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The Honorable Charles E. Grassley
Chairman, Subcommittee on Administrative
Oversight and the Courts
Committee on the Judiciary
U. S. Senate

Dear Mr. Chairman:

This responds to your June 6, 1997 letter expressing concerns about our March 6, 1997 report to the Chairman, House Committee on Ways and Means, entitled TAX POLICY: Effects of the Alcohol Fuels Tax Incentives (GAO/GGD-97-41).

Your primary concern seems to be whether our report gives the appearance of being a cost-benefit analysis while it is not. In essence, our report provides a straightforward and balanced discussion of the benefits and costs of the alcohol fuel incentives for particular groups: ethanol producers, corn and other farmers, and consumers and producers of food and energy. However, our report is not a cost-benefit analysis of the overall impact of the incentives on the national economy and the text explicitly states the limits of our work. Such an analysis would require more information than we had, including the effects of oil and gas subsidies on ethanol production. In addition, as the report states, the benefits and costs to particular groups would not necessarily be included in a cost-benefit analysis of the impact on the economy because some benefits to one group, such as higher corn prices for farmers, result in costs to another group, higher food prices to consumers.

We have reviewed our report and its development in light of your letter and are satisfied that the report was prepared in accordance with generally accepted government auditing standards, our own policies and procedures, and with sound economic principles. For example, the staff involved in preparing the report had expertise in federal farm policy, energy security, and environmental protection as well as in economic analysis. In addition the draft was subject to GAO's internal review, including our Office of the Chief Economist and review by five executive branch agencies.

The enclosure to this letter provides a detailed response to each of your questions. I trust that this information addresses your concerns. I would be glad to meet with you if you have any further questions.

Sincerely yours,

Lynda D. Willis

Lynda D. Willis
Director, Tax Policy and
Administration Issues

Enclosure

GAO RESPONSES TO SPECIFIC QUESTIONS AND CONCERNS

Questions 1 and 2: Why did you choose to present the benefits of the ethanol tax incentives by presenting them in terms of a percentage of a base value, yet chose a different presentation standard--1996 constant dollars--to describe the "costs" to the federal treasury? Did you not comprehend the obvious. . . that by using two different standards that you were creating an exaggerated impression of the costs, yet a deflated impression of the benefits? . . . "Moreover, if the benefits of ethanol production and use had also been delineated in constant dollars, the benefits of the program would be seen to far outweigh the costs." (page 2).

We were asked to identify the various groups benefitted or disadvantaged by the alcohol fuels tax incentives. In most cases we did not have sufficient data to make monetary estimates of benefits and costs; the best we could do was to indicate the direction of the effect. For two of the groups that benefit most directly from the incentives—ethanol producers and corn farmers—the report provides considerable detail about why we could not make monetary estimates of their benefits. (See pages 11 and 12 of the report.)

We provided dollar estimates of excise taxes forgone because the requester had a specific interest in the impact on the Highway Trust Fund and it was possible to make reliable estimates. It is our common practice, when reporting dollar amounts over a lengthy period, to convert those amounts to constant-dollar values. Because inflation erodes the purchasing power of a dollar, comparing dollar amounts over long periods of time without making such an adjustment would be misleading.

Summarizing the above, we chose the units in which to present our answers on the basis of the scope of our work and the availability of data. Since no overall comparison of costs and benefits was intended, it was not necessary to express in comparable terms the estimates of costs and benefits to particular groups. Our choices and our subsequent work neither exaggerated the costs nor deflated the benefits of the alcohol fuels tax incentives.

Our report does not reach a conclusion regarding whether the overall benefits to the economy of the incentives outweigh their costs. The benefits to the economy from the alcohol fuels incentives would include the direct value to consumers of the additional fuel produced minus production costs, the value of any environmental benefits, the value of any increase in energy security, and the value of reducing any distortions caused by other subsidies, such as subsidies to the oil and gas industry. We did not reach a conclusion about overall benefits and costs for several reasons, one being that we did not examine

the value of reducing any distortions caused by other subsidies. Furthermore, many of the benefits to particular groups described in the report take the form of price changes, for example corn farmers benefit from increased corn prices. Such price changes are not net benefits to the economy because such a change, while a benefit to corn farmers, is a cost to consumers of corn.

"The report is most egregiously flawed by giving the appearance of being a cost-benefit analysis when it clearly is not." (page 2)

The requestor's four questions are explicit and none of the four ask for a cost-benefit analysis. Further, our response to the questions does not include a comprehensive measurement of benefits and costs to the U.S. economy; rather, our report described the benefits and costs of the alcohol fuel incentives for particular groups—ethanol producers, corn farmers, other farmers, and consumers and producers of food and energy—and pointed out that benefits to one group could constitute costs to another. Our responses to the requestor's questions did contain information on the cost of producing ethanol, relative to substitute alcohol fuels, and on the environmental and energy security impacts of the incentives, which could be used in a cost-benefit analysis; however, in providing that information, we stated that a cost-benefit analysis would have to include additional information, such as the size of preexisting distortions in resource allocation caused by tax incentives for petroleum.

Question 3: Why did you totally ignore GAO's many previous reports which concluded net savings to the U.S. government resulting from increased farm income and reduced farm program costs? "The GAO has previously performed comprehensive cost-benefit analyses concluding net savings of more than \$8 billion. . ." (page 2). . . . Question 4: Was it your intention to deceive Congress and the public, or was this the unavoidable outcome given the narrow, specific nature of the questions you were required to answer?

We cited and used five previous GAO studies, four of which focused on alcohol fuels. In referring to the 1995 report we did for you (Ethanol Tax Exemption, GAO/RCED-95-273R), we explained in detail why our previously estimated impacts of removing the incentives would likely be different today due to the passage of the Federal Agricultural Improvement and Reform (FAIR) Act of 1996.

In our 1995 report mentioned above, we developed estimates, based on certain assumptions, of the potential fiscal effect on the U.S. Treasury of eliminating the tax incentives for alcohol fuels. The scope of that study was also limited in that we produced

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estimates for only two scenarios under specific assumptions about actions the Secretary of Agriculture might take affecting corn acreage. We noted that the two scenarios did not portray the full range of options then available to the Secretary and that different assumptions would have produced different results.

We do not believe that the questions we answered in our most recent report were so narrow as to bias the outcome of our analysis. The issues that we reported on included which particular groups were benefitted or disadvantaged by the alcohol fuels tax incentives, the availability of lower cost substitutes, the environmental and energy security benefits, and the cost to the Highway Trust Fund.

"First, the report repeatedly refers to foregone revenues and not HTF [Highway Trust Fund] revenues. Second your report fails to note the mitigating effects of the current HTF surplus or the ISTEA formulas which protect states from losses of highway construction monies resulting from the use of ethanol-blended gasoline." (page 2).

Section headings in the body of our report and in Appendix II refer specifically to the Highway Trust Fund. The term Highway Trust Fund is used throughout our report. Our scope was restricted to revenue flows into the Highway Trust Fund. We did not address spending out of the Highway Trust Fund.

Questions 5 and 6: Why did you bury your admission on page 23 that this report "should not be viewed as a cost-benefit analysis," instead of highlighting this crucial point at the beginning? Why did this admission only come through the prodding of and in response to Agency comments? Moreover, while you stated that you agreed with the Agency comments that the report was not a cost-benefit analysis, and that clarifying statements were added, it is not apparent that any such clarifying statements were, in fact, added to the final report."

Because our requester did not ask for a cost-benefit analysis and our responses did not provide one, we did not think that the report would be considered one. The questions we addressed were listed on page one of the report. We added clarifying language to make clearer that benefits to one group in the economy may be more or less offset by costs imposed on other groups.

Questions 7 and 8: Why did you decide to ignore these comments [Agency comments encouraging GAO to take into account the considerable consumers

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savings attributable to alcohol fuel tax incentives], and to summarily dismiss the benefits to consumers? . . . Why did you fail to do the math and report to Congress and the public that even using API's low estimate, that savings to consumers would equal \$270 million per year?

The report explains that consumers both benefit and incur costs from the alcohol fuel incentives. As we discussed in our response to your questions 1 and 2, we did not have data to reliably and completely account for these offsetting effects.

Question 9: Why did you fail to report that the elimination of the alcohol fuels tax incentives would create additional consumer costs in the reformulated gasoline markets? . . . "Other estimates . . . suggest that the consumer impact on RFG would be much higher (between \$0.03 and \$0.05) including a GAO report issued just last fall (GAO/RCED-96-121).

On page 13 of our most recent report, we describe the effects of the tax incentives on the prices faced by both consumers and producers of reformulated gasoline and other substitute fuels. We report an estimate by the Energy Information Administration that removing the incentive would increase the difference in price between reformulated gasoline (RFG) and conventional gasoline by about 1 cent per gallon. Page 5 of the cited prior GAO report states that the price of RFG in 1996 was as much as \$0.05 higher than conventional gasoline and could be as little as \$0.03 higher. The report did not address the issue of how much more RFG would cost if ethanol were unavailable.

"In certain areas, such as Las Vegas, Nevada, oxygen content requirements exceed the level provided by MTBE and other oxygenates. Only 10-percent ethanol blends can provide the level of carbon monoxide reduction required by law." (page 4).

According to fuel emissions analysts at the Environmental Protection Agency (EPA), non-ethanol oxygenate blends could be used to meet the air quality standards in these areas.

"Santa Monica, California has a serious groundwater contamination problem caused by MTBE and the State of California has initiated mandatory testing for MTBE in groundwater supplies." (page 4).

Santa Monica does have a serious groundwater contamination problem caused by MTBE. According to EPA, the city has detected MTBE concentrations of up to 610 parts per

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billion in the five wells in its main groundwater source and lesser concentrations in another groundwater source. The suspected sources of the MTBE contamination are underground fuel storage tanks and pipelines for oil products.

The state of California has recently tested for MTBE under a voluntary measure to obtain a representative sampling of state groundwater supplies. The preliminary results show that MTBE contamination in groundwater supplies currently is not a significant threat to public health, as very few sites around the state produced measurable levels of MTBE.

EPA does not require monitoring and reporting of MTBE in drinking water. However, in late June, EPA officials told us that, based on limited information voluntarily supplied to EPA by state agencies, four of the 51 groundwater systems that reported one or more MTBE detections to EPA reported concentrations at or above the lowest level in EPA's draft health advisory.

"While similar benefits may be achieved by using other clean-burning fuel components, it is still inescapable that *there are clear and demonstrable air quality benefits attributable to the use of fuel ethanol.*"

There are air quality benefits attributable to fuel ethanol. However, it is generally acknowledged that air quality benefits approximately equivalent to those from using ethanol-blended fuels may be achieved by using similar clean-burning fuel components. Our report states that although use of ethanol may have been beneficial, the use of (non-subsidized) substitutes to meet air quality standards are likely to have been equally beneficial.

Question 10: Why did GAO fail to acknowledge the well-established air quality benefits attributable to the use of fuel ethanol?

Our evaluation of the air quality benefits of fuel ethanol was based on the empirical literature on fuel characteristics and emissions and air quality and also on interviews with air quality and energy experts. Our major sources of information were the Environmental Protection Agency (EPA) and the Department of Energy (DOE). Both EPA and DOE experts told us they believed that, if alcohol fuels had not been subsidized, air quality would not have been affected. They further said that they believed that there would be no effect on air quality if alcohol fuels were no longer subsidized. We believe that our evaluation accurately reflects the best evidence available.

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Question 11: Why did GAO fail to warn of the serious questions regarding the health risks involved with MTBE, which undermines GAO's premise that MTBE can replace ethanol without risk of environmental degradation?

Earlier investigations into possible adverse health effects of MTBE did not find any health effects. As reported in the Department of Energy's publication, The Energy Information Administration's Assessment of Reformulated Gasoline (October 1994): "The EPA has continued to support the use of MTBE as a fuel oxygenate citing the lack of any substantial evidence that MTBE poses a threat to health." This conclusion was based on studies of short-term health effects (for example, dizziness or nausea from breathing gasoline oxygenated with MTBE).

Since our report was issued, we learned from EPA that the White House Office of Science and Technology Policy (OSTP) has completed a draft report assessing the wintertime oxygenated fuels program. It is our understanding that OSTP plans to release its report in July of 1997.

Questions 12, 13 and 14: Given the large and growing imports of MTBE--which GAO argues will replace ethanol in the absence of tax incentives--why did GAO decide to measure ethanol's energy security benefit against the much larger crude oil supplies instead of the smaller MTBE supplies? Did you not realize that by framing your discussion of energy impact by measuring ethanol's energy security benefit in relation to its displacement of crude oil instead of MTBE, that you would be obscuring the importance of ethanol in reducing the need for MTBE imports? Why did GAO fail to issue a statement describing our increasing dependence on imported MTBE, the cost associated with that dependency, and the energy security benefit of displacing imported MTBE with domestically produced, renewable ethanol?

We reported on ethanol's current displacement of petroleum and its potential to substitute for petroleum in the future because one of the original justifications for the tax incentives was to encourage such substitution. As we note in our report, the U.S. vulnerability to disruptions in MTBE supply is not comparable to its vulnerability to disruptions in oil supply. A disruption of MTBE supply is probably less likely than an oil supply disruption because MTBE has more widely varied potential sources of supply. Moreover, because the volume of MTBE consumed in the United States is dwarfed by petroleum consumption, the effects on the U.S. economy of a disruption in MTBE supply would be minimal compared to those of a petroleum supply disruption.

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Question 15: Since GAO did attempt to diminish the value of ethanol by comparing it to crude oil, why did GAO choose not to include in this most recent report the work it has produced in recent years detailing the billions of dollars of indirect oil tax subsidies that take the form of defense expenditures and foreign assistance to protect our oil supply lines from the Middle East?

We concluded in our report that the alcohol fuels incentives do not significantly reduce petroleum imports. Therefore, defense expenditures and foreign assistance to protect oil supply lines from the Middle East were appropriately beyond the scope of this report.

Question 16: What purpose was served by Appendix I, Chronology of the Legislation and Events Affecting Ethanol Fuel Use?

The purpose of that appendix was simply to provide readers with background information on factors, other than just the tax incentives, that have affected ethanol use over the years. Much of the information in that appendix came from chronologies published periodically by the Department of Energy.

Question 17: Was the decision to include this material influenced by information from or recommendations by the American Petroleum Institute?

No. The decision to include this material was in no way influenced by the American Petroleum Institute.

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