emphasize the importance of manufacturing in the context of skills and training.
- NAM considers the greatest threat to the recovery to be rising energy prices.
- The Manufacturing Institute is dedicated to raising the profile of manufacturing.
- On the policy front, we need more support for NIST and more MEP funding, as well as regulatory reform.
- The overwhelming majority of Washington officials and media do not understand the importance of manufacturing (which pays 60% of the U.S. trade bill--more than twice that provided by the rest of the economy).
- Manufacturing provides jobs that pay on average \$54,000 a year in wages and benefits and is key element of the “multiplier” effect for the economy.

- Before embarking on policy discussions, it is vital to emphasize the importance of manufacturing. We need to be creative in getting the message across.
- Even the Administration doesn't know the importance of manufacturing.
- If we can't convince the policy makers of the importance of manufacturing, we can "forget about the policy initiatives."
- Immediate congressional policy issues include asbestos litigation, pension security, and free trade agreements.
- In conclusion:
 - U.S. tariffs affect U.S. market access.
 - We need to resist protectionism but also to be tough on trade issues with a focus on "fair" trade.
 - We must also address regulatory reform.
 - The key is making people aware of how important the manufacturing sector is to their standard of living and welfare.

BREAKOUT POLICY RECOMMENDATIONS

Federal Manufacturing Focus

Establish a President's Manufacturing Council, chaired by U.S. Secretary of Commerce, allowing industry to provide oversight and advice on the implementation of a national manufacturing strategy

- Allow no substitutes for Secretary of Commerce
- Needs a strong Congressional mandate and White House support
- Frequency and number of Council reports should be identified
- Peer review required to gauge effectiveness
- Reports then need to be made public

Create an Interagency Working Group on Manufacturing chaired by the U.S. Secretary of Commerce

- Allow no substitutes for Secretary of Commerce
- Other Agencies should be represented at cabinet level
- U.S. Secretary of Defense should be a vice-chair

Create an Assistant Secretary or, preferably, an Under Secretary of Commerce for Manufacturing

- Policies pursued by the incumbent should be industry- and analysis-driven
- Responsibilities should include services, but only services *directly related* to manufacturing
- Create a New *Office of Industry Analysis* to support the Under Secretary
- Analysis to measure progress toward a national manufacturing strategy should be based on a systems approach:
 - Clearly articulate goals
 - Establish relevant benchmarks & timelines
 - Define appropriate metrics
 - Analyze effectiveness of current data collection
 - Specify funding requirements
 - Identify financial resources

Foster coordination and cooperation among Federal, State, and Local Governments

- Set as a lower priority than above recommendations--can become "black hole" in dealing at the state and local level
- Accomplish through existing organizations, for example, National Governor's Association (NGA)

Tax Policy

Make bonus depreciation permanent:

- 1st year expensing is a fundamental principle needed to avoid double taxation and penalizing capital investment
- It is not some “extra” counter-cyclical device to be turned on and off

In order to avoid WTO sanctions, Congress should quickly repeal the Foreign Sales Corp/Extraterritorial Income (FSC/ETI)—and use revenues there from to benefit U.S. manufacturers.

Reduce the costs of tax complexity and compliance

- Move ahead; no need for further study
- Repeal corporate AMT
- Full first-year expensing depreciation
- Improve and make permanent the research and experimentation tax credit
- Launch a study to investigate other simplifications, including the effect of personal AMT on small business

Improve and make permanent the Research and Experimentation Tax Credit

- “*Improve*” to make this credit more beneficial for traditional manufacturers
- Study design and revenue implications of “Collaborative R&E Tax Credit” legislation to enable companies to receive tax credit for collaborative research with universities, labs, and non-profit research consortia

Deepen the pool of investment capital available to manufacturers by introducing incentives for saving

Ways to Lower Manufacturing Costs

Reduce the cost and improve the availability of health care

- Implement new technologies:
 - Prevent costly medical errors & adverse events
 - Modify federal regulations, e.g. HIPAA, to require adoption and implementation of best practices
- Congress should create legislation to allow and enable funding for Association Health Funds
- Promote Health Savings Accounts
- Accelerate the Food and Drug Administration's review of new and generic drugs while improving the quality of the drugs
- Enact medical liability reform

Benchmark government expenditures and productivity to industry and implement at a rate equal to the U.S. economy on an annual basis

Enact a comprehensive energy plan that encourages conservation, improves infrastructure, and expands domestic production

- **Increase electricity supply:**
 - Congress should examine the legal framework governing electricity production and transmission to lessen the chance of disruptive blackouts and ensure the delivery of ample and affordable supplies of electricity
 - Legislative provisions should include incentives to support R&D in advanced generation and transmission technologies
 - Establish mandatory and enforceable reliability standards. encourage expanded investment in transmission and generation facilities, eliminate transmission bottlenecks, reform outdated laws, promote open access to the transmission grid, promote regional planning and coordination, and protect customers
 - Develop new technologies, through public/private partnerships that stimulate investment in the electricity infrastructure and deploy advanced energy delivery technologies
- **Facilitate adequate and economical supplies of natural gas**
 - Congress should facilitate adequate and economical supplies of natural gas by examining the regulatory obstacles to the development of natural gas resources on federal land, under the Great Lakes, and off the coast, and to the construction of liquefied natural gas terminals and other infrastructure

- Congress should also simplify the permit process and facilitate the construction of an economically viable natural gas pipeline from Alaska, and encourage additional deep-well gas development on the outer continental shelf
- Congress should moderate future demand growth for natural gas:
- **Provide incentives that ensure a future for advanced coal and nuclear power technologies**
- **Provide tax incentives to increase the production of electricity from renewable sources such as wind, solar, biomass, and landfill gas**
- **Congress should encourage further research and development in new energy technology:**
 - Include funding for President Bush's hydrogen fuel initiative to develop technology for commercially viable hydrogen-powered fuel cells and a new generation of hydrogen powered vehicles to help reduce U.S. dependence on foreign oil
 - Promote public/private R&D partnerships to stimulate investment in industrial energy efficiency technologies, electricity infrastructure system and advanced generation, transmission, and distribution system technologies
 - Congress should create tax incentives for investment in advanced pollution control and transmission technologies.

Modernize the U.S. legal system to eliminate disincentives to invest in manufacturing

- Enact product liability reform
- Enact class-action reform
- Congress should enact legislation resolving current litigation on asbestos.
- Make the medical liability system fair, predictable, and timely

Reduce the cost of regulation and legislation

- Establish an inventory of potential regulatory reforms that would lower the cost of manufacturing; conduct an analysis of the inventory; conduct a regulatory impact analysis of new rules
- Reduce the number of regulations by 50%
- Standardize regulations state-to-state and globally

Promote pension reform to ensure U.S. manufacturing competitiveness

Engage federal and state governments in a deeper dialogue to deal more effectively with workers compensation cost issues

Technology and Innovation

Review federal R&D funding for engineering, and the physical science technologies to encourage better coordination and focus on innovation and productivity-enhancing technologies.

Initiate a major Federal R&D program to develop advanced manufacturing technologies to increase competitiveness of the U.S. manufacturing community:

- Follow model used over past 50 years to develop major technologies (e.g., semiconductors, computers, network communications, biotechnology, and now nanotechnology)
- Ensure active engagement between senior levels of industry and government

Promote partnerships for manufacturing technology transfer:

- Analyze best practices and metrics
- Provide incentives to motivate federal labs to undertake collaborative R&D with industry
- Examine methods for universities, MEPs, and non-profit research consortia to accelerate collaborative R&D with industry

Create an Interagency Working Group on Manufacturing Research and Development

- Identify priorities for future federal support for advanced manufacturing technologies
- Provide for an effective interface between this working group and industry
- Draw upon experience of the DARPA-PM and GATE-M models

Strengthen the U.S. Patent and Trademark Office

- Make it world's best in terms of timing, enforcement
- Address small firm issues

Expand Cooperative Technical Assistance Programs on Standards

- Examine Metric System conversion pro/cons
- Assume a leading proactive role in ISO
- Accelerate speed and create greater flexibility within standards process
- Involve industry more actively
- Work towards creating a more open architecture

Ensure the reliability of the critical infrastructure that is vital to manufacturers

- Implement procedures and standards to better protect industrial control systems

- Include physical, software, and security vulnerabilities
- Add success metrics

Support the R&D that underpins critical infrastructures—and quickly transfer the results of that R&D to the private sector

- Alter agency mission statements to ensure that innovation flows more rapidly to the private sector
- Tighten the connectivity between basic science and implementation through applied technology

Strengthen federal support and resources for expanding the Manufacturing Extension Partnership

- Restore FY04 and FY05 funding to at least the FY'03 funding level (\$107 million) for the MEP program.
- Strengthen Administration leadership behind the MEP program
- Direct other federal agencies and programs to work with and support MEP program e.g., addition of trade promotion and trade adjustment specialists, assistance from DoD and defense prime contractors for assistance to smaller defense suppliers, support from DoED and DoL in preparing workers for high-skills manufacturing
- Congress should enact statutory authority to enable MEPs to receive direct programmatic funding from private sector entities

Encourage the Small Business Innovation Research and Small Business Technology Transfer programs to focus on manufacturing

- Increase small manufacturers' awareness of SBIR/STTR programs
- Streamline process through interaction and industry and new manufacturing R&D interagency group
- Add metrics

Maintain the Advanced Technology Partnership (ATP) program at NIST

Establish and fund new avenues for leveraging the unique capabilities of U.S. federal laboratories and universities for the benefit of small and medium-sized manufacturers

- Include a role for larger manufacturers
- Add funds for federal labs to play this role (e.g. the \$250 million Tech Transfer Initiative available each year in the early 1990s) with large manufacturers as well as with SMMs.
- Include test and evaluation of defense-related manufacturing research facilities in labs and universities

Workforce Education and Training

Increased federal investment in employment and training should include a critical benchmark study, involving the U.S. Departments of Labor, Commerce, and Education, to define and adopt the essential knowledge and skills workers need for employment in manufacturing enterprises now and in the future. This study:

- Should synthesize data that already exists in the completed state initiatives and in the private sector – employer best practices, professional and trade association standards, technical societies, and current work done by the Manufacturing Skill Standards Council (MSSC), the National Institute for Metalworking Skills (NIMS) and other industry-led skills initiatives
- Must have an industry leadership component and be customer focused
- Should be 1) completed within 6 months from the date of inception, 2) focus on the best available, current data, and 3) identify current and future skill requirements (including future replacement skills in the manufacturing sectors just coming into play, e.g. Nanomaterials)
- Must involve increased public investments in employment and training for high-skills manufacturing to complement private sector training investments

Increase federal investment to establish secondary and post-secondary career/technical education (CTE) programs in high-demand occupational areas in manufacturing based on requirements to meet critical regional skill needs

- Increase federal investment in this manufacturing high skills initiative as Perkins Act programs are being calibrated to meet employer needs in high demand occupational areas and to establish a strong articulation between secondary/technical schools and post-secondary technical training and education
- Use a formula basis to channel new DoEd funds into high-priority schools in communities where emerging skill needs have been identified by “benchmark study” mentioned in Recommendation # 1
- Carry out this initiative in close cooperation with and participation by the Workforce Investment Boards (WIBs), operating through the U.S. Department of Labor under the Workforce Investment Act (WIA), and by community/technical colleges where emerging skill needs have been clearly identified.
- Effectively disseminate information on this initiative to every high school in communities where emerging skill needs have been identified
- Define very specific goals and outcomes, giving priority focus on communities where emerging technical skill needs have been identified.
- Give Local WIBs final planning and oversight responsibility for this initiative since they already have a key role in local economic development planning. (This language should be included in the WIA reauthorization being considered by the U.S. Senate and should be submitted to the House Labor and Workforce Committee for consideration in any future Conference Committee deliberations.)

- Industry, educators, counselors, and parent groups should work together to help students understand the attractiveness of careers in 21st Century manufacturing enterprises

Establish a Personal Reemployment Account (PRA)

- Suspend action on PRA until the benchmark study (mentioned in Recommendation #1) is completed
- Ensure that PRA will help unemployed workers acquire new skills to find new jobs, especially since the PRA currently places minimum emphasis on the extended skills training that dislocated workers must acquire to obtain new “family-supporting” jobs
- Develop linkages between PRA and in-demand manufacturing skills to help qualify more unemployed workers for potential career pathways into the advanced manufacturing sector
- Re-tool the PRAs to meet the needs of incumbent workers who are seeking new or enhanced skills to qualify for more technical jobs and link to Incumbent Worker Technical Training grants and/or Incumbent Worker Technical Training Tax Credits
- Increase DoL “training” resources to clients who need “new” skills keyed to in-demand jobs in communities where emerging technical skill needs have been identified
- If justified by the benchmark study, the “retooled” Personal Reemployment Account can be viewed as another DOL resource for enhancing the skills of the nation’s workforce members

Provide federal funding to manufacturing-dependent communities and charge MEPs and WIBs with the accountability and responsibility to coordinate economic adjustment for the manufacturing communities using these federal funds

- Authorize the Assistant Secretary of Commerce for EDA to chair the interagency task force (DOC, DOL and DOEd) to develop accountability standards for local economic adjustment initiatives and to direct DOC, DOL and DOEd resources to MEPs and WIBs in manufacturing dependent communities to carry out local economic adjustment initiatives
- Decentralize the coordination of economic adjustment programs to local entities more familiar with local community needs and expectations
- Make regional MEPs permanent members of local WIBs in manufacturing-intensive communities (This requirement must be built into the WIA reauthorization now being considered in the Senate.)
- Give MEPs the responsibility and resources to conduct research with small and medium-sized manufacturers to 1) determine manufacturing skill needs and to provide this information to local WIBs, 2) identify structural economic challenges faced by manufacturing-dependent communities; and 3) join with the local WIBs in formally requesting needed resources from pertinent federal and state agencies.

Improve delivery of assistance for and retraining of displaced workers

- Maintain current funding levels for the traditional suite of unemployment insurance and related worker assistance programs ... as long as “training, retraining and placement” remain the principal focus
- Tie displaced worker training and regular training programs together so they might better address local labor market needs, especially those higher skills needed in technology-intensive advanced manufacturing
- Acknowledge the difference between displaced worker vs. incumbent worker retraining as an element of priority
- Enhance basic literacy, math, and technology training, if displaced workers are to benefit from training that will provide them with more technical skills
- DOL, DOC and DOEd must take action now to review existing programs and provide recommendations on integrating them to develop a coherent program that addresses the needs of workers affected by ongoing adjustment in a rapidly changing economic environment

Trade Policy

Enforce U.S. trade agreements and combat unfair trade practices affecting U.S. manufacturers

- Establish a Task Force within DoC's Import Administration to pursue the elimination of foreign unfair trade practices
 - include sanctions recommendations.
 - Identify anti-dumping violations and improve enforcement.
- Reinforce the efforts of the National Intellectual Property Enforcement Coordination Council through a clear definition of consequences for non-compliance and an effective enforcement process.
- Establish an Office of Investigations and Compliance within DoC
 - Provide adequate funding is needed to support this office.
 - Ensure that Investigations are proactive, and do not simply wait for a complaint.

Encourage economic growth and open trade and capital markets abroad

- Encourage the growth and development of foreign capital markets
- Focus especially on the currency manipulation practices, not just of China, but also Japan, Korea, Taiwan, and India
- Promote market-based prices and interest rates, including the phase-out of government subsidies and directed lending

Negotiate trade agreements that benefit U.S. manufacturers

- Add negotiating leverage by placing higher value on access to the U.S. market and by strengthening our trade remedy laws
- Pursue the elimination of foreign tariff and non-tariff barriers to exports of U.S. manufactured goods
- Negotiate the elimination of trade-distorting subsidy practices, taking into account potential exceptions for local and state incentives

Reinforce efforts to promote the sale of American manufactures in global markets

- Enhance the U.S. Government's efforts on behalf of U.S. manufacturing by consolidating DoC's Export Promotion Functions
- Accelerate implementation of the President's National Export Strategy, without weakening U.S. trade and enforcement laws
- Implement a "Global Supply Chain Initiative" to promote access to the global marketplace

- Promote global recognition and use of U.S. technical standards
- Update and reauthorize U.S. export control laws, ensuring that our trading partners also comply

Defense Manufacturing

Examine sources of critical defense components and potential vulnerabilities

- Conduct a comprehensive study to evaluate the risks of overseas procurement of critical defense components, to include:
 - Description of Current Dependencies
 - Analysis of Future Dependencies
 - Quality
 - Availability
 - Distribution
 - Logistics Depots
 - Foreign Policy Implications
 - Trade Implications
 - Recommendations regarding importance of securing U.S. sources for certain components
- When this study is completed, continuously monitor and update these issues to identify new problems or needed changes.
- Develop strategies for managing risks inherent in dependencies on certain external suppliers

Accelerate implementation of “Spiral Development”:

- Define ways in which manufacturing has to change to meet the requirements of Spiral Development:
 - Support the implementation of “Lean” Manufacturing throughout the manufacturing supply chain
 - Require integration of the supply chain manufacturers
 - Ensure manufacturers can appropriately manage their supply chains at all levels
- Identify opportunities for U.S.-based small- to medium-sized manufacturers to enter the market with new technology
- Build manufacturing road maps for new programs:
 - Measure manufacturing readiness/technology manufacturing readiness
 - Adjust DoD regulations to better support transfer of commercial practices
 - Draw upon results of comprehensive study recommended above

Build strong foundation for defense industrial base transformation

- Invest in manufacturing technologies and processes to address readiness & produceability issues
- Include all levels of the supply chain
- Product roadmaps should integrate technology, production application, and workforce skills, especially defense unique skills (e.g., in munitions, Stealth production) in the longer range focus
- Establish a system to manage “End of Life” Termination Programs (such as Comanche Helicopter):
 - Recognize that small- and medium-sized manufacturers (SMMs) hit hardest
 - Study status and availability of dedicated supply base
 - Assist SMMs in improving their technology utilization and manufacturing capabilities to help them create unique products for new applications on a timely basis
 - Include training & technology application migration be part of “End-of- Life” strategy

Conclusions and Next Steps

NACFAM CEO Leo Reddy concluded that the conference had done a remarkable job of covering a wide range of critical issues in a brief time. Conferees had succeeded in reviewing all the 50+ recommendations in the Administration's January 16 report, adding new recommendations, and prioritizing them. This was an achievement.

Turning to a major goal of this conference, Reddy asked the conferees whether they believed the meeting had helped build a higher level of consensus and alignment around policy recommendations from the manufacturing community. In a show of hands, all conferees voted in the affirmative.

Reddy informed the group that NACFAM would assemble the recommendations from all the breakouts and prepare a written report, which would include an Executive Summary of the results of the proceedings. Hopefully, the conferees will find this report useful in their respective representations to policy makers.

Chairman Mittelstadt congratulated the conferees on a highly productive meeting. He expressed special thanks to the moderators, facilitators, and subject matter experts for their excellent work in building consensus around a large number of complex policy recommendations.

APPENDIX I



“Focusing Manufacturing Voices in Washington”

An Industry-led Conference

**March 1, 2004
Westin Grand Hotel
2350 M Street, NW
Washington, DC 20037**

PROGRAM

8:30 am: Registration Opens - Continental breakfast - Networking Opportunity
Location: Ballroom Foyer – Lower Level

9:30 am: Plenary Session Welcome: Conference Goals and Organization
Location: Washington Ballroom

Mr. Eric Mittelstadt, Chairman Emeritus, FANUC Robotics North America and Chair, NACFAM Advanced Manufacturing Leadership Council

9:40 am: Large Manufacturing Firm Perspective

Mr. John Buttermore, Vice President, Labor Relations, General Motors Corporation

10:05 am: Small-to-Medium-sized Firm Perspective

Mr. Robert J. Weskamp, President, Wes-Tech, Inc.

10:25 am: Trade Association Perspective

Mr. Jerry Jasinowski, President, National Association of Manufacturers

10:45 am: Coffee Break: Networking Opportunity (Ballroom Foyer)

11:15 am: Breakout Sessions: A discussion of public policy views and proposals from manufacturing organizations on the following topics:

Trade Policy

Location: Scott Room - Conference level

Moderator: Mr. David Fuchs, VP (ret.), Rockwell Automation

Experts: Dr. Catherine Mann, Senior Fellow, Institute for International Economics

Dr. Steven Suranovic, Professor of Economics and International Affairs, George Washington University

Mr. Gary C. Hufbauer, Senior Fellow, Institute for International Economics

Facilitator: Mr. Bob Paquette

Discussion Topics:

Trade Agreement Negotiation

Unfair Trade Practices

Open Trade & Capital Markets

Intellectual Property Rights

Technology/Innovation

Location: Mayfair Court - Lobby level

Moderator: Ms. Patricia Deneszczuk, Manager, Technology Integration, Advanced Manufacturing Engineering, Ford Motor Company

Experts: Mr. Richard Pearson, President, National Center for Manufacturing Sciences (NCMS)

Mr. Richard Neal, Executive Director, Integrated Manufacturing Technology Institute (IMTI)

Mr. Jeff Kueter, Executive Director, George C. Marshall Institute

Facilitator: Mr. Gerry Graves

Discussion Topics:

Manufacturing Extension Partnership

R&D Funding

Manufacturing R&D Programs

SME Cooperative Research Programs

Lowering Manufacturing Costs

Location: Chevy Chase Room - Conference level

Moderator: Mr. Gerald Elson, VP General Motors Corporation & General Manager, Vehicle Operations

Experts: Ms. Barbara Bauman-Tyran, Director, Washington Relations,

Electric Power Research Institute (ERPI)

Mr. David Danjczek, Vice President, Manufacturers Alliance

Facilitator: Mr. John McDonald

Discussion Topics:

Infrastructure/Energy Legislation (Morning Session)

Regulatory

Healthcare/Pension Reform

Litigation

Tax Policy

Location: Suite 510 - please take elevator to 5th floor

Moderator: John B. Byrd III, President, AMT – The Association For Manufacturing Technology

Experts: Mr. Pete Davis, President, Davis Capital Investment

Mr. Chris Edwards, Director of Fiscal Policy Studies, CATO

Mr. Jim Mack, Vice President- Government Relations, The Association For Manufacturing Technology

Facilitator: Ms. Julie Nitzschke

Discussion Topics:

Tax Cuts

Tax Credits

Tax Complexity and Compliance

Workforce/Education/Training

Location: Dupont Room - Conference level

Moderator: Mr. Rick Pryce, Business Manager, Global Powertrain, Rockwell Automation

Experts: Ms. Phyllis Eisen, VP, Manufacturing Institute, National Association of Manufacturers

Dr. John C. Foster, Director of Career & Technical Education,

Pennsylvania Department of Education

Dr. James F. McKenney, VP Economic Development, American Association of Community Colleges

Ms. Stephanie Powers, CEO, National Association of Workforce Boards (NAWB)

Mr. Fred Wentzel, The Saratoga Group and NACFAM Consultant

Facilitator: Ms. Ann Hyduk

Discussion Topics:

**High School & Vocational Education Partnerships
Workforce Skills Standards/Certifications
Workforce Re-training & Re-employment
Workforce Development Programs**

Federal Manufacturing Focus

Location: Suite 610 - please take elevator to 6th floor

Moderator: Mr. Eric Mittelstadt, Chairman, AMLC, NACFAM

Experts: Ms. Olwen Huxley, Committee Staff, House Science
Committee (R)

Mr. Mike Quear, Committee Staff, House Science
Committee (D) *Facilitator:* Mr. Paul Ehms

Discussion Topics:

**Assistant Secretary of Commerce for Manufacturing &
Services
Office of Industry Analysis
President's Manufacturing Council**

Defense Manufacturing

Location: Logan Room - Conference level

Moderator: Mr. Rusty Patterson, VP, Raytheon Corporation

Experts: Mr. Herm Reininga, SVP (ret.) Rockwell Collins, and
Vice Chair, Advanced Manufacturing Leadership Council
Bill Lewandowski, VP, Supply Chain, Aerospace Industries
Association

Mr. Mark Gordon, Director of Education & Research,
National Center for Advanced Technologies

Facilitator: Mr. Larry Makal

Discussion Topics:

**Sources of Critical Defense Components
Supply Chain Integration
Defense Industrial Base Transformation**

12:45 Break: Ballroom Foyer

**1:00 pm: Luncheon
Location: Promenade/ Courtyard - Lobby level**

Welcome: Leo Reddy, CEO and Founder, NACFAM

Introduction: Rusty Patterson, VP, Raytheon Corporation

Speaker: *The Honorable Donald L. Evans, U.S. Secretary of Commerce*

- 2:00 pm: Breakout Sessions, continued**
- 3:15pm: Coffee Break (Ballroom Foyer)**
- 3:30pm: Breakout Session Report-out (Washington Ballroom)**
- 4:15 pm: Conference Conclusion**

Appendix II

List of Registrants

Advanced Technology Institute

Gerry Graves

Vice President

Aerospace Industries Association

Mr. Bill J. Lewandowski

Vice President, Supplier Management

Altarum

Kenneth R. Baker

CEO & President

American Association of Community Colleges

Dr. James F. McKenney

Director

American Electronics Association

Mr. William T. Archey

President

American Enterprise Institute

Joseph Antos

Scholar

American Iron and Steel Institute

Lawrence Kavanagh

Vice President

American Machine Tool Distributors Association

Mr. Ralph Nappi

President

American Mfg. Trade Action Coalition

Jim Schollaert

Director of Strategic Outreach

American Plastics Council

Michael Fisher

Director, Technology

American Welding Society

James F. Key

Consultant

Association for Career & Technical Education

Christin Driscoll

Senior Director of Public Policy

Association For Manufacturing Technology

John B. Byrd III

President

Association For Manufacturing Technology

Jon Kurrle

Government Relations Director

Association For Manufacturing Technology

James Mack

Vice President- Government Relations

Association For Manufacturing Technology

Mr. Paul Warndorf

Vice President of Technology

Association For Manufacturing Technology

Paul Freedenberg

Director, Government Relations

Association For Manufacturing Technology

Robert W. Gardner

Vice President, Public Relations

Association of Equipment Manufacturers

Nick Yaksich

Vice President- Government Affairs

Austin Community College

Thomas Applegate

Executive Dean

Automotive Industry Action Group

Andrew Cummins

Executive Director

Automotive Industry Action Group
Linda R. Plawecki
Loaned Executive

CATO
Chris Edwards
Director of Fiscal Policy Studies

Compass Consulting
David Fuchs
Owner

Computer Systems Policy Project
Bruce Mehlman
Executive Director

Consumer Electronics Manufacturers Association
Adam Falkoff
Senior Director, Government Affairs

DaimlerChrysler Corporation
Cynthia Sidoti
Director, Paint & Energy Mgmt.

Davis Capital Investment
Peter Davis
President

Defense Programs/ DOE
Roger Lewis
Director

Delaware Valley Industrial Resource Center
Mr. Joseph J. Houldin
Executive Director

Department of Labor
James Conley
Team Leader

Department of Labor
Dennis Godson
Team Leader

Department of Labor
Franchella Kendall
Apprenticeship & Training Representative

Diplomatic Duty Free
Paul Grambsch

Employment and Training Administration
Katherine Allen

Employment and Training Administration
Sue Allison

Employment and Training Administration
Michael Jaffe

EPRI
Barbara Bauman Tyran
Director, Washington Relations

Erie Molded Plastics, Inc.
Phil Tredway
President

FANUC Robotics, N.A.
Mr. Eric Mittelstadt
Chairman Emeritus

FBC Industries
Harry Brown
President

Festo Corporation
Johannes Schlagnecke
General Manager- Didactic

Food Processing Machinery & Supplies Association
Mr. George Melnykovich
President and CEO

Ford Motor Company
Patricia Deneszczuk
Manager, Technology Integration

Fralo Industries
Alex Gernovich
CEO

Gas Appliance Manufacturers Association
Evan Gaddis
President

Gas Appliance Manufacturers Association
Joseph Mattingly
Vice President, Secretary and General Counsel

General Motors Corporation
John Buttermore
Vice President, Labor Relations

General Motors Corporation
Keith Cole

General Motors Corporation
Paul Ehms
Manufacturing Analysis Manager

General Motors Corporation
Gerald L. Elson
VP & GM, Vehicle Operations

General Motors Corporation
John McDonald
Manager--Communications GMVO

General Motors R&D Center
Mr. Steven W. Holland
Director-Manufacturing Syst. Research Lab

George Marshall Institute
Jeff Kueter
Executive Director

House of Representatives
Bradley Knox
Oversight Counsel, Committee on Small
Business

House Science Committee
Mike Quear
Democratic Staff

IMS International Inc
Kevin Lewis
Managing Director, Inter-Regional Secretariat

Industry Canada
Sara Filbee
Director, Manufacturing Industries Branch

Institute for International Economics
Gary Hufbauer
Senior Fellow

Institute for International Economics
Catherine Mann
Senior Fellow

**Institute for Manufacturing Enterprise
Systems**
Steven Brown
Professor
Arizona State University

**Integrated Manufacturing Technology
Initiative**
Richard Neal
Executive Director

Lam Research Corporation
Ernie Maddock
Vice President, Global Operations

Lockheed Martin Corporation
Dr. William Kessler
Vice President, Advanced Enterprise Initiatives

MANTEC Workforce Performance Center
Rob McIlvaine
Vice President

Manufacturers Alliance
David Danjczek
Vice President

Manufacturers for Fair Trade
Mr. David Frengel
Executive Director

Manufacturers' Association of NW PA
Ralph Pontillo
President

Metal Powder Industries Federation
James R. Dale
Vice President, Member and Industry Relations

Milwaukee Area Technical College
Dr. Joseph W. Hurst
Program Director, WiPASS

Modernization Forum
Drew Casani
TMAC Director
University of Texas at Arlington/ARRI

Modernization Forum
Mike Wojcicki
President

**Motor & Equipment Manufacturing
Association**
Ana Lopes
Director, Government Relations

NACFAM
Ginta Aleksejunaite
Office Manager and Membership Services

NACFAM
Bryan Borlik
Director, Development & Member Services

NACFAM
Ms. LeeSa Gerst
Executive Director

NACFAM
Mr. Leo Reddy
CEO and Founder

NACFAM
Neil Reddy
Project Manager

NACFAM
Fred Wentzel
Consultant

National Association of Manufacturers
Ms. Phyllis Eisen
Vice President of Manufacturing Institute

National Association of Manufacturers
Mr. Jerry Jasinowski
President

National Association of Workforce Boards
Stephanie Powers
CEO

National Center for Defense Mfg & Machining
Mr. Mark Huston
Executive Director

National Center for Manufacturing Science
Richard Pearson
President

National Defense Industrial Association
Barry D. Bates
Vice President, Operations

National Institute of Standards & Technology
Mr. Steve Ray
Division Chief

National Institute of Standards and Technology
Dr. Arden L. Bement, Jr.
Director and Acting Director NSF

National Science Foundation
Daniel Householder
Program Director, EHR/ESIE

National Tooling and Machining Association
Ronald Borst
Government Affairs Chairman

NCAT
Mark Gordon
Director of Education & Research

New Balance Athletic Shoe Inc
John Wilson
Vice President, Manufacturing

NIST/MEP
Ned Ellington

Northwestern Pennsylvania I.R.C.
David L. Andersen
Executive Director

Oak Ridge National Laboratory
Vinod Sikka
Manager-Research & Technology Development

Office of Senator Kohl
Rebecca Walton
Congressional Fellow

Parsons
Richard Pearson
Manager of Business Development-Defense/Aerospac

Pennsylvania Office of Voc-Tech Education
Dr. John Foster
Director
State Department of Education

Performance 2000
Ann Hyduk

Performance 2000
Bud Hyduk
Senior Partner

Precision Metalforming Association
Justin Ketchem
Government Affairs Coordinator

ProWriters
Terry Jones

ProWriters, Inc.
Mr. David Jones
President

Raytheon
Larry Makal
Director External Services

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Raytheon Electronic Systems
Rusty Patterson
VP, Customer & Supply Chain Institute

Rockwell Automation
Rick Pryce
Global Powertrain Business Manager

Rockwell Collins
Martha Cogdell
Director Federal & State Government Relations

Rockwell Collins
Wayne Flory
Senior Director

Rockwell Collins
Tom Hobson
Senior Mgr. Government Affairs

Rockwell Collins
Herm Reininga
Vice President, Operations

Sandia National Laboratories
Dr. Joe M. Harris
Deputy VPMfg Systems

Sandia National Laboratories
Dominique Foley Wilson
Consultant

Small Manufacturers Assoc. (SMI)
Mr. Robert Sherman
Washington Representative

Society of Manufacturing Engineers
Nancy S. Berg
General Manager

Society of Manufacturing Engineers
Richard Peters
President

Stockwell Rubber Company
Bill Stockwell
President

Suburban Toll & Die Company, Inc.
David McGuire
President

Synthetic Organic Chemical Manufacturers Assn.
Joe Ackor
President

Synthetic Organic Chemical Manufacturers Association
Rob McArrer
Director Government Relations

TechSolve
Mr. Gary Conley
President

The Boeing Company
Marlene Price
Sr. Manager- Technology Development

The George Washington University
Steven Suranovic
Professor

The Right Place Program - Manufacturers Council
Ms. Michelle Cleveland
Vice President

The Society of the Plastics Industry
Catherine Randazzo
Vice President of Strategic Business

The Whitener Group
Dr. Ray Ryan
President/ CEO

U.S. Department of Commerce
Donald L. Evans
Secretary of Commerce

University Bank of Michigan
Stephen Ranzini
President /Chairman

Urban Institute
Eugene Steurle
Senior Fellow

US Department of Energy
Paul Scheihing
Team Leader

US House Science Committee
Olwen Huxley

**US Senate Committes on Small Business &
Entrepreneurship**
Marc Robert Comer

US Small Manufacturers Coalition
Brian Sweeney
Principal

US Small Manufacturing Council
Dean Garritson
Chairman

Virtual Strategies
Ray Casale
Vice President

Wes-Tech, Inc.
Mr. Robert J. Weskamp
President

**Westside Industrial Retention & Expansion
Network**
Mr. John P. Colm
Executive Director

Y-12 National Security Complex
Janice West Christman
Director