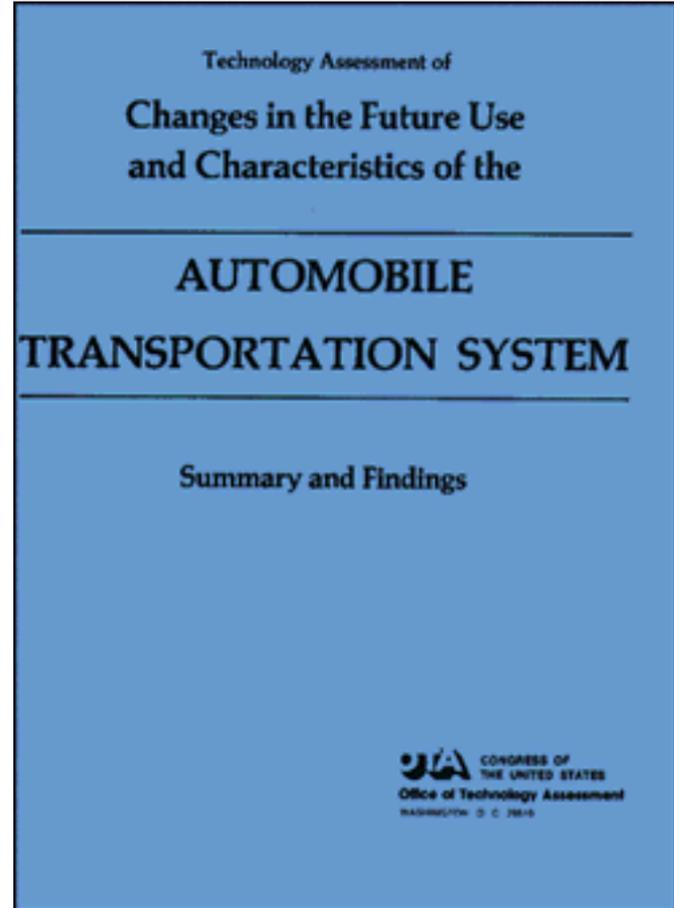


*Technology Assessment of Changes in the
Future Use and Characteristics of the
Automobile Transportation
System—Volume I: Summary and Findings*

February 1979



Library of Congress Catalog Card Number 79-600030

For sale by the Superintendent of Documents, U.S. Government Printing Office
Washington, D.C. 20402 Stock No. 052-003-00649-9

Foreword

This assessment deals with changes in the future use and characteristics of the automobile transportation system that are expected in the near term (by 1985) and those that might evolve over a longer period (through 2000 and beyond). The scope of the assessment is broad and includes not only automobiles but also highways, fuel supply and distribution, automotive repair and service, insurance, traffic management, and law enforcement—in short, all of the industries and services that contribute to use of the automobile as a mode of personal transportation.

The personal mobility provided by the private automobile will ensure its strong appeal for the indefinite future. This report analyzes the restraints of energy supply, environmental impacts, highway safety, and consumer cost on the further development of the automobile transportation system. It discusses Government initiatives that may be necessary to assure such further development.

Detailed projections, policy analyses, and technological forecasts incorporated in this summary and findings report are published in Volume II: Technical Report.



Russell W. Peterson
Director

OTA Transportation Group

Robert L. Maxwell, *Group Manager*

M. Junior Bridge	Debi Chertok	D. Linda Garcia
Larry L. Jenney	H. James Leach	Kathleen G. Lolic
Linda McCray	Joel A. Miller	Paula Walden

Technical Assistance

Raytheon Service Company

Consultants

Richard P. Brennan	Sidney Goldstein
Myron Miller	Donald E. Veraska

Contractors

Energy and Environmental Analysis—principally: Robert L. Sansom and James N. Heller.

International Research and Technology—principally: Robert U. Ayres.

Purdue University, Center for Interdisciplinary Engineering Studies—R. Eugene Goodson and Kenneth R. Friedman.

Science Applications, Inc. —David A. Coutts and Yardena Mansoor.

SRI International—principally: Ronald L. Braun, David A. Curry, Mark D. Levine, Thomas F. Mandel, Randall J. Pozdena, Robert S. Ratner, Peter Schwartz, and Philip D. Umholtz.

System Design Concepts—principally: Lowell K. Bridwell, Joseph R. Stowers, and Barbara Wauchope.

The Institute for Safety Analysis—Robert Brenner,

Urban Institute—Melvin Cheslow and Gerald K. Miller.

OTA Publishing Staff

John C. Holmes, *Publishing Officer*

Kathie S. Boss Joanne Heming

OTA Automobile Assessment Advisory Panel

R. Eugene Goodson, *Chairman*
Institute for Interdisciplinary Engineering Studies
Purdue University

William G. Agnew
Technical Director
General Motors Research Laboratories

Leo Blatz
Executive Officer
ESSO Inter-America, Inc

John J. Byrne
Chairman of the Board
GEICO and Affiliates

B. J. Campbell
Highway Safety Research Center
University of North Carolina

Anne P. Carter
Department of Economics
Branleis University

Frank W. Davis, Jr.
Transportation Center
University of Tennessee

Clarence Ditlow, III
Center for Auto Safety

Lament Eltinge
Director of Research
Eaton Corporation Research Center

Norman Emerson *
Executive Assistant to the Mayor
City of Los Angeles

William Haddon, Jr.
President
insurance Institute for Highway Safety

Kent Joscelyn
Highway Safety Research Institute
University of Michigan

Joshua Menkes
National Science Foundation

Wilfred Owen
The Brookings Institution

Archie H. Richardson
President
Auto Owners Action Council

Angela Rooney
Upper Northeast Coordinating Council

Richard H. Shackson **
Director of the Office of Environmental Research
Ford Motor Company

S. Fred Singer
Professor of Environmental Sciences
University of Virginia

Lawrence J. White***
Graduate School of Business Administration
New York University

Howard Young
United Auto Workers

*Now Regional Representative of the Secretary, Region IX, U.S. Department of Transportation.

**Now Assistant Director for Transportation, Energy Productivity Center, Carnegie-Mellon Institute of Research

***Now Council of Economic Advisors.

†Resigned from the panel before the assessment was completed.

The OTA Automobile Assessment Advisory Panel provided valuable advice, critique, and assistance to the OTA staff throughout this assessment. Their participation, however, does not necessarily constitute approval or endorsement of this report. OTA assumes sole responsibility for the report and the accuracy of the content.