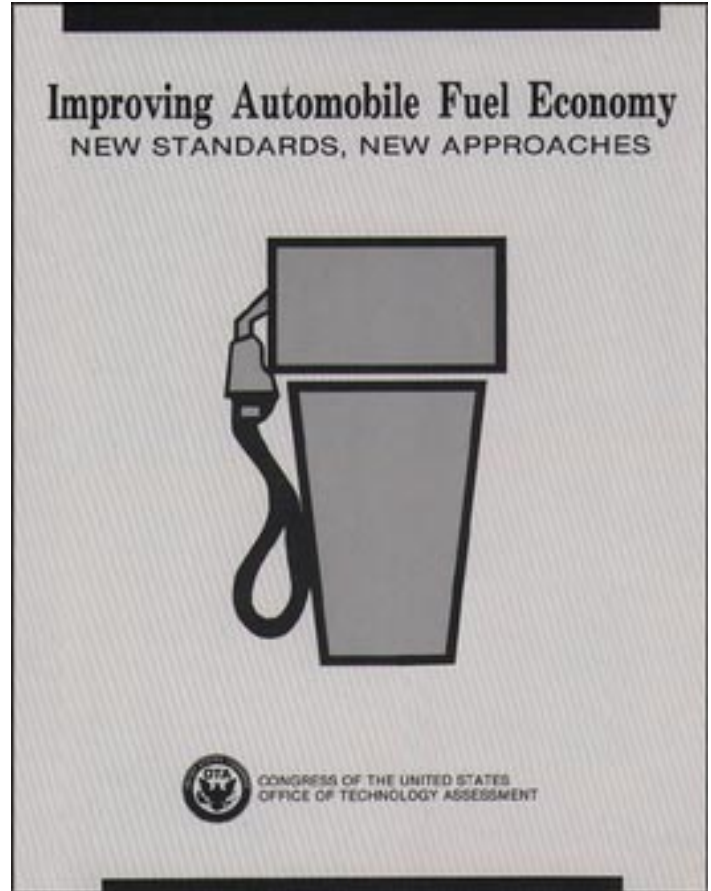


*Improving Automobile Fuel Economy: New  
Standards, New Approaches*

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## Foreword

Congress is again engaged in a vigorous debate about the future of U.S. energy policy. Key issues in this debate are the ongoing problem of rising oil imports and their effect on national security, balance of payments, emerging concerns about global climate change, and concerns about the health and competitive stance of American industry.

A major policy option in the debate, raising the efficiency of the U.S. automobile fleet by increasing new car fuel economy standards, intersects all three key issues:

- . Oil imports and national security. Automobiles consume about one quarter of all oil consumed by the U.S. economy; light-duty vehicles (autos plus light trucks) account for nearly four tenths of all U.S. oil consumption.
- . Global warming. The U.S. light-duty fleet accounts for about 63 percent of U.S. transport emissions of CO<sub>2</sub> and about 21 percent of total U.S. fossil fuel CO<sub>2</sub> emissions. Thus, the fleet is an obvious target for global warming mitigation programs.
- . Competitiveness. Automobile sales and total expenditures represent an important part of the U.S. economy, with new car sales representing about 2 percent of the gross national product (GNP) and total auto expenditures about 10 percent of GNP

A variety of fuel economy bills and amendments have been introduced, ranging from Senate Energy and Natural Resource's S. 341, which leaves standard setting to the Secretary of Transportation, to H.R. 446, which requires a 60-percent improvement in corporate average fuel economies by the 2001 model year. In weighing the various proposals, Congress must grapple with several crucial issues, all controversial:

- . Are regulations the wisest course for saving transportation energy?
- . what levels of fuel economy are technically and economically feasible, by what dates?
- . What form of standard will deliver high levels of fleet fuel economy with the least market distortion?
- . What types of safety impacts might be expected if high fuel economy levels are demanded, and what measures would minimize any adverse impacts?

Inherent in all these issues is the need to sustain the health of the U.S. automotive industry.

This OTA report responds to a request by the Senate Committee on Energy and Natural Resources to examine the fuel economy potential of the U.S. fleet and to assist Congress in establishing new fuel economy standards. In responding to this request, we addressed all but the first of the issues listed above: we have *not* tried to determine whether new fuel economy standards would be inferior or superior to other means to improve fleet fuel economy or, in a broader context, to reduce oil use in highway passenger travel. We recognize that a full examination of all options open to Congress should include the examination of a variety of conservation options including gasoline taxes, traffic control plans, gas guzzler/gas sipper taxes and rebates, improvement of competing mass transportation systems, and so forth. OTA expects to address these and other options in a future study on transportation energy conservation.

**/fzf#**  
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