



Common Sense on Competitiveness

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*Co-chairs:
The Honorable Jimmy Carter
U.S. Secretary of Labor Ann McLaughlin*

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COMMON SENSE ON COMPETITIVENESS

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This spring, Secretary of Labor Ann McLaughlin and I invited many of America's best minds to The Carter Center of Emory University in Atlanta for a Consultation on Competitiveness. More than 100 business and labor leaders, educators and economists, researchers and scientists, politicians and policymakers from throughout the country attended. They shared at least one characteristic: in one way or another, all are experts on competitiveness, having either made their own institutions more competitive or used their knowledge and experience to help others become so.

They shared a single, overriding goal: to help Secretary McLaughlin and me identify the best ideas for helping America compete. Participants came to the consultation aware of America's competitive crisis. Indeed, competitiveness has been discussed and dissected from virtually every angle recently. Hundreds of changes in public policies and private operating procedures have been advanced; one study prepared for our meeting cross-indexed scores of competitiveness-related proposals found in 54 reports that have been published in the past few years. (A list of the reports studied is found on page 24.)

Our goal was to identify the best ideas, the ones that work. These ultimately will be passed on to the next President of the United States as part of the American Agenda, a bipartisan set of recommendations from a group of former administration officials headed by former President Gerald Ford and me.

We wanted our participants to answer a few basic questions. For example, what have you done in your own institutions to improve productivity, quality and marketing, key elements of competitiveness? As you look ahead, what additional improvements do you envision? Finally, what would you recommend to others? In other words, what works, what might work, what are your priorities for the nation?

We wanted workshops, not lengthy lectures or special speakers. All of our participants were experts. They met in some large sessions where speakers addressed parts of the competitiveness "Big Picture," but mostly in smaller working groups that tackled specific problems and solutions. Throughout, in every session during the two-day consultation, they were encouraged to use each other as sounding boards for good ideas.

We think we found some. Many of them were supported by all the attendees, others by only some. We encouraged consensus, but also realized that some of the newer or more controversial ideas from the consultation could become the mainstream solutions of tomorrow. We have included these ideas in this report as well. If the proposals have a common denominator, it is that they make good common sense. And we can begin implementing some of them today.



Secretary Ann McLaughlin, former President Jimmy Carter and Consultation Coordinator Sidney Topol

We began the consultation with the recognition that many of the nation's competitiveness problems are related, sometimes making them seem insoluble. A world-class economy, for example, depends on a high-quality manufacturing base, but in too many ways manufacturing has been neglected. Superior manufacturing, in turn, relies on top-flight research and development, but there are many signs that other nations are gaining ground on our once-commanding lead in technological innovation. Technological innovation depends on well-educated citizens, but the multiple shortcomings of America's education and training system have been amply documented.

Time after time, when discussing one issue, participants zeroed in on others — so that a discussion of manufacturing almost inevitably turned toward the problems of inadequate education and training or America's lack of global awareness. Most participants agreed that all the key issues must be addressed simultaneously; we do not have the luxury of solving problems one at a time.

In addition to the specific issues, several broader themes kept recurring. They included:

- *The need for greater flexibility by individuals and institutions.*
- *The need to reduce barriers between and within organizations and to form new partnerships.*
- *The need to think long-term, beyond the next quarter, semester or collective bargaining agreement.*
- *The need for leadership. Leaders have to take chances and, just as important, be given a chance — to make mistakes, modify programs to fit changing needs, experiment, expand.*

We began the consultation with a sobering recognition of the enormous stakes. If America lets itself slip into second place in world commerce, science, technology and education, we will inevitably see our standard of living slide as well. The expansion that has meant hope for millions of Americans will slow and perhaps stop. As our economy contracts, we are divided into haves and have-nots: an educated elite ready to take advantage of change, and a majority in peril, afraid of change and unable to manage it.

We ended the two-day session with renewed optimism, with a roll-up-our-sleeves sense of determination. As one participant observed, America is like a teenager, full of hope, but with a lot to learn. It is time we began — all of us — to put to work what we already know.

We know a lot — and have the capacity to make our knowledge work for all Americans. As we approach the end of this century, competitiveness is our newest national challenge — and our greatest opportunity.

Jimmy Carter



An Wang and Rosalynn Carter



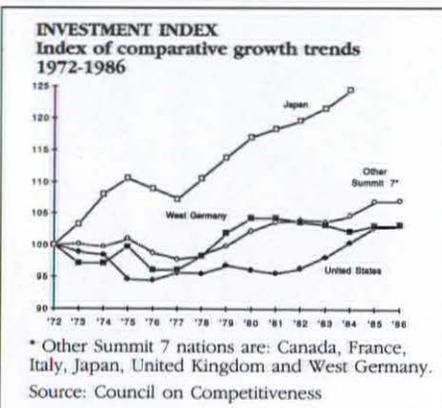
Paul Volcker

EXECUTIVE SUMMARY

The United States faces a competitiveness crisis. The indicators are abundant.

An alarming number of American students and workers do not seem to have the skills needed to succeed in the more demanding jobs of the modern economy. Many American inventions never make it from drawing board to marketplace, or arrive too late — long after aggressive foreign firms have captured customer loyalty. Some American products have been improperly designed or priced too high to compete with top-quality foreign imports. Partly as a result, not enough American companies have penetrated foreign markets with U.S. goods and services.

Furthermore, the United States continues to consume more than



it produces, helping to create an abysmally low national savings rate that undermines the country's ability to finance needed investments in its infrastructure of education, research facilities and factories. Finally, many Americans are unaware that other nations have caught up with, and in some cases surpassed, U.S. performance.

Unless these problems are addressed promptly and decisively, Americans will be saddled with increasing debt, lower standards of living and reduced economic opportunities.

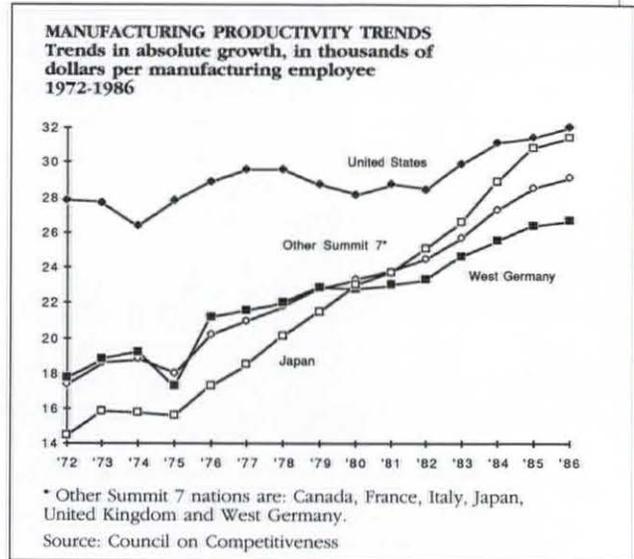
Consultation participants identified several overarching national strategies for helping U.S. companies and workers compete more effectively. Individuals and institutions must become more flexible. Barriers between and within organizations must be reduced and new partnerships formed — between colleges and public schools, between management and workers, among business, labor, education and government. All sectors need to do a better job of thinking and acting long-term, beyond the next quarter, semester or collective bargaining agreement. Better results would come if all areas were improved simultaneously. The United States does not have the luxury of addressing its competitiveness requirements one by one in a static sense; our competitors are dynamic and are attempting to win our markets.

More specifically, consultation participants identified six priorities for action. Within each, specific suggestions were offered.

I. Education and Human Resources

First, the nation must improve its schools and expand its lifelong training programs. Educational reform will require extensive change. Teachers and principals

must be given the authority and autonomy to transform the schools successfully — and be



held accountable for results. Participants offered a number of suggestions for achieving these goals, which included: establishing a minimum of 2,000 model schools nationwide as laboratories for educational change in the next three years; offering all four-year-olds who need assistance a Head Start-type preschool experience; and ensuring that lifelong learning and retraining programs are made universally available to U.S. workers.

II. Research and Development

Second, American know-how must be focused on technological development, and more specifically, on moving American inventions from laboratory to marketplace. As a fitting starting point for change, the next president should revitalize the Office of Science and Technology, appoint a science advisor early and expand the Office's work on competitiveness. To facilitate a

more market-driven approach to technology research and development, corporations should better integrate their research, development, production and marketing functions. Universities should provide expanded licensing and royalty payments to encourage faculty entrepreneurship. Both sectors must increase incentives and rewards to encourage the development of young scientists and engineers.

III. Manufacturing

Third, improving U.S. competitiveness demands not only good ideas, but also doing a better job of making what the nation invents. Despite recent talk about a services-driven, post-industrial society, the manufacturing sector remains the mainstay of the U.S. economy. Manufacturers were urged to tighten product cycles, to maintain productivity growth of at

nology. Above all, manufacturers need to get closer to their markets, thinking globally but treating their customers as if they were right around the corner.

IV. Global Markets

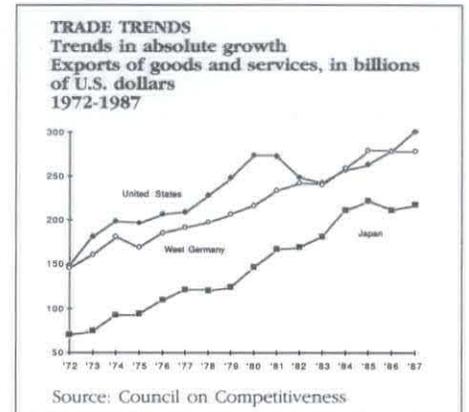
Fourth, boosting American competitiveness demands more than good ideas and well-made products. It also requires an aggressive international sales effort. American businesses, workers and government must make a national commitment to think globally. Government's role should be to encourage U.S. exports — mainly by ensuring stable exchange rates, rigorously enforcing existing trade laws and aggressively seeking to open foreign markets to U.S. firms. Businesses need to seek out niche markets abroad, borrow foreign innovations and employ foreign nationals, and establish foreign alliances, when necessary.

To facilitate these changes, American business needs to be retrained from the top down — with CEOs committing their organizations to foreign expansion and mid-level managers becoming better versed in foreign languages and cultures.

V. Fiscal and Monetary Policy

Fifth, improving American productivity and quality will require a significant national investment in the nation's competitive infrastructure: education and training programs; R&D facilities; manufacturing plants; and global marketing operations. To make such investments possible, the national savings rate must increase from 3-4 percent to 8-9 percent a year. Moreover, the

cost of capital in the United States relative to our trading competitors remains high. To ensure a



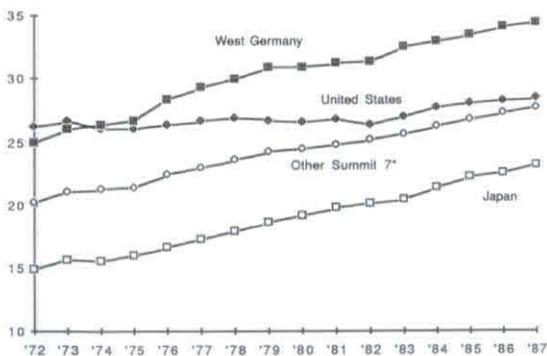
commitment to investment economics, government fiscal policy needs to be restructured.

The main strategy is to reduce the federal deficit substantially by 1993 — with \$60 billion in spending cuts in the next five years, split roughly in thirds among defense, entitlements and other programs. These reductions most likely will need to be combined with some sort of revenue increase. Of the options considered, consumption taxes were the preferred alternative, with an emphasis on raising cigarette, alcohol and gasoline taxes. Although some experts supported a national value-added tax (VAT), it was agreed that more thought needs to be given to the regressive nature of a VAT if consensus is to be forthcoming.

VI. Leadership

Finally, America's public and private leaders must assume responsibility for raising public awareness of the competitiveness crisis, for developing a pragmatic series of solutions and for selling those ideas to their various constituencies. Restoring America's ability to compete must become a national priority.

STANDARD OF LIVING TRENDS
Trends in absolute growth, in thousands of dollars per employee
1972-1987



* Other Summit 7 nations are: Canada, France, Italy, Japan, United Kingdom and West Germany.

Source: Council on Competitiveness

least 2 percent a year, and to commit their organizations to total quality control. Top priorities are to improve teamwork between managers and employees and to expand the use of computer-aided design and manufacturing tech-

EDUCATION AND HUMAN RESOURCES

Americans have valued education highly since the first colleges were established and young scholars studied while their parents invented America. What too many young students lack today, however, are what were once considered primary educational skills: reading, writing, arithmetic, basic logic. Those basic skills are now essential to America's ability to compete.

Just as basic are the training and retraining needs of millions of workers, who now must participate in lifelong learning to keep up with the ever-escalating demands of the modern workplace.

It is easy to assess blame for the country's educational crisis: many children do not have family support anymore; television is the culprit; we are moving beyond conventional skills; teachers are paid too little.

The problem is more complicated than these factors would suggest. In the past the nation agreed on what it meant to be educated. Organized education started in kindergarten, ended in 12th grade for most, after college for some. Increased diversity in society and a decrease in the power of traditional institutions has destroyed that consensus. Today, it is believed that schooling should begin virtually at birth and extend throughout one's career — and beyond. Basic skills must be re-emphasized, and retraining needs to become routine throughout American industry.

Our nation asks more of its schools now than ever before. The schools are expected to teach a wider range of students a diversity of subjects, to provide day-care functions unheard of in previous generations, to act as surrogate parents for students whose families have fallen apart. At the same time, educators are pulled and tugged by every culture or interest group that wants to see its perspective repre-

sented in the classroom. On one point, virtually everyone agrees: education is the key to the future of American competitiveness.

The first step toward real progress is to acknowledge the dimensions of the education and training crisis, consultation participants said. All people — especially students — must see the importance of education to all other endeavors. Competitiveness depends on

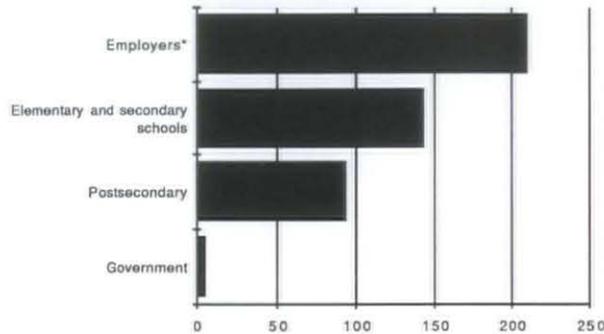
- *Among 17-year-old American high school seniors, only 20 percent are able to write a letter asking for a job; 12 percent can rank six fractions correctly from largest to smallest; 4.9 percent can analyze and use information from a bus or train schedule.*
- *Eight percent of the country's colleges now require foreign language training, compared to 34 percent 15 years ago.*
- *One of every four ninth-graders will not graduate from high school. For minorities and the poor, the rates are higher.*
- *By 1990, 75 percent of American jobs will require education or training beyond high school.*
- *While smaller companies will contribute greatly to future job creation, many lack formal training programs. Half of all formalized private sector training is conducted by only 200 to 300 large companies.*
- *In the next 50 years, 38 million Americans, the majority of them minorities from educationally and economically deprived backgrounds, will join the work force.*
- *More than 90 percent of those who will be employed in 1990 and 75 percent of those who will be working in the year 2000 are already in the work force.*
- *Only 6.4 percent of American 17-year-olds can handle "multi-step problems and algebra" that are taught in high school, and only 51.1 percent can solve "moderately complex procedures and reasoning" taught in junior high school.*
- *In 1987, an estimated 1 million young people dropped out of school and an additional 700,000 students graduated as functional illiterates.*
- *Every \$1 spent to prevent educational failure saves \$4.75 in the cost of remedial education, welfare and crime in the future.*

much more than education, but education makes better managers, provides more future workers with language training and

until later, when solutions will be more expensive, complicated and perhaps too late.

- Schools need to be operated more like businesses, with enough rewards given to the best to encourage all to work hard, and enough risks to encourage sub-standard teachers to leave the system.

THE LEARNING ENTERPRISE
Sources of U.S. education and training, in billions of dollars 1986



* Includes formal and informal employee training
Source: American Society for Training and Development

Whatever specific strategies are adopted to improve the schools — and improvements probably will be community-driven — the cornerstone must be accountability.

- Local schools must be given sufficient authority and autonomy to get results and

- If revolutionary changes are needed, as many participants suggested, the most practical way to introduce and test them is through a series of model programs. Within the next three years, the nation's school districts should try to establish model schools, insulated from institutional pressure. Participants recommended that at least 2,000 such models be started. Teachers, parents, principals and business executives all must be involved in devising these new laboratories for educational change.

- Hungry kids do not learn well. Programs like Head Start put kids into schools with full stomachs. Participants suggested that all four-year-olds who need

cultural knowledge of countries in which we want to compete, produces more and better engineers, and helps us better understand the forces that make for, and perpetuate, our underclass.

Parents, business executives, workers, educators, politicians and students all must be persuaded that they have a direct, personal stake in improving the educational system.

Students must see the connections between quality education and their ability to earn a decent living, to provide for self and family. It is just as important to see the darker side, to show the relationship between inadequate schooling and dead-end jobs, lack of advancement and, in extreme cases, imprisonment.

Adults must understand that the nation has a choice: it can fix the education problem now or wait

be held responsible for success or failure.

- Elected school boards with independent taxing powers should be encouraged, giving local educators freedom to innovate, but holding them accountable for using that freedom wisely.

- Merit pay should reward achievement by outstanding individual teachers and principals; at the same time, inept teachers must be penalized or merit pay becomes just another part of the pay package.



Martina Horner, President, Radcliffe College, and Michael Dertouzos, M.I.T.

assistance should have access to Head Start or a similar program to give them a fair chance at learning and in life.

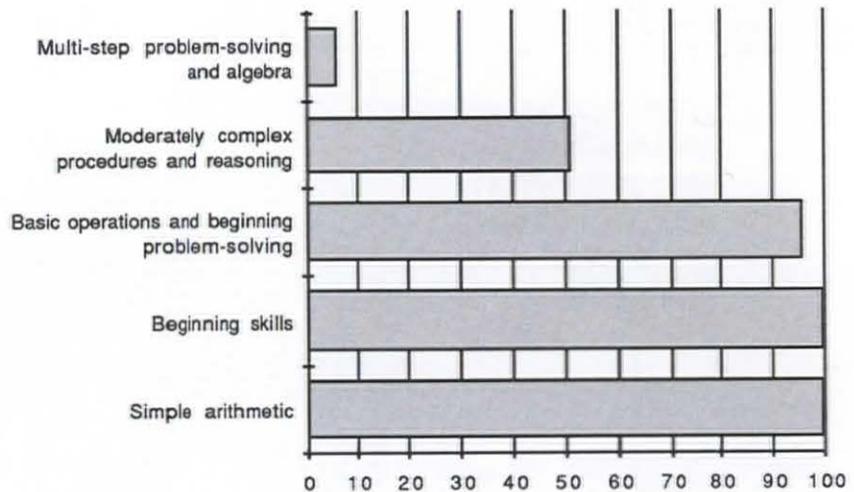
- American workers must keep learning just to keep up. Lifelong learning programs and worker retraining programs need to be available and utilized by all businesses. It is not just a matter of personal growth. The great majority of current employees will still be on the job 20 years from now. No matter how quickly or effectively we reform our educational establishment, the bulk of the work force will consist of present workers for decades to come.

- Those who have left the formal educational system as damaged goods — that is, functionally illiterate — must be given as much remedial training as they need to begin to take advantage of available job opportunities.

America's free public schools have been the envy of the world. They turned an assembly of immigrants into one country, and produced a

MATH REPORT CARD

**Percentage of 17-year-olds proficient in various math skills
1986**



Note: Bottom two levels include material taught in elementary schools, middle two levels in junior high and top level in high school.

Source: National Assessment of Educational Progress

skilled and educated work force that made this country the twentieth century's dominant economic power. As the United States approaches a new century, it can accept no less from its school system. Although circumstances

and specific skill requirements have changed, the central challenge to educators remains the same: teach our children and workers well.

RESEARCH AND DEVELOPMENT

Technological innovation has long been America's strong suit, providing an enormous advantage in our competition with other nations. This has changed. Foreign nations have caught up with, and sometimes surpassed, America's once seemingly insurmountable technological lead in many areas, from basic to high tech industries.

At the same time, moving an idea from mind to market is more complex, cumbersome and costly than ever. The acceleration of new technology has compressed product cycle times significantly,

breakthrough that changes entire industries. Blockbuster inventions make headlines, but they alone are not enough anymore.

While the present system produces occasional breakthroughs, it also tends to produce too many solutions for problems that do not exist or provides solutions too technical or expensive to implement.

The United States needs to adopt a more market-driven approach to R&D, consultation participants urged. Other countries, especially Japan, have reversed the blockbuster process — focusing first on the market demand for the final

each other. Products are improved continuously through a constant give-and-take involving inventors, producers and marketers. It is called tinkering: America used to be the best in the world at it. We must become the best at it again.

Cross-functional teams, dispensing with traditional interdepartmental jealousies, are used in many other countries to help hasten an idea from drawing board to marketplace. In too many American cases, the solution for a given problem may lie just outside a laboratory door or down the hall, but rigidity within the research system prevents the sharing of ideas.

- *Although the United States continues to spend more on R&D than its top four competitors combined, Japan's and West Germany's non-defense R&D investments as a percentage of GNP have been rising faster than America's for the past five years.*
- *In a recent survey of U.S. college and university deans of engineering, physical sciences, life sciences, computer sciences and mathematical sciences, more than half ranked their research facilities as only "fair" or "poor."*
- *Foreign companies and inventors captured 46.8 percent of the American patents awarded in 1987, up from 44.9 percent in 1986 and continuing a 20-year trend. The top three recipients of U.S. patents were Japanese firms.*
- *In U.S. graduate schools of engineering, foreign students represent about 40 percent of enrollments and receive over half of new U.S. doctorates in engineering. And over 50 percent of all U.S. engineering faculty under the age of 35 are foreign-born and the proportion is increasing.*
- *Federal investment in university research facilities and equipment has declined 95 percent in the last 20 years.*

Market-driven R&D is also better at deciding when to pay the costs of pioneer research, and when to be a "fast-follower," lagging slightly behind the cutting edge, but commercializing usable foreign technology when it is appropriate. The national lack of a global perspective sometimes leads to an unwillingness to exploit foreign technology — the "Not-Invented-Here" syndrome.

The market-driven philosophy needs to find a home on campuses as well. While universities will continue to perform much of the basic research in this country, they need to realize that their best professors are not likely to remain in teaching unless they are free to explore some of the profitable possibilities that arise from research. The nation's colleges need closer connections to the industries that ultimately use their research, both to compensate individual scholars and to maintain the vital link between laboratory and marketplace.

so that companies have less time to conceive an idea, put a product into production and beat the competition to market.

America always has been best at the blockbuster invention, the

product and working backward, making incremental refinements as necessary.

Further, Japanese corporations make sure their workers talk to

Expanded licensing and royalty payments for faculty would go a long way toward bringing a professor's salary up to that of his corporate colleague.

Government must begin to act as a research asset and marketing facilitator. A fitting starting point would be forceful action by the next president to revitalize the Office of Science and Technology and to refocus its mission on competitiveness. The president should select a new science advisor soon after his election — both to alert the public to technology's importance in America's future and to pull together the resources of industry, government and higher education in fashioning a comprehensive action agenda.

The science advisor should work with the scientific community to persuade Congress to enact two

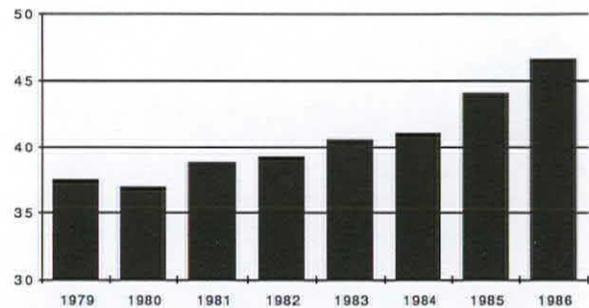
First, the R&D tax credit should be reinstated and made permanent. Second, tax provisions supporting lifelong learning should be reconsidered.

Government also needs to create a climate for a healthy national R&D network, well-connected to industry, schools and business. The lack of coordination among government agencies extends to government/industry partnerships, which pale next to the programs of many other developed countries. For instance, despite recent improvements, transferring the technology from federal laboratories to

— for science and engineering students and faculty members alike.

In the meantime, U.S. immigration policies should continue to

MORE PATENTS GOING OVERSEAS
Percentage of U.S. patents awarded annually to foreigners 1979-1986



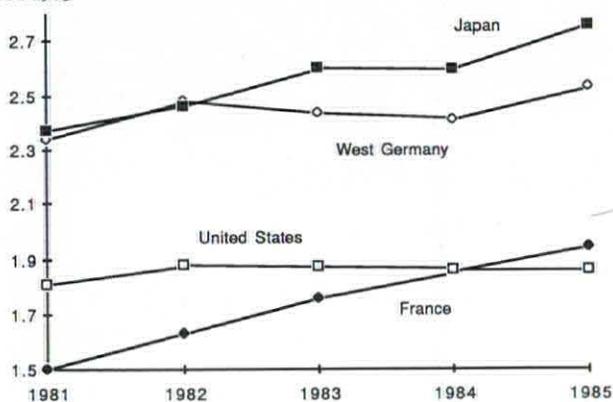
Source: U.S. Patent Office

encourage an influx of foreign-born scientists, whose talents represent a "brain gain" for the United States and whose enthusiasm and energy provide an eloquent testimonial to the opportunity that is still the hallmark of America.

The United States was built on good ideas. America invented modern democracy and agriculture, developed an unmatched transportation system with the locomotive, steamboat, automobile and airplane, cured a host of diseases, and ushered in the computer and biotechnology revolutions, among other accomplishments.

The challenge for America's scientific and engineering community today is to build on that proud heritage — and, in so doing, to make it possible for its manufacturing and service sectors to compete throughout the world.

NON-DEFENSE R&D SPENDING
As a percentage of Gross National Product 1981-1985



Source: National Science Foundation

laws needed to help America's researchers and engineers lead the country's push toward excellence.

scientists and engineers, government and business should increase support for graduate fellowships. To supplement this financial aid, companies should expand their summer internships

MANUFACTURING

Manufacturing remains the mainstay of the American economy, despite all the talk about the "post-industrial society" and the "new service economy." Good ideas are not enough. Unless we can make what we invent more productively than foreign nations, we will continue to lose competitiveness.

Despite a decline in manufacturing jobs over the past few



decades, manufacturing still accounts for a substantial portion of U.S. output, provides entry-level and high-wage jobs, and generates much of the service industry growth. Manufacturing's continual need for better process technology is a powerful spur to industrial research and development; the products of the much-touted new technology literally would never get off the drawing board without a vital, healthy

national manufacturing sector. Furthermore, gains in manufacturing productivity, so essential to national competitiveness, have helped offset flat productivity growth in the service sector.

Finally, merchandise still accounts for the vast majority of American trade. Unless we boost the exports of American-made products, the United States will be unable to make significant reductions in its trade deficit, the most visible symbol of our declining competitiveness.

The devaluation of the dollar buys time to revitalize American manufacturing, but only if the time is used wisely — to develop new technologies and utilize innovative management techniques — consultation participants pointed out. The realignment in the

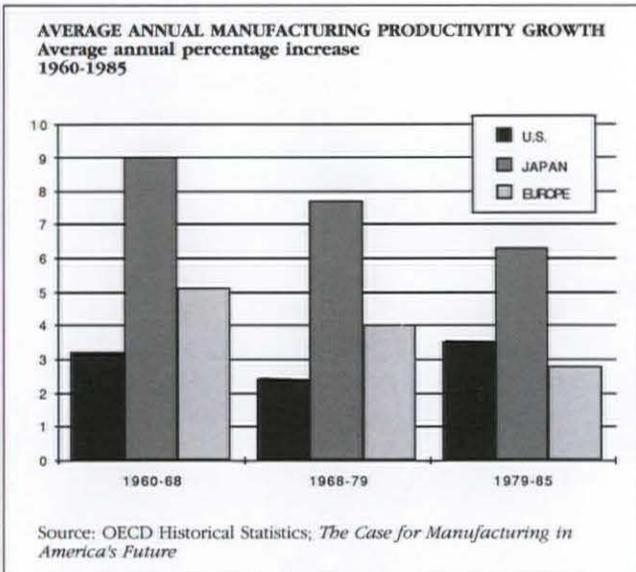
international currency markets has been extremely helpful. As the dollar has devalued some 50 percent against the yen and Deutsche mark since 1985, American goods have become more competitively priced in world markets.

Stabilizing exchange rates is just one way in which the public sector can help revitalize U.S. manufacturers. Reducing the federal deficit, hence boosting the national savings rate, should make more capital available for investment in facilities-modernization programs. Improving America's education and training system should help make available more skilled employees — to manage the businesses, to design and engineer the new

- *Real wages in the United States have been dropping approximately 6 percent a year compared to other industrialized nations.*
- *The cost of capital to American manufacturers is three times the cost in Japan.*
- *Manufacturing employed 19.1 million people in 1987, a decline of two million from 1979.*
- *Manufacturing, despite accounting for only 20 percent of the nation's Gross Domestic Product, has significant spillover effects on other sectors. A 1 percent increase in manufacturing unemployment, for instance, causes unemployment rises of 3.2 percent in the construction industry, 2.4 percent in services and 1.5 percent in retail trade.*
- *An estimated 5 to 15 million manufacturing jobs will be restructured by the end of the century, with an equal number made obsolete. Sixteen million new jobs will be created by 1995, but 90 percent of them will be in the service sector.*

technologies and to operate the machinery on the factory floor.

External progress is just the start, however, participants said. The major improvements must come



from within — from American manufacturers themselves. American business could profit from a concept recently popular in educational circles: back to basics. In this case, the basics are a comprehensive understanding of the manufacturing process as a continuous cycle that must draw on the skills of the entire corporation. All phases of the cycle must be coordinated — from initial idea through production, marketing and distribution. The same fragmentation and linear approach that has slowed the development of American innovations has tended to reduce the efficiency of production as well.

Manufacturers need to get closer to their markets and pay more attention to market share and long-term growth. Steps should be considered to isolate companies from the relentless, short-term demands of shareholders.

While foreign competitors were patiently establishing international distribution and service networks and cultivating customers during the 1970s and 1980s, American producers all too often were focused on quarterly profits. In too many instances, when tariffs, quotas and other trade tools gave

American corporations a temporary advantage over foreign rivals, that breathing space was used to rake in windfall profits instead of being seen as a chance to recapture market share.

Manufacturers need to tighten product cycles, meeting market demands in less time and with products that are as practical to make as they are easy to use. The use of computer-aided design and manufacturing systems, allowing companies to quickly customize products, should become more widespread.

Manufacturers must become committed to improvements in productivity and quality. National productivity goals should be set high: consultation participants

suggested that a worthy goal would be 2 percent growth a year for both the manufacturing and service sectors. Such a level would be a minimal goal for manufacturing, an ambitious one for services.

Organizations must commit themselves to total quality control. American manufacturers should consider providing quality far beyond the level demanded by customers, and demand the same performance from their suppliers. Staff should be provided with universal quality training so that a philosophy of "low rejects" can be transformed into one of "no rejects." Mechanisms such as the National Quality Awards should be used to recognize and reward high-quality performance.

Making these improvements requires constant communication that cuts across all departments, from research to marketing, and that links management and labor into new teams with common goals. Specifically, consultation participants proposed the expanded use of profit-sharing arrangements and programs to increase job-security in the face of rapid technological change. While foreign manufacturers were assembling quality-assurance councils and building worker-management rapport during the past few decades, too many American companies let labor and management drift apart, losing sight of mutual goals. Lack of a "shared stake" by workers and



**William Crutchfield, Jr.,
Crutchfield Corporation**

inadequate communication within factories often led to disastrous quality and productivity slides.

Just as employees must recognize management's needs for efficiency and profits, corporations must boost the investment in their workers significantly, giving them the tools with which to "work smarter" and provide constant training and retraining to help them master new, computer-driven manufacturing technology.

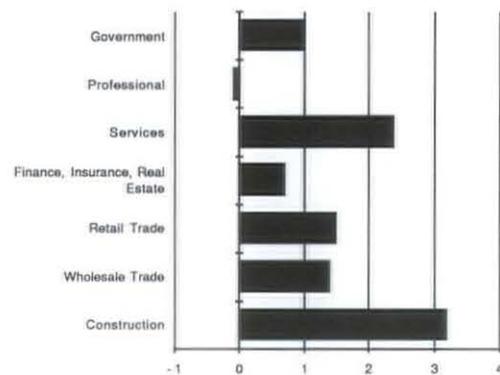
The intelligence and creativity of workers must be mobilized as part of an across-the-board upgrading of manufacturing.

Beyond making the specific improvements outlined above, American manufacturers must take the lead in changing public perception about industry's central role in revitalizing U.S. competitiveness. As manufacturing has lost its luster, too many of America's best and brightest have chosen careers in marketing, finance and law. To attract the next generation and motivate the current one, manufacturing needs to regain its rightful place at the center of American industry. Manufacturing executives have a responsibility to get that message across, even if it takes, as one participant suggested, corralling

the television network presidents in a hotel room and stating manufacturing's case.

Manufacturing is being asked to lead the nation into a new era of economic growth. Such a challenge is nothing new. The country's manufacturing base has invented and re-invented itself for almost 200 years, ever since Alexander Hamilton called on a

SPILLOVER EFFECTS OF MANUFACTURING UNEMPLOYMENT
Increase in sector unemployment rate from one point of manufacturing unemployment 1986



Source: *The Case for Manufacturing in America's Future*

young United States to develop a manufacturing capability to fuel national expansion. The stakes — and opportunities — are equally great today.

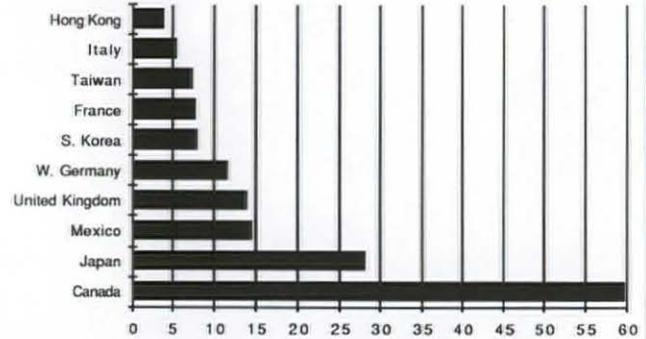
GLOBAL MARKETS

The United States is a trading nation and always has been. American clipper ships took America's best manufactured goods and the crops from its fertile fields and brought back the materials to make more goods, turning a profit both ways. As our country industrialized, American products gained a worldwide reputation for quality and innovation. "Made in America" meant the best.

Today, despite remaining the world's single largest exporting nation, America's share of world trade has slipped. Rapid gains by other nations mean that the United States must work harder to penetrate foreign markets, to

Foreign trade is not a luxury for the United States: because a growing number of domestic jobs are directly tied to exports of goods and services, America's standard of living increasingly reflects our ability to sell abroad. If America can't retrieve its prowess at overseas trade, it will suffer rising trade deficits, fall further behind those countries that do understand and

U.S. EXPORTS
Selected countries, in billions of dollars
1987



Source: Census Bureau

Assuring America's future success as a world trader requires first and foremost a national commitment to think globally, consultation participants said. Government can help in two respects, by making trade a national priority and by creating an environment that facilitates expanded trade opportunities for U.S. firms.

This would mean:

- Stable exchange rates and low capital costs. American exporters have been victimized by exchange rates that priced U.S. goods out of foreign markets and by interest rates that drove up the cost of capital to levels that gave foreign competitors an unfair advantage.
- A well-funded R&D infrastructure and good educational system. American marketers cannot compete if they are selling poorly designed products made by inadequately trained workers.
- Rigorous enforcement of existing trade laws to protect against unfair foreign trade practices and piracy of U.S. patents,

- For the past 15 years, U.S. exports of manufactured goods have grown three percent less per year than those of the rest of the world.
- In 1980, the United States had a \$26.1 billion trade surplus with developing countries in the trade of manufactured goods. By 1986, that surplus had turned into a trade deficit of \$27.9 billion.
- American imports of manufactured goods from developing countries (in Latin America and elsewhere) more than doubled from 1980 to 1984, from \$34 billion to \$70 billion.
- In 1980, the United States imported 14.6 percent of its capital goods. In 1987, the figure was 37.7 percent.
- From 1979 to 1985, the U.S. share of industrial countries' exports declined by 4.3 percent in automatic data processing equipment, 2.3 percent in consumer electronics, 6.3 percent in electronic parts and 2.8 percent in business electronics.

make goods of high enough quality to compete with foreign manufacturers, to identify new markets and to understand the cultures that dictate customer preferences in foreign lands.

exploit the world market and become less and less able to lead, either economically, culturally or politically.

copyrights and other intellectual property. In too many cases, American traders have been stymied by import and distribution barriers erected by foreign nations intent on protecting their home markets while they penetrate ours.

- Multilateral trade legislation that guarantees fair access by U.S. firms into foreign markets.
- Export-promotion programs that help U.S. businesses identify foreign opportunities and penetrate overseas markets. A more aggressive federal trade role also might include passage of antitrust legislation that would expand the degree to which industries could cooperate with each other and with government in foreign ventures. Some consultation participants suggested legalizing cartels for overseas operations.

Governments, however, don't compete in international trade — businesses do.

The most successful American traders take the long view, developing relationships with their customers and patiently establishing distribution and service networks. They have a global perspective, seeing the United States market not as a sanctuary but as an opportunity to explore new ideas.

Successful exporters are not at all bashful about borrowing — and improving — ideas from foreign competitors; they are not afflicted by the "Not-Invented-Here" syndrome. They use foreign

nationals wisely, aggressively seek out niche markets abroad, establish foreign alliances and cooperate effectively with government officials and educators. Their success should be emulated by others.

As a starting point, American business needs to be retrained from the executive suite down. At the top, chief executive officers need to reject the false allure of protectionism and commit their organizations to the multiple, long-term initiatives required to establish, defend and expand overseas marketing

channels. Mid-level executives need more foreign language capability and a better understanding of other cultures. Entry-level workers need a better basic education.

The recent fall of the dollar, and the subsequent surge in exports,



should not be used as an excuse for complacency or quick profits, but as an opportunity to build future markets.

In fighting for our economic future, scapegoating the foreign competition is no answer. Protectionism is no refuge. America invented modern sales and marketing techniques, primarily to service our own booming economy. The challenge now is to hone and refine those techniques and apply them in the new and expanding international marketplace.

TRADE DEFICIT
Current account balance, in billions of dollars
1980-1987



Current account equals the total of trade in goods and services.
Source: Commerce Department

FISCAL AND MONETARY POLICY

Much of the explanation of the long-term U.S. competitive problem rests with low national savings, a high cost of capital and the resulting inadequate level of national investment. Despite a massive inflow of foreign capital, the U.S. net investment rate in the 1980s was lower than in the three previous decades and lower than most of our advanced industrial trading partners. Foreign borrowing was used to finance a

debt and the interest payments on it represent a lien on our goods and assets. They also constrain our independence in both domestic and foreign policy. America's future increasingly is tied to the policy choices of its foreign creditors.

A reduction in the fiscal deficit is the most critical step to restore our national economic health. The deficit, which remained well over \$150 billion in 1987, exacerbates most of the problems related to competitiveness. The

Deficits drive up the cost of capital needed by manufacturers trying to open foreign markets, retrain their workers or buy state-of-the-art equipment to upgrade their facilities. Lack of investment in people and technology translates into low productivity growth. Deficits also worsen the American tendency toward short-term economic planning. The political leadership needed to encourage change and experimentation too often has been preoccupied by deficit-caused, short-term fiscal crises.

- *Net savings in the United States have fallen from 7.8 percent of GNP in 1979 to 2 percent in 1987.*
- *In 1970 American wages were 4.5 times greater than Japan's. By late 1987, that ratio had fallen to 1.2.*
- *Net national product per worker rose only 2.2 percent from 1979 to 1986. Consumption per worker, however, rose 8.8 percent.*
- *Between 1970 and 1985, Japan invested an average of 50 percent more per employee than the United States. Recently the disparity has increased to 100 percent.*

domestic consumption boom and to cover the huge federal government deficit, with little left over to support a major increase in our national investment effort. Federal deficits absorbed two-thirds of our national savings over the last seven years. Without foreign loans, we would have been unable to realize even the relatively low investment rate that we achieved.

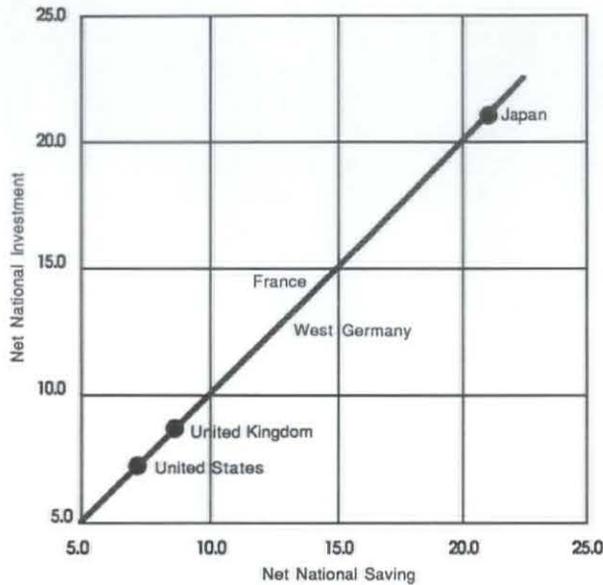
As a nation, we have become increasingly reliant on foreign capital. Our growing foreign

deficit figures are not just abstract numbers. Every dollar used to service the federal debt means less money available for teacher salaries, student aid or new research equipment. Government borrowing to finance its debts means that better ideas flowing from a successful commercial R&D effort will have trouble reaching the market because they cannot find low-cost venture capital.

Consultation participants urged significant reductions in the federal budget by 1993; some thought that a short-term deficit amounting to about 1 percent of GNP would be acceptable. Reducing the deficit by that amount would require spending cuts of about \$60 billion in the next five years; it was suggested that the cuts be divided roughly in thirds among defense, entitlement programs and other expenditures. Others pointed out that a decline in interest rates could save the government additional billions in annual interest payments on federal borrowings.

There was less agreement about the need for, or the magnitude of, revenue increases that might be needed — either in place of or in addition to the proposed spending cuts. Taxes on consumption were the preferred alternative. Increases in cigarette, alcohol and gasoline taxes were mentioned. Some advocated passage of a national value-added tax. Taxing capital gains at death and taxing securities transfers also were

NET NATIONAL INVESTMENT VS. NET NATIONAL SAVING
Average annual percent of Gross Domestic Product
1962-1985



Source: *Beyond the Trade Deficit*

offered as options for raising revenue without the regressive aspects of consumption taxes. Participants agreed that a workable deficit-reduction package must spread the burden, so that one group in society does not feel victimized by another. Deficit reductions should be phased in to avoid recessionary pressure. Ideally, we should coordinate domestic deficit reduction with policies that help stimulate foreign economies. We must work

private savings and investment. Instead of giving preferential tax treatment for R&D expenditures or worker training, for instance, the United States provides tax breaks for vacation homes and other consumer-oriented

together with our allies to develop a plan for greater macro-economic balance in the world economy.

Deficits are not the only cause of America's low savings and investment rates. Compared to other nations, the American tax system fails to encourage sufficient corporate or

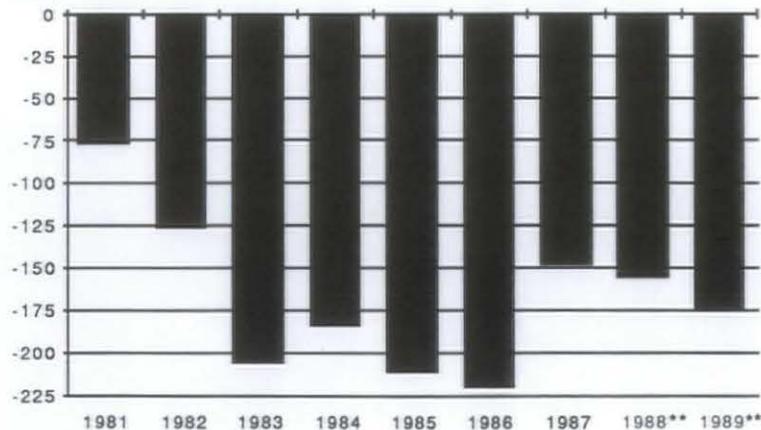
expenditures that add little to the nation's global competitiveness.

Therefore, incentives are needed to encourage American citizens to save rather than spend. Tax incentives for individuals and deferred-compensation plans for employees are two promising possibilities.

By reducing the fiscal deficit and introducing policies to increase private savings, our overall goal should be to increase America's national savings rate to 8-9 percent a year. With this pool of funding, we could finance a greater portion of our investments internally without having to borrow from abroad.

Prudent spending by both individuals and government will allow the nation to chart a competitive future beyond the next budget resolution. Such a commitment will give us renewed control over our own destinies and allow us to pursue an agenda of investment for the future.

FEDERAL BUDGET DEFICIT
In billions of dollars
1981-1989



** CBO forecast

Source: Congressional Budget Office

LEADERSHIP

Consultation participants focused on five priorities for action to bolster U.S. competitiveness:

- Reforming American education and ensuring the universal availability of lifelong learning.
- Restoring the country's research and development capability and focusing more of American inventiveness on products people want to buy.
- Instilling new respect for manufacturing and encouraging more productivity and quality improvements by individuals and industries.
- Reclaiming America's status as a premier world trader.
- Persuading people to spend less, save more and make a national commitment to invest in America's future: schools, factories, research facilities and the like.

Implementing these five steps will require a sixth — the willingness of dedicated public and private leaders to provide a positive vision of change and help foster a renewed commitment to excellence.

The first goal for leaders is to help develop broad public awareness and acceptance of the competitiveness challenge. Because solving the competitiveness crisis will require efforts by all Americans, they first must be convinced that a crisis exists, that it can be addressed, and that their efforts will make a difference.

Leaders must help the public understand the complexity of the overlapping problems. And they must counter the presence of a powerful and vocal minority that argues either that there is no real problem or that America's economic future can be assured with a few quick fixes, such as adjusting exchange rates or passing a trade bill.

To begin with, the right words must be found to describe the economic challenges and opportunities. The American people must understand that declining competitiveness is not an abstraction, but that it has recognizable consequences: lower wages, lost jobs, lowered expectations for future generations, and the humiliation of having "Made in America" no longer universally recognized as the badge of quality.

Finding the right words means shifting the focus of national attention to the long-term — a tough job, made tougher in an age of instant analysis. It means building ownership of the competitiveness challenge, so that Americans are more willing to accept responsibility themselves and slower to seek an external scapegoat — foreigners, for instance, or the schools or politicians.

More important, it means going beyond a pessimistic recitation of the indicators of decline by challenging the American people to respond to a positive vision of change. To be sure, bad news loses elections, and many of the possible corrective actions needed to regain a competitive edge are unpopular: entitlement and defense budget cuts; more

demanding standards for students, teachers, workers and managers; potential tax hikes; reductions in consumption.

Yet, successfully addressing the competitiveness challenge will bring a wealth of benefits: larger paychecks and improved standards of living; increased pride in performance and renewed respect on the world stage; modernized factories and revitalized communities.

The nation needs to identify — and promote — model programs: good schools, companies that nurture innovation and foster productivity growth, businesses that have successfully cracked foreign markets. Quality achievers must be turned into new American heroes. A sustained education and public relations campaign will be needed to help spread the good news and to ensure that the model efforts multiply.

Having established pragmatic priorities for action, public and private leaders have an obligation to spread the word. At regional and national forums, they need to discuss these solutions with each other and with their peers in other professions.

Leaders not only need to talk to each other, they need to carry the standard within their own organizations. All Americans must come to understand that competitiveness isn't some arcane business-school theory. It is all of us, working harder and smarter, for ourselves and our country. Nothing less is worthy of the effort and nothing else will do.

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American Academy of Religion
President
The Park Ridge Center

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Professor of Law
Georgetown University Law Center
Former Chairman
Equal Employment Opportunity
Commission
Trustee
The Rockefeller Foundation

Sam Nunn
U.S. Senator
Georgia
Chairman
Senate Armed Services Committee
Chairman
Governmental Affairs' Permanent
Subcommittee on Investigations

Frank Press

President

National Academy of Sciences

Former Science Advisor to the

*President and Director of the Office
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*Appointed by President Nixon to the
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*Former Member of the U.S. House
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The Carter Center in Atlanta, Georgia is a nonprofit, nonpartisan institution founded in 1982 to encourage the exchange of informed ideas leading to action-oriented policy recommendations. Its primary objectives are to facilitate constructive dialogue among statesmen, scholars, business leaders and other decision makers, promote education based on scholarly research, and to implement outreach programs that impact on a set of carefully selected public policy issues both at home and around the world.

The Center focuses on a number of key foreign and domestic areas — conflict resolution, international affairs, arms control, human rights, and health policy — through ongoing study and research by resident and visiting scholars, conferences, public forums, and special publications.

The construction of The Carter Center facilities was funded entirely by \$25 million in private donations from individuals, foundations, and corporations. Dedicated on October 1, 1986, the complex of four interconnected buildings on 30 acres houses the Jimmy Carter Library and Museum, deeded to and operated by the Federal Government, and The Carter Center of Emory University (CCEU). It is also home to Global 2000, The Task Force for Child Survival, and the Carter-Menil Human Rights Foundation, a consortium of independently funded and administered organizations whose goals and ideals complement and enhance The Carter Center as a whole.