Written Statement of John D. Graham, Ph.D., Dean, Indiana University School of Public and Environmental Affairs

Testimony Prepared for the OMB-OIRA Oversight Hearing, Committee on Oversight and Government Reform, House of Representatives, United States Congress

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My name is John D. Graham. I am Dean of the Indiana University School of Public and Environmental Affairs (IU-SPEA), a large professional school with over 2,000 students and about 100 full-time faculty on two campuses (Bloomington and Indianapolis). IU-SPEA's graduate programs in public affairs are consistently ranked in the top five in the nation, and we are recognized for our strengths in public budgeting and finance, public management, environmental policy and non-profit management. Prior to leading IU-SPEA, I was Dean of the Pardee RAND Graduate School at the non-profit RAND Corporation in Santa Monica, California.

My doctoral degree (1983) is in urban and public affairs from Carnegie-Mellon University where I studied the analytic tools of decision analysis and benefit-cost analysis. My doctoral dissertation forecasted the benefits and costs of the introduction of frontal airbags into new cars, work that was later cited in pro-airbag decisions by the U.S. Supreme Court and the U.S. Department of Transportation. During a post-doctoral fellowship at Harvard (1984), I also learned the tools of risk analysis and management, with emphasis on their application to environmental problems. I served for almost twenty years as a professor at the Harvard School of Public Health, where I also launched the Harvard Center for Risk Analysis (1990-2001). Several years ago I received the Distinguished Lifetime Achievement Award from the Society for Risk Analysis, a worldwide membership organization of 2,000 scientists and engineers dedicated to advancing the tools of risk analysis.

From 2001 to 2006 I served in the George W. Bush administration as Administrator, Office of Information and Regulatory Affairs, Office of Management and Budget. In this capacity, I devoted much of my time and energy to improving the process of regulatory analysis in the federal government. My firm conviction is that a stronger process of regulatory analysis can result in regulations that produce more benefits and fewer costs than result from illinformed regulations.

## ECONOMIC DISTRESS AND THE NEED FOR REGULATORY REFORM

The Committee's oversight hearing today occurs at a time when our nation's economy is in a precarious position. The financial meltdown of 2007-8 produced a severe recession, arguably the most severe since the Great Depression of the 1930s. Our nation's unemployment rate rose rapidly from less than 5% in early 2008 to a peak of 10.2% in October 2009. There is some evidence that a recovery is underway. Indeed, the unemployment rate fell steadily last year. However, the last five months of 2011 have been basically bad news on the jobs front: the unemployment rate has remained above 9.0%. And even this large rate of unemployment is understated because people who have given up looking for a job are not counted in the official unemployment rate.

Although much is unknown about what causes recessions, recoveries and persistent unemployment, one point is clear: a key feature of any sustained recovery will be fewer layoffs and more hiring by private businesses. And it has been well known for decades that the regulatory climate faced by businesses is one of a suite of important factors that influence decisions by businesses to invest in the future. (Other factors include business and consumer confidence in the future, the economic forces of globalization, trade policy, the threat of lawsuits against business, and the tax and fiscal policies of the government). When business leaders face uncertainty about federal regulation (and especially when they fear the imposition of burdensome new regulatory compliance obligations), they are understandably reluctant to make promising yet risky investments in the future of their businesses and the future of our nation's economy.

At the present time, businesses in virtually every sector of the American economy – manufacturing, energy, agriculture, health care, financial institutions, higher education and others – will soon be subjected to new federal regulatory requirements that impose expensive compliance obligations. Some of those new regulations were authorized by the Congress in well-intended legislation aimed at preventing future financial meltdowns or improving our nation's health care system. Other new regulatory programs are being initiated by the Obama administration, such as the complex set of rules aimed at slowing the pace of global climate change.

It is encouraging that President Obama and his leadership team at OMB-OIRA are aware of the precarious state of our economy and are taking modest steps to reduce unnecessary regulatory burdens. For example, the Obama administration has an organized effort underway to reduce the compliance burdens associated with existing regulations at multiple agencies. Most recently, OMB returned to EPA for reconsideration an ambitious rule that would have caused many communities in America to be classified as a "non-attainment area" for ozone under the Clean Air Act. While EPA's laudable objective is to reduce the adverse health consequences of breathing smog in urban communities, the unfortunate side effect of the proposed rule would have been a disincentive for businesses to expand production in the numerous, newly defined "non-attainment" areas. Since the EPA rule was not compelled by statute at this time, I think President Obama was correct to defer adoption of the rule until a later date, hopefully when the state of our economy is less precarious.

# CONCERNS ABOUT OIRA'S ACTIVITY IN THE OBAMA ADMINISTRATION

While it is encouraging that the Obama administration is becoming more sensitive about the economic burdens of federal regulation, and is taking some steps to reduce those burdens, I am concerned that the Obama administration is not being disciplined enough about reviewing the technical quality of the cost-benefit analyses used to support federal regulatory initiatives. Let me explain the basis of my concerns, since I am certainly not aware of exactly what is happening inside the federal government on a day-to-day basis.

First, at the outset of the Obama administration, OMB raised expectations that a new, modernized executive order on regulatory oversight would be issued. In fact, the Obama administration took the unusual step of seeking public comment on how an improved executive order should be crafted. Numerous comments were received. The new and highly qualified OIRA administrator, Professor Cass Sunstein, had already written extensively, in the academic literature, on the need for a modernized executive order to revamp and strengthen OIRA.

As one of the world's leading authorities on this topic, Professor Sunstein was obviously quite capable of drafting an improved order. For reasons that are not apparent, no improved executive order was ever issued. I believe this inaction was an important first misstep by the administration because this executive order is rightly perceived by the federal agencies (and the stakeholders in this town) as the formal foundation of the power of OMB-OIRA vis-a-vis the regulatory agencies. By failing to issue an improved executive order, the Obama administration was effectively telling everyone in this town that OMB-OIRA will have to live with less than what they need. It is not too late for the Obama administration to correct this perception. In fact, now would be a superb time for President Obama to issue a strong executive order boosting the role of cost-benefit analysis and OIRA in the federal regulatory process. Imagine the encouraging signal that this action would send to the business community in America.

Second, all of us who track the trends in federal regulations are aware that the number of costly new regulations during the Obama administration has been steadily increasing. The number of such costly rules now pending in agencies or at OMB is also on the rise. These data are the foundation of the critics who claim that the policies of the Obama administration are "anti-business". In defense of the Obama administration, it should be noted that the estimated benefits of federal regulations are rising even faster than the estimated costs, and thus we have the encouraging claim by Professor Sunstein that the overall net benefits of federal regulations are increasing. (I guess this is a case of "doing better, but feeling worse"). If Professor Sunstein's claim is true, this is very good news but I fear that there may be a serious and systematic flaw in the benefit and cost numbers: the regulatory agencies may have their "thumb on the scales" when the benefit and cost numbers are generated, and there is little public evidence that OIRA is a vigorous force in ensuring the integrity of the analytic claims of agencies. I elaborate on this point below in the context of a case study of recent auto mileage standards.

Finally, the most potent power that OIRA possesses is the "return" letter. Basically, when OIRA "returns" a new rule (proposed or final) to an agency for reconsideration, OIRA is telling the agency that the quality of the "regulatory package" (draft rule plus analysis) must be improved before OIRA will "clear" (i.e., approve) it. When OIRA returns rules to agencies with a public letter, there is no ambiguity about the power of OIRA. On the other hand, when OIRA tries to persuade agencies without any return letters, it is much more difficult for OIRA staff to win their arguments with agency staff, and it is very difficult for the public and stakeholders to see evidence that OIRA is powerful. The existing order authorizes return letters precisely because it was intended and expected, rightly in my view, that OIRA would need to use this power.

As OIRA administrator from 2001 to 2006, my power would have been much diminished without use of the return letter. When I was confirmed by the Senate as OIRA administrator in July 2001, my boss, OMB Director Mitch Daniels (the current Governor of Indiana), instructed me to get busy and start "returning" bad rules to agencies for reconsideration. Mr. Donald Arbuckle, a senior career OIRA manager, and my deputy at the time, showed me how to craft and issue an effective

return letter. I then returned about a dozen bad rules in my first six months. An interesting pattern resulted: The agencies began to work with OIRA staff to improve rules rather than bypass or refuse OIRA. Indeed, my staff at OIRA taught me the following trick: you simply begin a meeting with a regulatory agency by distributing a draft return letter that will be released publicly if the agency does not improve the analysis or the rule. The longer I stayed at OIRA, the more I found that the will of OIRA was obeyed and the necessity of returning rules diminished.

What concerns me about the Obama administration is that the OIRA's practice of returning rules to agencies appears to have virtually stopped, with one notable exception: OMB's recent decision, with the backing of President Obama, to return EPA's ozone rule for reconsideration. But a close reading of this public return letter reveals that OIRA's return is not really based on a deficiency in EPA's cost or benefit analysis. President Obama is simply exercising a political judgment about when this kind of costly rule should be issued. My point is that we are now almost three years into the Obama administration, yet OIRA has not returned a single rule to a federal agency due to poor cost-benefit analysis.

# CASE STUDY OF CONCERN: FEDERAL MILEAGE STANDARDS FOR MOTOR VEHICLES

To verify my concern that OIRA's quality-control job is not being accomplished, I decided to review a large regulatory program where Congress gave the executive branch substantial discretion and the Obama administration has responded by issuing highly expensive rules. I also picked an issue where I have expertise as an academic and where I was involved with similar rulemakings at OIRA from 2001-2006.

I chose for review the Corporate Average Fuel Economy (CAFÉ) standards for light trucks and heavy trucks, rulemakings that are now handled jointly by the U.S. Department of Transportation and the U.S. Environmental Protection Agency (EPA). The CAFÉ standards are sometimes called federal mileage standards because they compel each vehicle manufacturer to raise the average mileage of their cars and trucks. Since both the George W. Bush and Obama administrations favored large increases in the CAFÉ (i.e., mileage) standards for new vehicles, I will not focus on an area of major policy disagreement. What I will focus on is the recent quality of the regulatory impact analyses and how the RIAs (and the subtle details of the rules) have changed over the two administrations. As a result of my review, I have identified six issues where I am concerned that DOT/EPA regulators have not engaged in careful regulatory analysis.

## Issue #1

Under the Obama administration, DOT/EPA regulators are now enlarging the estimated benefits of CAFÉ standards by using a 3% discount rate instead of a 7% discount rate (when calculating the present value of annual fuel savings over a vehicle's life).

While OMB guidance (Circular A-4) authorizes agencies to present analytic results using discount rates of both 3% and 7%, DOT has historically emphasized the results based on 7% in CAFÉ rulemakings. In the automotive industry, it is well known that consumers have stronger preferences for money received today than for money that is received over the 15-year life of the vehicle. Those consumer preferences are apparent in the structure of sales incentives offered by dealers, in the nature of financing arrangements for new cars, and in the way consumers evaluate new technologies that are both more fuel-efficient and more expensive (e.g., a hybrid engine). The long-term average real interest rate on car loans is about 7%. (Today, average car loans apply interest rates of 5.5% to 6.5%, though these rates are expected to rise again as the economy recovers). To respect consumer preferences, DOT (with support from OMB) has historically emphasized results based on the 7% rate.

This seemingly arcane, technical matter has a powerful impact on the quantified benefits of a fuel-saving technology. For example, suppose a vehicle is driven 10,000 miles per year for 15 years and we compare the present value of fuel savings for a vehicle rated at 50 miles per gallon (MPG) to a vehicle rated at 25 MPG. We know that the 50 MPG vehicle will consume 200 fewer gallons of fuel each year than the 25 MPG vehicle (400 versus 200 gallons per year). At an average real fuel price of \$3.50 per gallon and assuming a 0% discount rate for 15 years, the 50 MPG vehicle will save consumers \$10,500 in fuel expenditures over the life of a vehicle (\$21,000 - \$10,500 = \$10,500).

However, the additional cost of fuel-saving technology (e.g., a hybrid engine) is typically embedded in the up-front cost of the vehicle. The consumer must either pay for the technology immediately upon purchase of the vehicle, or pay a somewhat larger amount over several years through a loan or other financing arrangement. Consumers have good reason for preferring money now, to an equivalent amount of money saved in the future. To capture this consumer preference, analysts typically apply a real discount rate to the stream of fuel savings in order to compute their "present value". If the discount rate is assumed to be 3%, the present value of fuel savings is \$6741. At a discount rate of 7%, the present value of fuel savings is \$3801. In other words, the present value of fuel savings over the life of a vehicle is enlarged by about 77% when a discount rate of 7% is replaced with a discount rate of 3%. The choice of discount rate for use in regulatory analysis has historically been controlled by analysts at OMB-OIRA but it is not clear who in the Obama administration is responsible for this analytic change.

### Issue #2

DOT/EPA regulators are not considering the possibility that world oil prices might fall as well as rise between now and 2025.

One of the crucial (but most difficult) inputs to forecast is the future world price of oil and the corresponding price of gasoline at the pump in the United States. During the Bush administration, the forecasted average price of gasoline at the pump in 2030 was about \$2.16 per gallon (in 2003\$). At OMB, we believed that these forecasts, made by the independent Energy Information Administration, were too low. We encouraged DOT to consider some higher price trajectories in regulatory analysis, which they did. But DOT regulators dutifully used the EIA forecasts in their main CAFÉ analyses. During the Obama administration, the forecast of future fuel prices has been upped by EIA to an average of \$3.68 per gallon (in 2008\$). Since savings of fuel are the primary economic benefit of DOT's tighter CAFÉ standards (or EPA's carbon standards), the large increase in the forecasted price of gasoline has caused a large increase in the estimated consumer benefit from more fuel-efficient cars.

Although policy makers are right to be concerned about rising oil prices and energy security, they also need to consider the possibility that world oil prices may not rise. In other words, it is not obvious that the future path of oil and fuel prices will be as pessimistic as EIA and the Obama administration are assuming. The recent developments in Libya and Iraq could contribute to a buttressing of longterm global oil supplies while the diminishing rates of growth in the economies of China and India may lessen the rate of growth in worldwide demand for oil. Meanwhile, U.S. and Canadian oil production are on the rise, and may rise sharply in the future due to technological innovations and the discovery of vast new reserves offshore and onshore. In light of the slowing growth rate in the global economy and other recent supply developments, a variety of private and international forecasters are already lowering their predictions for the path of future oil prices. In other words, the financial benefit of driving a 50 miles-per-gallon car may not prove to be as large – over the 15-year life of the vehicle – as the Obama administration projects it will be today. DOT/EPA regulators should acknowledge this possibility in regulatory analysis.

### Issue #3

Under the Obama administration, DOT/EPA regulators are now deflating the size of the "rebound effect" (the extra miles driven in fuel-efficient vehicles), an analytic change that has the effect of enhancing the net fuel savings from CAFÉ standards and reducing the congestion and pollution impacts of additional vehicle miles of travel.

Consumers are likely to increase their annual miles of vehicle travel when their fuel-inefficient vehicle is replaced by a more fuel-efficient vehicle. This "rebound effect" in travel behavior is predicted because improved fuel economy reduces the marginal cost of an additional mile of travel. Although the direction of this effect is clear, there is technical disagreement among experts about how large the rebound effects is likely to be.

Prior to the Obama administration, DOT regulators typically used a 20% rebound effect in the main regulatory analysis, and then conducted sensitivity analyses with rebound effects as large as 25% and as low as 5%. During the Obama administration, the assumed rebound effect has been cut in half by regulators, from 20% to 10%. By reducing the rebound effect, the NET fuel savings of higher mileage standards are enlarged while the adverse impacts of additional travel (e.g., increased congestion and pollution from tailpipes) are curtailed. (From an environmental perspective, more is assumed to be bad because it results in more greenhouse gas emissions, more smog and more soot in the air. On the other hand, there is also a mobility benefit from the additional travel). Since the rebound effect is expected to be larger when fuel prices are high than when fuel prices are low, and since the Obama administration is forecasting long-term rises in real gasoline prices, it is not clear why the rebound effect has been cut in half. For example, the key studies that support a rebound effect as low as 5-10% are based on fuel prices that are much lower than the average price of gasoline that the Obama administration is assuming. This is another example of an analytic issue that his historically been controlled by OMB but it is not clear who ordered this change in the Obama administration.

Issue #4

Under the Obama administration, DOT/EPA regulators have added a new category of "social" benefit from tighter mileage standards, a savings of \$21-\$45 for each ton of carbon dioxide that is not emitted into the atmosphere due to higher-mileage vehicles.

When a vehicle burns less gasoline, the result is fewer emissions of greenhouse gases (especially carbon dioxide) into the atmosphere. DOT/EPA regulators are engaged in a well-intended effort to capture the global benefits of reducing carbondioxide emissions from new vehicles in the United States. The specific figures are based on a federal interagency study, which is in turn based on peer-reviewed estimates of the marginal damages worldwide from additional greenhouse gas emissions. Although this new benefit category does not have a large impact on the overall benefit estimates reported by DOT/EPA, it again enlarges the overall benefits of stricter CAFÉ standards. While I am comfortable with the determination that greenhouse gases are linked to global climate change, I think the impact of climate change on the economy, public health, and the environment entails far more uncertainty than is captured by this two-fold range of damage estimates. To their credit, DOT/EPA are reporting sensitivity analyses with even larger ranges of damage estimates, though even those ranges seem too small to me.

Another uncertainty is the assumption that reducing greenhouse gas emissions from the U.S. transport sector will have a meaningful effect on global climate change. Since global climate change arises from global sources, including those in China and India, it is difficult to see how US action alone can produce a meaningful reduction in the pace of global climate change. In fact, if reductions in US oil consumption from tighter CAFÉ standards cause global oil prices to rise less rapidly, the resulting rise in oil consumption in the developing world will cause a perverse, offsetting rise in their greenhouse gas emissions (an effect called "leakage" by climate-policy specialists). In other words, the analysis prepared by DOT/EPA regulators appears to be making a naïve analytic assumption that the damages from global climate change can be addressed significantly by the United States, without unified global action.

Issue #5

Under the Obama administration, DOT/EPA regulators are planning large increases in vehicle mileage standards without careful consideration of engineering impacts on vehicle size, performance, and safety.

Conceptually, the "costs" of tighter mileage standards include the costs of fuelsaving technology plus the monetary value of any other losses in vehicle attributes (e.g., safety) that consumers value. But DOT/EPA regulators are focusing their cost estimates on the fuel-saving technologies, without giving adequate consideration to the other vehicle attributes.

Over the past 25 years, the improved fuel efficiency of motor vehicles has been offset significantly by the sustained improvement in the size, performance, and safety of motor vehicles. Larger vehicles with more seating capacity and leg/trunk space tend to consumer more gasoline due to their extra weight and aerodynamic factors. Engines that deliver more horsepower tend to consume more energy. Vehicle designs with more safety features tend to consume more fuel due to the added weight (e.g., a car with five airbag systems weighs more than a car with no airbag systems). A key analytic issue for DOT/EPA regulators is whether the quest for more energy savings will inadvertently hurt consumers by causing vehicle manufacturers to produce cars and trucls that do not satisfy customer preferences for vehicle size, performance and/or safety.

During the Bush administration, DOT/EPA regulators accepted the size, performance and safety characteristics embedded in the confidential production plans of vehicle manufacturers, since these production plans were assumed to be responsive to projected consumer preferences. As a result, it was reasonable for DOT regulators to assume that the cost of tighter mileage standards was simply the cost of the fuel-saving technologies necessary to meet the standards.

Under the Obama administration, however, the regulatory mandates are being set for model years (as late as 2025) that are beyond the production planning horizon of major vehicle manufacturers. It is therefore critical that a target such as 50 MPG in 2025 be accompanied by an analysis of consumer preferences for vehicle size, performance, and safety. As far as I can tell, the DOT/EPA regulators have not engaged in any such analysis and thus there is a risk that further improvements in vehicle size, performance and safety will be foregone by stringent federal mileage standards.

Issue #6

Under the Obama administration, special compliance credits will be awarded by EPA for electric-vehicle technology, even though such credits have a questionable cost-benefit justification.

The Obama administration has already invested billions of taxpayer dollars (through production subsidies and loans awarded by the U.S. Department of Energy) to enhance the competitive position of the electric vehicle industry. For private investors in electric vehicles, government support is needed because automotive applications of lithium-ion battery technology are not yet economically competitive. According to the National Research Council, the incremental production cost of a battery-operated car (like the Nissan Leaf) is \$10,000-\$20,000 more than a gasoline-powered vehicle of similar size and performance. The fuel savings from use of low-cost electricity are not nearly large enough to pay the cost premium for large automotive battery packs.

The Obama administration recently announced that regulatory policy will also be used to favor electric cars (as well as fuel cells and other battery-related technologies), even though no benefit-cost analysis was published to support this policy change. While DOT is precluded by law from offering lucrative compliance credits for electric vehicles, the Obama administration is using EPA's more discretionary authority under the Clean Air Act to achieve the same result under its greenhouse-gas control program for motor vehicles. In effect, auto makers will be permitted to count an electric car as two vehicles instead of one when a manufacturer's compliance statistic for emissions is computed by regulators. This "incentive multiplier" declines gradually from 2.0 in model year 2017 to 1.5 in model year 2021. But the regulatory preference for electric cars does not end with the incentive multiplier. Fearing that government subsidies and incentive multipliers may not be sufficiently lucrative, the Obama administration also announced that electric vehicles will be assumed to cause zero pollution for model years 2017-2021, even though it is well known that use of electric vehicles cause air pollution indirectly at the powerplant (where electricity is produced). Special considerations are also to be offered for fuel cells, plug-in hybrids and conventional hybrids used for heavier trucks. The zero-pollution compliance figure will encourage vehicle manufacturers to offer electric cars instead of conventional hybrid engines, advanced diesels, or natural gas vehicles.

The case for "advanced vehicle" compliance incentives is weak because California regulators are already engaged in this activity. Since the Obama administration has been unwilling to restrain the ambitions of California regulators, vehicle

manufacturers will be compelled to comply with California's "Zero Emission Vehicle" (ZEV) program for new vehicles sold in California (and other states that together comprise more than 25% of new vehicle sales in the U.S.). If one is to believe that federal incentives for advanced vehicles are necessary (e.g., to overcome barriers to introduction of new technologies), then the EPA compliance incentives should have used as a baseline the impacts of the California ZEV program and the DOE grants and loan guarantees. What little analysis EPA has performed seems to suggest that greenhouse gas emissions will actually be enlarged by the compliance incentives for advanced vehicles (since the special credits allow vehicle manufacturers to offset the advanced vehicle sales by selling more vehicles with higher-than-average greenhouse gas emissions).

Interestingly, the European Commission considered and rejected similar compliance credits for electric-vehicle technology two years ago because the Commission determined that special credits would not reduce greenhouse gas emissions and they might actually exacerbate emissions. The European Commission was also concerned that special considerations violate the principle of "technology neutrality". In other words, regulatory policy that favors battery-operated vehicles may have the inadvertent effect of hurting investments in other promising technologies such as natural gas vehicles, advanced diesel-powered vehicles, cellulosic ethanol, and other innovative ideas that DOT/EPA regulators cannot foresee today. In other words, the Obama administration appears to be entrusting less faith in competitive markets to choose the best technologies than is the European Commission in Brussels.

Summary of Case Study

Based on the six issues that I have discussed in the case study, I am quite concerned that DOT/EPA regulators are not engaged in thoughtful regulatory analysis prior to making their regulatory determinations about the future of federal mileage and greenhouse gas standards. While I am not privy to the internal deliberations of the Obama administration, I find it hard to believe that these issues would have been handled the way they were if OMB-OIRA had been significantly involved in the deliberations. I encourage the Obama administration to harness the talents and expertise of OIRA in a concerted effort to improve the quality of regulatory analysis at federal agencies. Congress should make it very clear to the OMB Director and the OIRA administrator that Congress cares about the quality of cost-benefit analysis, that Congress expects poorly analyzed rules to be returned publicly to agencies for reconsideration, and that Congress is willing – through authorization or appropriations language – to give OIRA the tools that are necessary to do its job effectively.

#### Biography: John D. Graham, Dean, Indiana University School of Public and Environmental Affairs

John D. Graham is Dean of the Indiana University School of Public and Environmental Affairs (Bloomington and Indianapolis), one of the largest public policy schools in the United States. He is the author of seven books and two hundred articles on health, safety and environmental issues.

Dr. Graham founded and led the Harvard Center for Risk Analysis from 1990 to 2001. During that time, he was elected President of the Society for Risk Analysis, an international membership organization of 2,400 scientists and engineers. Dr. Graham reached out to risk analysts in Europe, China, Japan and Australia as he helped organize the first World Congress on Risk Analysis (Brussels, 2000). From 2001-2006 Dr. Graham served as the Senate-confirmed Administrator of the Office of Information and Regulatory Affairs, White House Office of Management and Budget. He chaired an interagency task force on automotive industry regulation. From March 2006 to July 2008 Dr. Graham was Dean of the Frederick Pardee RAND Graduate School at the RAND Corporation in Santa Monica, California.

Committee on Oversight and Government Reform Witness Disclosure Requirement – "Truth in Testimony" Required by House Rule XI, Clause 2(g)(5)

#### Name:

1. Please list any federal grants or contracts (including subgrants or subcontracts) you have received since October 1, 2008. Include the source and amount of each grant or contract.

None.

2. Please list any entity you are testifying on behalf of and briefly describe your relationship with these entities.

None.

3. Please list any federal grants or contracts (including subgrants or subcontracts) received since October 1, 2008, by the entity(ies) you listed above. Include the source and amount of each grant or contract.

I certify that the above information is true and correct
Signature:
John D. Shu
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9/13/2011 Date: