

*Technology and the American Economic  
Transition: Choices for the Future*

May 1988

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**TECHNOLOGY**  
AND THE  
**AMERICAN ECONOMIC**  
**TRANSITION**  
**CHOICES FOR THE FUTURE**

CONGRESS OF THE UNITED STATES · OFFICE OF TECHNOLOGY ASSESSMENT

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## Foreword

In many studies during the past decade and a half, the Office of Technology Assessment has analyzed hundreds of changes in American life that have been brought about by new technologies. In this study, for the first time, OTA steps back from the detailed analyses of individual industries and sectors to take a broad look at the combined impact of new technologies on American society. From this perspective it is possible to describe the opportunities and risks for the nation as a whole that are not apparent in studies targeted on topics that are more narrowly defined. The report highlights strategic choices available to Americans as we negotiate a period of major transformation. The choices we make will have profound consequences for the quality of work and the amenities available to Americans and for America's role of leadership in the free world.

Eight committees of Congress asked the Office of Technology Assessment to assess the new environment in which America's economy now operates as a result of new technologies, a global market, and related changes in consumer attitudes and behavior. OTA was asked to identify areas where existing policy might block attractive avenues of growth and where new policies could facilitate growth. The requesting committees represent a wide spectrum of congressional interest. They include the Senate Committee on Commerce, Science and Transportation; the Committee on the Budget; the House Committee on Energy and Commerce; the Committee on Post Office and Civil Service; the Committee on the Judiciary; the Committee on Public Works and Transportation; the Committee on Education and Labor; and the Committee on Science Space and Technology.

The analysis begins and ends by focusing on people in their role as consumers and as employees. It uses conventional economic accounting procedures to document economic growth, but also employs more qualitative standards for measuring progress in eight basic categories of demand or amenity: food, housing, transportation, health, clothing & personal care, education, personal communication & business, and recreation & leisure. It also uses standard methods for measuring gains in compensation paid to workers, but introduces other ways of evaluating job quality such as opportunities for learning and career advancement, the extent to which work and family responsibilities can be combined, and whether a person can take pride in his or her work.

The first chapter serves as an introduction to the themes developed in the document and a summary and guide to the entire report. Readers will find this a useful way to identify sections on consumption, business structure, trade, employment, education, or other topics that may be of special interest to them. We feel that the major accomplishment of this document, however, lies in the way it helps develop a perspective on these issues—showing how the networks of production and consumption are interconnected, how international and domestic economies are connected, and how changes in one area spread through the nation's entire economic and social fabric.

The study was undertaken with the help of many individuals and institutions around the United States. We owe a particular debt to individuals in the U.S. Department of Commerce and the U.S. Bureau of Labor Statistics who not only provided data and reviewed OTA's work but gave us crucial insights and guidance about their complex resources. Responsibility for the contents of this document, of course, rests with OTA.



JOHN H. GIBBONS

*Director*

# Technology and the American Economic Transition

## Advisory Panel

David Saxon, *Chairman*  
Chairman of the Corporation, Massachusetts Institute of Technology  
Cambridge, MA

Claude Ballard  
Partner  
Goldman Sachs  
New York, NY

William Baumol  
Department of Economics  
Princeton University  
Princeton, NJ

Harvey Brooks  
John F. Kennedy School of Government  
Harvard University  
Cambridge, MA

Richard Crowder  
Senior Vice-President  
Pillsbury Co.  
Minneapolis, MN

Thomas G. Denomme  
Vice-President  
Chrysler Corp.  
Highland Park, MI

Judith Gregory  
Department of Communications  
University of California at San Diego  
La Jolla, CA

Henry A. Lichstein  
Vice President  
Citibank  
New York, NY

Mary Jo Manning, Esq.  
Partner  
Wilkes, Artis, Hedrick, & Lane  
Washington, DC

Ray Marshall  
L.B.J. School of Public Affairs  
University of Texas  
Austin, TX

John J. McNamara  
McCann Erickson  
New York, NY

Kathleen O'Reilly, Esq.  
Executive Director  
Citizens Utility Board  
Madison, WI

Charles F. Sabel  
Department of Science, Technology and Society  
Massachusetts Institute of Technology  
Cambridge, MA

George M. Scalise  
Senior Vice President  
Advanced Micro Devices  
Sunnyvale, CA

Al Sobey  
Director of Energy and Advanced Product  
Economies  
General Motors Corp.  
Detroit, MI

Barbara Starfield  
School of Hygiene and Public Health  
John Hopkins University  
Baltimore, MD

Arthur G. Wirth  
Department of Education  
Washington University  
St. Louis, MO

Howard Young  
Livonia, MI

**NOTE:** OTA appreciates and is grateful for the valuable assistance and thoughtful critiques provided by the advisory panel members. The panel does not, however, necessarily approve, disapprove, or endorse this report. OTA assumes full responsibility for the report and the accuracy of its contents.

# OTA Project Staff: Technology and the American Economic Transition

Lionel S. Johns, *Assistant Director,  
Energy, Materials, and International Security Division*

Henry C. Kelly, *Project Director*

Andrew W. Wyckoff

Daniel J. Chenok

Joy Dunkerley

Review & Counsel

Peter Blair

Audrey Buyn

Walter Parham

Peter Sharfman

Contributors

**Food:** Mark Belle, Charles Abdalla, John Connor, Kenneth Cook, Jack Giacini, Roger Griffin, Steve Hiemstra, Eric Hyman, Chester Mackson, Rosanna Morrison, Stanley Johnson, Bruce Harte, Robert Evenson, Carl Pray, Jonathan Putnam, Theron Dowries, Ronald Cotterill.

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**International Trade issues:** Steven Haggard, Michael Aho, \* Steven Cohen, \* Peter Kenen, \* Raymond Vernon, \* William Wallace, \* John Zysman\*

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**Editorial & Inspirational:** Robin Clarke, Ann Kelly, Robert Niblock, Emilia Govan

**Administrative Staff:** Phyllis Brumfield, Lillian Chapman, Linda Long

**OTA Publishing Staff:** Kathie Boss, James Agee, John Bergling, James Brown, Debra Datcher, Cheryl Davis, Dorinda Edmondson, Chip Moore

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\*Prepared papers for workshops held in connection with this project.

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## List of Reviewers

Karen J. Baehler  
Roosevelt Center  
Washington, DC

Richard S. Belous  
The Conference Board  
Washington, DC

Howard Berliner  
Conservation for Human Resources  
Columbia University  
New York, NY

Anne P. Corter  
Brandeis University  
Boston, MA

John Connor  
Department of Agricultural  
Economics  
Purdue University  
West Lafayette, IN

Elizabeth Deakin  
Institute of Urban and Regional  
Development  
University of California at Berkeley  
Berkeley, CA

Fay Duchin  
Director  
Institute for Economic Analysis  
New York University  
New York, NY

Kenneth Friedman  
Special Assistant to the Deputy  
Assistant Secretary for  
Conservation  
Conservation and Renewable Energy  
U.S. Department of Energy  
Washington, DC

William Garrison  
Institute for Transportation Studies  
University of California at Berkeley  
Berkeley, CA

Bruce Guile  
National Academy of Engineering  
Washington, DC

Carl Hodges  
Director  
Environmental Research Laboratory  
Tucson International Airport  
Tucson, AZ

Kaname Ikeda  
Science Counselor  
Embassy of Japan  
Washington, DC

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David R. Johns Group  
Phoenix, AZ

Ronald Kutscher  
Associate Commissioner  
Office of Economic Growth and  
Employment Projections  
Bureau of Labor Statistics  
U.S. Department of Labor  
Washington, DC

Linda LeGrande  
U.S. Congressional Research Service  
Washington, DC

Jeff S. Luke  
Director  
Bureau of Governmental Research  
and Service  
University of Oregon  
Eugene, OR

Larry Mishel  
Economic Policy Institute  
Washington, DC

Ronald Moroney  
Director  
Innovative Technology and Special  
Projects Division  
U.S. Department of Housing and  
Urban Development  
Washington, DC

Mark Planting  
Interindustry Economics Division  
Bureau of Economic Analysis  
U.S. Department of Commerce  
Washington, DC

Art Rosenfeld  
Lawrence Berkeley Laboratories  
Berkeley, CA

Marc Ross  
Energy and Materials Program  
Department of Physics  
University of Michigan  
Ann Arbor, MI

Laura D. Tyson  
Department of Economics  
University of California at Berkeley  
Berkeley, CA

Amy Walton  
Jet Propulsion Laboratory  
Pasadena, CA

George Wino  
American Textile Manufacturers'  
Institute  
Washington, DC

Paula Young  
Bureau of Economic Analysis  
U.S. Department of Commerce  
Washington, DC