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GOODS MOVEMENT ON OUR NATION'S HIGHWAYS

HEARING

BEFORE THE

COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS UNITED STATES SENATE

ONE HUNDRED TENTH CONGRESS

SECOND SESSION

MAY 8, 2008

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ONE HUNDRED TENTH CONGRESS
SECOND SESSION

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C O N T E N T S

GOODS MOVEMENT ON OUR NATION'S HIGHWAYS

THURSDAY MAY 8, 2008

U.S. SENATE,
COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS,
Washington, DC.

The full committee met, pursuant to notice, at 10 a.m. in room 406, Dirksen Senate Building, Hon. Barbara Boxer (chairman of the full committee) presiding.

Present: Senators Boxer, Inhofe, and Barrasso.

OPENING STATEMENT OF HON. BARBARA BOXER, U.S. SENATOR FROM THE STATE OF CALIFORNIA

Senator BOXER. Good morning, everybody. I call the hearing to order. We welcome you here.

We are beginning to look at the reauthorization of the next highway bill, and this is an important time for us to just hear from the experts, from the folks who have ideas, so we are looking forward to hearing from our panel.

I am going to make an opening statement. If my Ranking Member arrives, or any other colleagues, they will make an opening statement, and then we will call on each of you. We will give you 7 minutes each, and then if you need more time we will extend that a little bit, and then we will go to questions.

The tragic collapse of a Minnesota bridge in August of last year reminded us we need to invest more in the maintenance and preservation of our current transportation system. However, increased resources to better maintain the highways and bridges are not our only need; we face major challenges due to increased congestion and goods movement.

The interState system was designed in the 1950's, when the number of vehicle miles traveled was certainly much less than it is today. Miles traveled have increased from 600 billion in 1955 to 3 trillion in 2006. Americans have been on the move. It is estimated we could reach 7 trillion miles traveled by 2055.

Freight handled by trucks is projected to double by 2035, and the percentage of freight traffic handled by trucks will also increase. Traffic through West Coast ports alone could triple over the same period. We are already facing major issues in our ports with the quality of the air or lack thereof, so, obviously, we have a lot of work to do in this Committee.

In 2005, the Texas Transportation Institute found that congestion resulted in 2.9 billion gallons of wasted fuel—imagine, wasted fuel at the prices that we are paying now—4.2 billion hours of

extra time, and $78 billion in delay and fuel costs. The value of delay and fuel costs per traveler was $710 in 2005, up from $260 in 1982.

Similarly, the Department of Transportation has estimated that the cost to our economy from traffic congestion is as high as $200 billion per year.

As our economy grows, congestion will continue to worsen unless we make major changes to improve goods movement. And nowhere is the need greater than in my State, particularly Southern California.

Forty-five percent of all containerized cargo destined for the continental U.S. passes through California's ports. We know trade is vital, and we want to make sure we continue trade, but it does have some adverse impacts: it clogs our roads, fouls our air, pollutes our water, it creates safety issues. We have to figure out how to mitigate those impacts so we can continue to grow.

We also know the movement of goods has an impact on air quality and global warming. Freight transportation is still largely driven by fossil fuel combustion, and with that combustion comes emission of greenhouse gases.

As a percentage of all mobile source emissions, heavy-duty truck, rail, and water transport together account for more than 25 percent of CO2 emissions, approximately 50 percent of NOx emissions, and 40 percent of particulate matter emissions in the U.S.

According to the California Air Resources Board, 75 percent of diesel particulate emissions in California are related to goods movement. So we can see all these issues are related. It is all a circle. And we know that 2400 premature deaths occur due to diesel emissions, and we see this only getting worse if we don't act. By reducing congestion, we can improve air quality and public health.

And as I look at the next reauthorization, to me, goods movement and air quality, those are going to be very key principles of our bill.

The current highway and transit bill, SAFETEA-LU, will expire on September 30th, 2009. Goods movement and its impact will be, again, at the top of my list of issues, and today's hearing is a first step.

I appreciate the witnesses for being here. I look forward to your testimony and to working with you to ensure that the next bill makes real improvements to goods movement that will reduce congestion, improve air quality, and help grow our economy.

Senator BOXER. I will keep the record open for 5 days so other colleagues can put their statements in the record, but why don't we start off with Michael Gallis, Principal, Michael Gallis & Associates. Welcome, sir.

STATEMENT OF MICHAEL GALLIS, PRINCIPAL, MICHAEL GALLIS & ASSOCIATES

Mr. GALLIS. Thank you, Senator Boxer. It should be no surprise to anyone to say that we are living in the midst of the greatest change in human history. But what is surprising is how fast and how broad these changes are.

While we are here to discuss roads, we must understand, as the Senator has pointed out, that they are components of a larger

transportation network that is the foundation of the U.S. economy. The real question on the table is what kind of system the U.S. needs to remain highly competitive within this global economy. And a second question starts to arise out of that which says why would the Nation with the most developed infrastructure in the world face not a problem, but what is called by many a crisis, that threatens our competitiveness within a world marketplace?

It is because of the fact of the dramatic changes that took place after the collapse of the Soviet Union, leading to global market integration and the integration of the global network. We must remember that the U.S. system was created in the 20th century to serve the economy and trade patterns of a free world, not the 21st century to match the trade patterns and the economy of the 21st century.

To put the changes that we are living in to three basic categories, I would like to point out these three. So here we have an image of the free world, U.S. in the center of that, communism on two sides. Here is the integrated global network, the first one. What is driving the goods through our ports in Southern California, New York, even into Chicago, putting huge new pressures is this: more nations connected into a world grid, pushing freight through this as production moves around the world.

The second issue, a new global economic geography. It used to be the U.S. was the largest nation within a free world configuration, largely a domestic economy, only 10 percent dependent on foreign trade. Today, over 25 percent. We were, had the advantage of economies of scale and a national infrastructure. But today China, of course, much larger economies of scale and on a continental basis, does not have to struggle with cross-national boundary issues in formulating strategies.

The third one, a new economy. We don't really appreciate what information technology has done in replacing mass standardization. Today we have mass customization and the global redistribution of economic activity by which more pieces, parts, move more rapidly in more coordinated movements to more places than ever before, leading to a flood of goods on the freeway.

This change accelerated after 2050. The world economy grew an amazing 52 percent between 2000 and 2006, from $31.9 trillion to $48.5 trillion—World Bank numbers—which gives you a sense of where is all this growth coming from in such a short time.

We like to put the four problems facing the transportation into what I call the four other Cs. The trucker associations have created the three Cs. They got there first, so mine are the four other Cs.

The first C I will talk about is condition. We know a lot about that; the Senator spoke about that. I can't really add much to that. We know we have problems and they are huge.

The second one was capacity. And a lot has been discussed about that capacity issue. But I want to talk about configuration. I want you to look to this light map for a minute. Everybody has seen this; it is on posters, walls. We take it for granted. But look at it again. Where is the Canadian border? Look at it again? I thought for sure the development between Mexico and the U.S. would show up, but where is the Mexican border? And where is any State border?

What you see is dots of light. Those are called economic regions. And you can see Denver, you can see Los Angeles, San Francisco, New York, Chicago. And then, if you look closely, you will see corridors. That is the network of transportation that is covering the United States. That is what we are talking about investing in. And where should we invest and how should we invest in that network?

If the first C is condition, second C is capacity, the third C is configuration. And the way we do it today is this is a congestion map. I call it chasing the red. You say put some money on this red, put it on that red, and we fight over which red to put the money on. But, in fact, this is what is happening on a continental basis. There is a huge reconfiguration, largely driven by the private sector, that is putting huge pressure on key points like Southern California, like Chicago, like Memphis, Detroit, New York. Huge pressure as the reorganization of the rail network, the seaborne trade, airfreight moves across the Country, and this is the projections and corridors.

This issue, the third C, configuration, raises the fourth C, constraints. While this reconfiguration is largely driven by the private sector, there has been no public sector response. There is no policy framework to understand these changes. It is not simply a funding problem; it is a national policy question of how is the public sector—from Federal, State, and local—going to respond to the private sector. Huge gap.

So what is the way to the future? I believe there are three things that we must address as we think of reauthorization and is it just a financial question. First, what we have done is we fund projects. But we don't have a strategy or framework to understand how any individual project fits into a broader national picture of what it will achieve on a national basis. How do we understand the tradeoff?

Second, transportation planning has been largely reactive. That is this: Where is the congestion? Put the money there. It hasn't been proactive, saying, What is happening to the Nation, the pattern of global trade? What do we need to achieve as a Nation to retain our competitiveness? So, as a result, we react to situations, we don't proactively say where do we want to go.

And the last one, strategic partnerships. We talk about the private sector reorganizing the grid, moving in new ways, the Federal side, the State side. How are we going to create the partnerships to create policy and to create the financing because of the vast amounts of money?

And when I am in New York, I love to use this slide because I like to say to people are you mission driven? And they say, come on, Mike, this is New York; we are big boys, we know what we are going. But, in fact, this is the competition in the world today.

So if we are big boys and know what we are doing, and these people are mission driven, we are competing in a new global economy.

Thank you very much.

[The prepared statement of Mr. Gallis follows:]

Senate Committee on Environment and Public Works
"Goods Movement on our Nation's Highways"

Challenge of the 21st Century: The US Transportation System in the Global Network
Michael Gallis
Michael Gallis & Associates
May 8, 2008

1. We are living in the midst of the greatest change in human history.

That the world is changing is no surprise, what is surprising is the breadth and depth of the changes, and the reach of the changes' impacts. For the same reasons that historians refer to the early 19th century as the "Industrial Revolution," our firm calls the current period the "Global Revolution."

This period was initiated by the collapse of the Soviet Union in 1991, a break point that initiated a period of global integration that is fundamentally changing how we live, move, interact, and conduct business. We group the changes into three categories: 1) The integration of transportation, business and information networks, 2) the emergence of a new global economic geography, and 3) a new economy, each of which I will discuss below. These three factors are having enormous impact on our economy, on our transportation systems and on the environment.

2. The myriad set of changes can be put into three basic categories.

2.1. Integration of the Global Network

Our firm finds it most useful to think of these changes in the context of what we call "The Global Network." The system consists of all the means—roads, shipping lanes, air routes, computer systems—we use to move people, goods and information around the world.

The Global Network is much more than an interesting way to think about the world, it is a rapidly growing, increasingly integrated system that has far-reaching impacts: The Global Network is reshaping the global marketplace, shifting the focus from North America to Eurasia. The Global Network has allowed more integration, allowing businesses to seek the lowest costs and most productive relationships on a planetary playing field. This ever more fluid business environment is pushing economies into overdrive. The Global Network's exponential growth creates greater access to resources and allows more of the world's resources to be moved to more places. Again, this creates wealth, but it also is leading to ever-increasing strains upon the natural environment. This changed reality has important implications for America's transportation infrastructure.

Prior to 1991, the Iron Curtain truncated this Global Network into two parts: the Free World and the Communist Bloc. The Cold War separated much of Eurasia from

global politics and economics. This Cold War geography forced the economies of Europe and Asia to look away from the Soviet Union and toward the United States, making it the central hub. Yet today, the geopolitics no longer puts the spotlight upon North America, but has shifted much of the attention and activity to Eurasia.

It was initially thought that the post-Cold War integration of networks would most profoundly affect the former communist countries, but it has also deeply affected the US. Within the integrated network of the 21st century, the US is no longer the central hub. Rather, America has become a subcomponent in a vast global system. With the political barriers to Eurasian trade gone, the transportation costs of reaching US become more significant. The US can only be reached across air and sea. That costs money. In essence, every good and service produced in the US carries a transportation surcharge. In contrast, Eurasia enjoys a continuous land network of roads and rails that now connect airports and seaports to nations, production centers and consumers.

America's transportation system was planned and developed to reflect the central location we enjoyed within the economic patterns of the 20th century. This system is wholly inadequate to meet the new challenges of the 21st century. When we were the global hub, agricultural and manufacturing products moved outbound to the coasts where they were shipped around the world. Today, the flow is reversed: America now receives more goods than it sends out. Containers flood our ports, straining them to the limit. Our rails and roads cannot cope with the rapidly increasing flows of people and goods through the Global Network. Our system is neither set up to handle this volume nor to efficiently channel these new flow directions. For instance, in the 19th and 20th centuries, Chicago built its rail centers to send goods out. In that historical reality, there was no need to build connections between the city's east rail yards and west rail yards. Today, with massive amounts of goods flowing in, those connections are crucial. It will cost billions to create them. The story is repeated again and again across the country.

2.2. New Global Economic geography

Prior to 1991, the US was the largest Free World Economy. Flanked by the Communist Bloc to the east, Europe looked west across the Atlantic to the US. Blocked by the Soviet Union to the west, Japan and Southeast Asia looked east across the Pacific to the US. Thus, all trade routes converged on the US.

As the 21st century opened, a new global economic geography took form. This new geography was based on trading blocs and economic regions, rather than competing political and ideologies. When nations the size of China and India, with the advantage of economies of scale, began to compete in the global marketplace, other nations responded by forming larger trading units, like the European Union, NAFTA, and Russian Federation to compete effectively. As Eurasia's economies continue to grow, the global economic center continues to shift, Eurasia now accounts for approximately 70 percent of Gross World Product (GWP). China enjoys the greatest economies of scale on the planet, and has been able to develop trading-bloc-scale transportation systems without worrying about borders. As the economic structure

changes, the world's largest container ships—those more than 12,000 TEUs in size—have been redeployed from trans-Pacific, Asia-North America routes to routes between Europe and Asia.

The US share of GWP was over 30 percent in 2000, and has been declining. We must face this increasingly competitive world market. Within this new geography, the US has just 4.6 percent of the world's population compared to 86 percent for Eurasia.

2.3. A New Economy

When talk turns to the "new economy," the discussion most often focuses on technology, how technology changes the patterns and characteristics of economic activity. Yet this overlooks the integration of the marketplace.

The integration of the global marketplace has led both to the knowledge economy and to massive changes in the structure of business and the redistribution of economic activity across the world. Insourcing and outsourcing are misleading terms, emphasizing national boundaries that have increasingly less meaning in business, in society, in transportation. Rather, what is happening is that business now links with the Global Network and serves a global marketplace: Business moves various units to places in the world that will produce the highest operational efficiencies, whether it be because of labor rates, resource availability, skill sets, transportation functions or customer access. Repositioning America within these new patterns is not about insourcing or outsourcing, it's about seeing that there's a structure to these flows. Understanding this structure, the Global Network, will allow us to determine how to handle these flows.

Simultaneously, the effects of technology and the growth of the Network have led to changes in economic processes that make an efficient transportation system even more vital for competing the 21st century marketplace: For instance, mass customization has replaced mass standardization, resulting in more parts and pieces, moving to more places, more rapidly and on tighter schedules than ever before. In manufacturing, concepts like "OTD"—"order to deliver"— seek to collapse the time between order of a custom product and the time it takes to deliver that product. This "just in time delivery" has increased the number of trucks on the highways, trains on the rails, as well as aircraft and cargo ships. The increasing shift to a service economy has placed more commuters on the same roads, rails and airports as the freight.

All these changes place huge demands on the transportation network. That means the system has to operate more efficiently.

3. Accelerating Change After 2000

The changes that began in 1991 rapidly accelerated after 2000. This has changed the demands on the transportation system. In 1970, the US economy was only 10 percent dependent upon foreign trade. By 2000, as the US economy became more integrated into the world's economy, that number had increased to more than 25 percent, resulting in significant new demands on the nation's transportation system.

During the 1990s, the world economy readjusted to the new post-Cold War playing field. Then after 2000, the world economy began to accelerate. Since then, there has been an incredible acceleration of economic activity: Global World Product was 31.9 trillion in 2000, then grew to 48.5 trillion in 2006: a 52 percent increase in just 6 years. This has not only strained societies, it has greatly increased the rate of environmental change, since the production of wealth consumes resources and energy.

Yet our transportation system was not set up for this rate of growth. It's fragmented both between modes and within modes. It's set up for a different flow pattern. The new transportation volumes are overwhelming the system we created in the 20th century.

We must find the way out. Unfortunately, the depth and scale of the problem means that there is no quick fix.

4. The Four "Other" C's

To help clarify the current crisis in our transportation system I have divided the main issues in four categories all starting with the letter C. As the ATA has also created a system of "Cs.", I refer to my four as the "Other Four Cs."

4.1. **C**-ondition - The existing system is deteriorating and needs maintenance. Just fixing the broken parts consumes the largest part of the transportation budget.

4.2. **C**-apacity – The increasing volumes of passengers and freight are flooding the system and we are not keeping up with the growth in demand.

4.3. **C**-onfiguration – The system today is highly fragmented, sliced and diced by public and private jurisdictions and interests. Divided both vertically and horizontally, our transportation system is not an integrated system. This system was set up for a Cold War world: moving goods 1) internally -domestically - and 2) from the Midwest outbound to overseas Free World Markets. Today, this pattern has entirely reversed; our transportation system now moves goods from the ports, inland to reach consumers. Furthermore, this system was built with little thought to the patterns of the environment and that is resulting in massive ecological impacts that are largely unrecognized, and will eventually be very costly.

4.4. **C**-onstraints – The institutional structures we created in the 20th century are incapable of responding to the demands of the 21st century. Our bureaucracies fail to reflect the integrated reality of the Global Network. Instead, they remain separated in silos, one for each transportation mode. They rely upon outdated performance metrics.

5. What is the Path to the Future?

There is a way out, but it will require a significant shift and re-definition of the way we do things. We need a new conceptual framework – a comprehensive and integrated framework that connects the pieces and parts into an understandable whole. We need a new methodology for integrated multi-modal planning to guide us towards a more seamless and efficient system. To create this:

5.1. *We must move from projects to strategy.*

As a nation are completing a myriad of individual projects, but we don't have a strategy. We don't have a plan that addresses our nation's economic competitiveness. We don't have a plan that will help to minimize the environmental impact of our transportation system. We have no idea if the projects we are undertaking are moving us toward an efficient future, we have no framework to judge how they operate within the integrations of the Global Network. How do we move from the system we have to the system we need? How do the pieces fit together? How does the US fit into the Global Network. We need to answer these questions.

5.2. We must move from reactive to proactive

Transportation planning is reactive. It is primarily focused on congestion and safety. We must move beyond simply reacting to these problems, and become proactive and create a transportation system that is efficient, while supporting our economic competitiveness and minimizing environmental impact.

Unfortunately, this kind of transportation planning does not happen. Our planning, such as it is, simply accepts the system's configuration, without asking whether it is adequate. We don't ask: What changes do we need in this system? We just look for problems. We use an internalized set of performance metrics to judge success. What we have are engineering studies of modal pieces, what we need is a new framework for understanding and modeling the multi-modal –road, rail, transit, air and sea – system as an integrated whole.

We need to understand how the system impacts the growth of cities, the health of the environment and the national and global economy.

5.3. We need to form new partnerships.

No one entity can do it alone. We must have a mechanism to secure the kind of cooperation among the vast multitude of public and private entities that own and operate the system to ensure that the system is planned and works efficiently. It will require a new kind of strategic partnership among the major participants to get the job done. We need to recognize that only the USDOT has the capacity to lead the effort. This group must address the funding mechanisms. The nation needs a new way to make transportation a budgetary priority and work toward a better structure for public-private financing partnerships.

Conclusion: The crisis in transportation is becoming an increasing threat to the nation's economy, to our competitiveness and to the environment. It adds a cost to every good and service produced or consumed in America, as former Michigan Governor John Engler has so correctly pointed out in his new role as chairman of the manufacturer's council. It is in conflict with the patterns of the environment and needs to be better coordinated with those patterns.

We need to act now!

RESPONSES BY MICHAEL GALLIS TO ADDITIONAL QUESTIONS FROM SENATOR CARPER

Question 1. Government usually divides transportation by mode. In the Senate, we have highways in this committee, rail and air in the Commerce Committee and transit at Banking. At the U.S. Department of Transportation, each agency focuses on the movement ofmachines—trucks, trains, planes, cars and ships.

But I have found that people rarely look at travel this way. They just want to get from point A to point B, quickly, conveniently and affordably. Most of the time, they use multiple modes for one trip. Freight movement is the same. Businesses and consumers just want to receive their goods quickly, safely and affordably.

How do we break through this government stove-piping to ensure that we institute policies that facilitate smooth flow of goods (and people)?"

Response. Ossification of bureaucratic structures has been one of the hallmarks of decline of empires since Roman times. Unless we can address the reformation of our current committee structure, we face serious consequences.

The problem is that our current transportation system was created during the past two centuries in response to, first, the needs for seaports and canals, mail and military roads in the early Republic, and then evolving piecemeal as new technologies introduced new transportation modes, starting with railroads, then automobiles and trucks (which required roads and highways) and airplanes (which required airports). The Federal structure that supports transportation also evolved piecemeal over the same period.

As a result, at the opening of the 21st century, while we need comprehensive and integrated approaches, what we actually have is a structure that is incapable of producing the needed response. Fragmented, mode specific improvements, as you so clearly point out, are not the real issue, rather moving passengers and freight on schedule and cost effectively from point A to B is the issue. This can only be achieved through integrated responses that involve coordinating planning and investments between multiple modes and across multiple jurisdictions.

Transportation planning should function on "network performance"—defined as the way in which all modes function, together with communications infrastructure, to effectively move people and goods. The regional and global movements of people and goods supporting the social and economic activities in our nation involve every mode including communications (IT). Recently, one of the large automakers told me, in response to the question of how we should redefine the infrastructure needs for the Detroit region to more effectively compete with foreign auto makers, "Transportation is no longer a separate function outside the manufacturing process. The movement of materials, parts and finished vehicles has become an integrated part of the entire manufacturing process." These same sentiments have been restated to me from representatives from business service companies in the Chicago region to theme park owners in the Orlando region to developers in the Portland region. In every project we have been involved in across the US, it is on-time, cost effective movements, not the mode, that is the key issue.

Unfortunately, the bureaucratic fragmentation and silo mentality that reinforces the mode specific approach is defeating our ability to address the freight movement problem. This problem can only be solved through creating an integrated multimodal network that can move freight seamlessly from US locations to global destinations. While the bureaucratic structure we created was effective in moving passengers, it is not effective in producing the kind of efficient and more cost effective infrastructure this nation needs to remain competitive in the 21 11 Century global economy.

Question 2. "Drivers are often frustrated by the presence of large amounts of truck traffic and truck divers are severely impacted by heavy urban traffic in terms of lost time and lost fuel sitting in traffic.

How does the lack of transportation options for people movement, such as rail and transit, impact goods movement? "

Response. Two macro scale forces have totally changed the amount of truck traffic on the nation's roads. The first is the emergence of a global economy. The second is the rapid acceleration of technology and its application to all phases of economic activity from manufacturing to accounting that has increased the importance of on-time, scheduled delivery of goods and services. These two forces have combined to vastly accelerate the total amount of people and goods moving through the global and national transportation systems, resulting in a dramatic rise of truck traffic and congestion on the nation's roads.

Prior to 1991, the movement of goods (today referred to as logistics) was a small component of total demand on the nation's transportation system (airports, seaports, roads and rails) and especially its highways. Today we essentially have two separate

components within our transportation system, one for the movement of people and the other for the movement of goods. These two systems are using the same highways, rails, airports and seaports and are in serious conflict as they have two separate functions, operate on two different kinds of schedules, and have two different kinds of impacts on the lives of our citizens.

More choice is one of the answers, however the real challenge is how the two overlapping and parallel systems of freight and passengers should be configured to function. How should we differentiate the short-term actions from the long-term and make sure that we do not take actions in the short-term that preclude the actions that will be necessary in the long-term to develop the kind of system we will need. Traditionally, we did not have to address the freight issue, today we must. This issue further reinforces the need for reform that you addressed in your first question, as it is difficult if not impossible for a committee that addresses only two of the modes to solve the problem that extends across all modes within the system.

Question 3. "We are dealing with limited funding for everything, certainly including transportation. Yet we have large maintenance and new capacity needs.

In terms of competitiveness, how important is funding the maintenance of our current road system and smoother intermodal connections? How much funding should go to maintenance as opposed to new capacity? Should new capacity be evaluated for how it will help or hurt the movement of goods?"

Response. The three interrelated categories of issues we face in developing the kind of system we will need in the 21st century are condition, capacity and configuration. Condition is vital. I four current system begins to deteriorate, we are in serious trouble, as we will lose the confidence of our own citizens as well as our productive capacity. If we do not expand capacity we will choke the system, which will lead to growing anger, frustration and increasing costs as productivity decreases due to lost time in the movement of people and goods.

Configuration has not been effectively addressed and not sufficiently discussed. The system we now have was created on a mode specific basis over the past two hundred years with little or no concern for inter-modal efficiency, nor the effects of advanced communications infrastructure. As a result, what we have today is a highly fragmented system that was designed primarily for the movement of people, not freight. Further, the system is one that was developed to serve the 20th Century "Free World" economy that America dominated, not the highly competitive global economy, covering a much larger geography and involving much larger flows of international commodities than ever before in history.

We need funding for each of the three categories. However, if we are creative, we should be able to get higher performance from the future system if we take the time to plan an integrated, multimodal system and demand higher system performance from the entire network, rather than continue to fund and evaluate performance of our transportation system on a mode specific basis. Currently, we only have mode specific performance methodologies and would need to create the methodologies and metrics to measure system wide performance. This would be a key component of a long-term strategy.

RESPONSES BY MICHAEL GALLIS TO ADDITIONAL QUESTIONS FROM SENATOR INHOFE

Question 1. "In your testimony you criticize our country's response to infrastructure needs as being too segmented, and recommend a more integrated approach. Acknowledging the Federal Government cannot solve this problem alone, what recommendations would you have in the near term for a strategic approach, for policymakers about to reauthorize the Highway Bill, for meeting the requirements future freight growth will have on the system?"

Response. There is a need to begin to change direction to create the kind of infrastructure this nation needs to remain competitive in the global economy. I believe we must develop a long-term and short-term strategy. If not, we will go into the future with series of short-term measures that will magnify, rather than solve, our current problems. The first step in the long-term strategy is to define the kind of system the U.S. will need in the 21st century. The EU has already done it, China has done it, India has done it, and even the Russian Federation has done it. We are the only major nation and continental trading bloc that has not done it! I believe that we need to include funding to create the national framework (rather than national plan) needed to define the kind of system we will need in new global economy. A network of gateways, corridors and inland hubs that are embedded in metropolitan areas forms the freight system. States should develop compatible regional and local State system plans utilizing policies adopted by the national commission on freight strategy. This will require the development of innovative funding methods,

including new national transportation bonds, and identification of new revenue sources that benefit from transportation investments. As part of this we should also define the critical issues that impact how our nation's system functions within the context of the three-nation, North American trading bloc. Let's get the dialog started.

As to system capital funding, I believe we will need to include much stronger language defining how states should begin to address freight (logistics) and create a separate and flexible pool of freight system funding allocated on critical needs basis, defined by a set of national needs criteria. While the kind of massive new funding for the actual projects would appear to be impossible, a first step would be to create a pool of funds for State and local planning that uses a national needs criteria to coordinate those levels of planning with national strategies for gateways, hubs and corridors.

A simple example of the current problem is that we develop separate policies and funding for urban transit and roads. We do not ask how can they work together to move people and goods through a metropolitan area. The current success of the first segment of the Charlotte metro system, which initially met no Federal transit guide lines, is due to the fact it was planned to weave together with the highway system and to create new commercial and residential development activity by creating corridors of high accessibility. Why are these concepts not in the transportation literature? Because transportation planning is reactive not proactive, and therefore constantly reinforces yesterdays patterns rather than developing the system to support future needs.

Question 2. "In your testimony you project large growth in freight movement on a very specific network of us interstates. What analysis have you done to identify the locations of the Nation IS most heavily used interstates for goods movement and how would you address new and needed corridors?"

Response. Our analysis is based on three areas of research that is focused on what we need in the future as opposed to traditional transportation planning that is reactive and focused on solving the problems of the past. First, and most important, are the direct interviews with major private sector transportation (trucking, rail and sea) companies on their current patterns and future plans for freight movements like I have conducted in places like Houston, Detroit, Chicago, Florida, and the West Coast. Second are interviews and primarily literature search on new infrastructure developments across North American and the other major trading blocs. The third are interviews and literature research on how technology is changing business processes, from manufacturing to business services, and what the implications are for our transportation system. These three areas have provided us with the information to understand not only where these critical corridors are emerging, but why they are emerging.

In response to the question of who to address the new needs, I could, and am willing to offer a lengthy answer, but I feel it would be important for the American people to hear and understand the real concerns of business that I have heard in projects across the country and would be basis for what I would propose.

I would suggest a series of hearings involving a targeted set of businesses from a variety of economic sectors to listen to their concerns about competing in a global economy and what they need from the transportation system. Second I suggest the Senate join with the House to commission a major congressional study to define what kind of system (everything on the table) we would need and what it would look like (include best case examples of where we are today) and what the alternative funding mechanisms would be needed to achieve such a system.

Question 3. You spoke of how the current transportation network was not designed/configured for the 21st century trade patterns. Could the current system be modified to add capacity and increase efficiency of the distribution of good from the ports (and freight intensive airports) or will we have to think more comprehensively and build numerous new interstates/corridors?"

Response. Yes, we will have to think and act more comprehensively. At the national scale, our system was developed to serve the Free World market. What his means is that the system was primarily a 'Midwest outbound to the two coasts' system in configuration and operations, moving U.S. agricultural and industrial products from the heartland to foreign destinations. This was reflected in the pricing structure that defined the headhaul, the higher value direction, as Midwest to the coast and the lower value, backhaul, from coast to inland.

After 1995 this entire system began to change as a massive redistribution of global economic activity was driven by the emergence of gigantic global corporations that formed to serve a global marketplace resulted a redeployment of US manufacturing to overseas locations (who would have believed that corporations as large as

Exxon and Mobile would have to merge?). With the new, inbound flow of goods to our air and, primarily, sea ports from a vastly expanded global marketplace, far beyond the geographic extent of the Free World, our transportation system was flooded, as it was never set up for this kind and direction of flow. A prime example is Chicago, where the rail yards ringed the city but never connected through it. As a manufacturing center sending goods out, this was not a problem, but as Chicago morphed into a distribution center the seamless rail connection through Chicago became a vital issue. This is not a question of capacity but configuration.

Unfortunately as Chicago developed its rail plan, the truckers refused to come to the table for fear of revealing their customers and, therefore, the rail plan is not integrated with the highway plan. Oopsl Further problems occur because the plan for O'Hare is not connected with the surface system and the Port of Chicago is on its own and not part of any plan to facilitate the movement of goods.

We may need new Interstates, but more importantly, I feel we to re-engineer and reconfigure the system to wring out more efficiency. We could do this by developing more efficient network performance through higher levels of integration, consolidation and connectivity. I feel this next highway bill is the platform to use to start the process. This cannot be done in a day, but for over a decade we have watched our nation lose position relative to the other trading blocs, and we need to get started today. China will finish it first phase of a massive multi-modal, power and communications infrastructure in 2020. We cannot be left behind!

Question 4. "During the Questions and Answers portion of the hearing, I asked Mr. Potts about the negative perceptions associated with what some call the 'NAFTA Super highway'. Around the country, my State in particular, people are concerned that in many ways we may be losing our sovereignty by developing large transportation corridors into neighboring countries. Do you think these concerns are warranted? "

Response. There are two different issues involved with this question. The first is how the emergence of a new global economic geography based on trading blocs (EU, Russian Federation—China and India) is affecting the U.S. economy and transportation system. The second is how the Dallas, Texas based initiative, "NASCO—North American Super Corridor Organization," is affecting U.S. sovereignty.

The first issue is key to developing the future of our national system. Prior to the collapse of the Soviet Union, the U.S. was the largest "Free World" economy. In this configuration, our nation provided the "defense shield" against Communist aggression and, in exchange, our allies supported our economy. Following the collapse of communism in 1991, economic integration pulled China and India into the global marketplace. With an economy only a fraction of that of the U.S., but with a potential workforce and consumer base five times our size, China and India drove the creation of a new global economic geography, based on creating larger economic units, such as NAFTA, the EU and the Russian Federation, that could more effectively compete with the new super size nations that were now part of the world economy. Without a national policy and development framework, the US is unable to negotiate with either Canada or Mexico to work out how the transportation system that is the foundation for how the North American trading bloc can compete. The lack of a negotiated strategy is driving both Canada and Mexico to develop national strategies that will facilitate their economies, but may be detrimental to the US. As a result, North America is the only major trading bloc in the world today without a continental scale transportation strategy. This represents a very real threat to the future of our economic status in the world.

I feel this is a question that needs to be addressed, and that there is too much misinformation and misplaced fear concerning global competition that could lead us in a protectionist direction that would doom our economy. In closing, it is important to note that the U.S. is looking to global growth to pull us away from recession. global capital to fund our debt and to attract support for our financial system. Cut the world offhand we are in serious trouble.

Senator BOXER. Thank you, sir. That was very interesting.

Since we have been joined by my Ranking Member, Senator Inhofe, I would love to turn to him for an opening statement, and then we will continue with the panel.

OPENING STATEMENT OF HON. JAMES M. INHOFE, U.S. SENATOR FROM THE STATE OF OKLAHOMA

Senator INHOFE. Thank you, Madam Chairman. I appreciate the opportunity to talk about one of the most critical issues that we are

faced with here. There is no denying that the level of commitment to our Nation's infrastructure is directly linked to the United States' continued place as the world economic leader. And I am pleased, Madame Chairman, that you have convened this hearing to examine the role of freight movement on our Nation's highways.

When President Eisenhower first conceived the National Inter-State System over 50 years ago, he could not have imagined that the Nation's transportation system, once coveted by the world for its innovative planning and connectivity, would be struggling to accommodate the exponential growth in people and goods movements today. Much of our industrial success and our rapidly growing GDP is the result of our "just in time economy," which relies heavily on the free flowing transportation network.

I would ask unanimous consent that I put the remainder of my statement in the record and just comment that this is a problem that we talked about all the time. We went through, in 2005, a huge bill. At that time the Republicans were the majority. I think it went down as the largest non-defense spending bill in history, and, yet, it has barely maintained what we have today.

We recognized at that time that we were going to have to do some innovative things to resolve this, and it is going to have to include everything. A lot of people don't realize, in my State of Oklahoma, that we actually have barge traffic. So we are going to have to address this thing. It is a serious problem, and I appreciate you bringing this to the public's attention.

[The prepared statement of Senator Inhofe follows:]

STATEMENT OF HON. JAMES M. INHOFE, U.S. SENATOR
FROM THE STATE OF OKLAHOMA

Thank you, Chairman Boxer. I appreciate the opportunity to examine the movement of goods on our nation's highways and its contributions to our future competitive trade advantage with other nations. There is no denying that the level of commitment to our nation's infrastructure is directly linked to the United States continued place as the world economic leader. Thus, I am pleased, Madame Chairman, that you have convened this hearing to examine the role of freight movement on our nation's highways.

When President Eisenhower first conceived the National InterState System over 50 years ago he could not have imagined that the nation's transportation system, once coveted by the world for its innovative planning and connectivity, would be struggling to accommodate the exponential growth in people and goods movement of today. Much of our industrial success and our rapidly growing GDP is the result of our "just in time economy," which relies heavily on a free flowing transportation network.

Our nation's roads and bridges move close to $40 billion worth of goods daily, and with that number expected to rapidly increase with the growth in foreign trade and doubling of American port capacity, our infrastructure problem will soon be a crisis. Our expansive network of highways is operating well above its designed capacity, and as trucks continue to be delayed by congestion, which DOT estimates as an $8 billion loss every year, our economy will suffer.

As I have said many times before, current funding of our highway program is barely enough to maintain the system, let alone provide for much needed new comprehensive investment in future infrastructure needs. We cannot afford to ignore the consequences of barely "maintaining" our transportation networks while the rest of the world continues to spend heavily on bigger and better ways of competing with our once superior highway system.

The rest of the world is financing new ports, highways, and sophisticated rail networks to attract new commerce, yet we are falling behind. There is no question that there will be a negative impact on our own industries if we fail to provide a free flowing transportation system. Today, business has moved away from a warehousing business model to a "just in time" model that depends on getting what they need when they need it. If we want to encourage our manufacturing industries to stay

in this country, one of the things we must do is provide adequate transportation infrastructure.

Our neighbors to the North and South are committing billions to the construction of new high capacity ports and rail systems specifically to divert foreign cargo trade away from our heavily congested ports in the Northeast and Southern California . The United States ' economy cannot afford to be outpaced in infrastructure spending by other rapidly growing countries, eager to attract new commerce to their economies.

The reliable and free flowing movement of goods on our nation's highways is, in my opinion, of the strongest Federal interest. There is no more important role of Federal Government as it relates to transportation than to address the needs that affect the vitality of our interState commerce, and our economy as a whole. As we gear up for re-authorization of the Highway Bill, it is critical that we explore the ideas of a new national freight movement program. It is time for a new vision on how we address the exponential growth of goods movement, and I think it is time to seriously consider a separate program dedicated to freight.

As we begin reauthorization discussions, my hope is that we will be able to work together in developing solutions to our critical transportation infrastructure needs which may include making bold changes to the traditional Federal highway program.

Senator BOXER. Thank you so much, Senator Inhofe. And I do look forward to working with you on our next reauthorization.

Next we will hear from Charlie Potts, CEO, Heritage Construction and Materials, The Heritage Group, on behalf of the American Road and Transportation Builders Association. Thank you, sir, for being here.

STATEMENT OF CHARLIE POTTS, CEO, HERITAGE CONSTRUCTION AND MATERIALS, THE HERITAGE GROUP, ON BEHALF OF THE AMERICAN ROAD AND TRANSPORTATION BUILDERS ASSOCIATION

Mr. POTTS. Chairman Boxer, Senator Inhofe, first of all, I want to thank you for giving me the opportunity to speak to you today and for recognizing the enormous crisis that we as a Nation face with America's transportation network.

The 2009 reauthorization of the Federal Surface Transportation Program I think provides the best opportunity in more than 50 years to chart a new course for the future of America's highway and transit systems. In 2002, The Brookings Institution published a book celebrating the Federal Government's top 25 accomplishments of the 20th century. Ranked number 7 was the 1956 law establishing our interState system. It represented a bold vision and it filled an unmet need and established a clear Federal responsibility.

While a national system of highways seems like a foregone conclusion today, the 1956 legislation was quite controversial and it actually took years to enact. And most of us, I think, would agree today that the battles fought and ultimately won to create the interState highway system was well worth that effort.

But I think now it is time to wage a transportation battle for the 21st century. America's transportation network is facing Herculean challenges, as you have already pointed out. Highway bottlenecks cause the trucking industry $8 billion per year and 243 million hours of lost time annually. Traffic congestion drains $78 billion from the United States economy in lost productivity and wasted fuel. Federal Government projections of expanding freight shipments, increasing automobile usage, and growing population over the next 25 years pose an even greater threat.

The debate over a new vision for the Federal role in transportation has been waged over the past few years, and throughout these wide-ranging discussions there has been one overwhelming agreement in all of the comments: there is no national strategy for the movement of goods. Yes, there are several Federal programs that have a freight component and the U.S. Department of Transportation has created a Corridors of the Future program. But distributing seed money to a handful of projects in a piecemeal fashion does not constitute a national plan to help ensure U.S. competitiveness in a global market.

A U.S. Department of Transportation report shows one-quarter of the economic activity in each State depends on the ability to move goods on the nationwide highway system. As such, efficient freight movement is critical for all States and warrants a national solution.

A General Accountability Office report earlier this year called for a national freight strategy. The deliberations of the National Surface Transportation Policy and Revenue Study Commission also underscored the need for bold Federal action to ensure reliable goods movement.

The question then becomes how do we achieve the goal of a federally led freight program? Shortly after the enactment of SAFETEA-LU, ARTBA members began the process of developing specific proposals for the 2009 reauthorization debate. In January 2007, ARTBA called for the creation of a new Critical Commerce Corridors, or a 3C program.

Now, while my written testimony describes this proposal in much more detail, I would like to at least provide a brief overview of the concept.

Under our proposal, the U.S. Department of Transportation would bring together public and private sector stakeholders to develop a strategic national business plan for the 3C program. It would include a proposed national 3C map that ties together regionally developed freight system maps and a proposed short-and long-range schedule for executing and completing proposed 3C projects by region.

We envision the 3C program being financed outside the Highway Trust Fund, with new freight-related user fees. The concept of user fee financing for transportation programs has proven to be an effective and stable source of revenue for long-term projects. We think we should build on this successful model in developing a national freight program.

It is essential, however, that existing roads and public transportation programs not be shortchanged to support the new 3C program. As such, we also recommend creating a budget firewall to ensure that new 3C revenue are used exclusively to enhance freight movement.

Madam Chairman, over the past decade I have had the opportunity to discuss America's transportation challenges with industry, business, government, and civil groups across the Nation. I am convinced the American public and business community will support the future Federal Surface Transportation Program that we are proposing. We urge you and all Members of Congress to seize

the opportunity the 2009 reauthorization debate presents, and I look forward to working with you in this effort.

Again, I want to thank you for this opportunity to speak to you, and I would be happy to answer questions later. Thank you.

[The prepared statement of Mr. Potts follows:]

"Goods Movement on our Nation's Highways"

Testimony before the Committee on Environment and Public Works, U.S. Senate

By Charles Potts, CEO, Heritage Construction and Materials, and Senior Vice Chairman, American Road and Transportation Builders Association

May 8, 2008

Madam Chairman, Senator Inhofe and members of the Committee, thank you very much for inviting me to testify this morning on "Goods Movement on our Nation's Highways." I am Charles Potts, CEO of Heritage Construction and Materials of Indianapolis, Indiana, and the 2008 Senior Vice Chairman of the American Road and Transportation Builders Association.

As a construction contractor and business owner, it is critically important to me to be able to obtain construction materials from my suppliers and get them to my construction sites on a timely basis. If that doesn't happen, work doesn't get done on schedule and productivity goes down. I may be involved in highway construction, but my dependence on highways to transport the materials I need in my business is no different from millions of other businesses in virtually every industry in the American economy.

Importance of Highways to the Nation's Economy

The U.S. economy is a vast network of businesses that produce goods and services for America's 115 million households, for export to foreign countries or for use by other businesses. The tie that binds these businesses to their customers, suppliers and workers is the U.S. highway system.

Each year, U.S. manufacturing firms, mining companies and wholesalers ship more than $8 trillion dollars worth of products through the nation's transportation system. When shipments of farm products, construction materials, retail firms and exports to other countries are included, the total comes to more than $11 trillion.

A few products, primarily bulk products like coal and ores, can be carried efficiently by rail or barge. High value products needing time-sensitive delivery can be carried by air.

But by far the largest fraction of shipments is carried on the nation's highways by commercial motor vehicles. For the vast majority of businesses, truck transportation provides the most flexible, efficient and cost-effective way of delivering products to customers.

A survey of manufacturing, mining and wholesale commodity flows conducted by the U.S. Bureau of the Census in 2002 found that three-quarters of the $8.4 trillion of shipments by these three sectors of the U.S. economy were carried exclusively by truck along the nation's highways. Of the $2.2 trillion not carried exclusively by trucks, truck transportation still played an important role as part of multimodal shipments that also involved rail, water or air transportation. In fact, only $800 billion, or one tenth, of all shipments did not involve truck transportation.

Other surveys, including the Federal Highway Administration's Freight Analysis Framework data, show a similar dependence on the nation's highways to ship the freight and products that allow our economy to grow and prosper.

The importance of the nation's highways to the growth and performance of the national economy has been recognized by policymakers for almost a century. The first legislation authorizing the federal government to invest in highways was enacted by Congress in 1916. In 1956, Congress created the Dwight D. Eisenhower System of Interstate and Defense Highways and established the Highway Trust Fund to finance a nationwide highway system designed to serve the national economy. The transportation efficiencies brought about by these decisions were a major contributor to the post-war growth of the U.S. economy. Recent innovations like the adoption by U.S. firms of just-in-time delivery have continued to cut transportation costs and improve productivity.

Impact of Highway Congestion on Freight Transportation

In recent years, however, the performance of our nation's highway system has deteriorated due to inadequate investment. Most of the concern has focused on the growing amount of time commuters and travelers spend driving in congested conditions and the resulting cost of wasted time and fuel. But congestion also has a negative effect on the nation's economy by impeding the flow of freight, which raises transportation costs and reduces productivity of the nation's businesses.

A study prepared recently for the Federal Highway Administration found that bottlenecks on the nation's highway system—caused by congested intersections, poor highway operations, inadequate capacity and poor alignments—impose 243 million hours of delay on truck shipments with the direct costs of the delays totaling $7.8 billion per year. As the study found:

> Freight bottlenecks are a problem today because they delay large numbers of truck freight shipments.... Higher transportation prices and lower reliability can mean increased supply costs for manufacturers, higher import prices, and a need for businesses to hold more expensive inventory to prevent stock outs. The effect on individual shipments and transactions is usually modest, but over time the costs can add up to a higher cost of doing business for firms, a higher cost of living for consumers, and a less productive and competitive economy.(P.1-1)

A major part of the problem is that the capacity of our nation's highway system has failed to keep pace with the volume of traffic. Since 1982, the number of miles traveled by all

vehicles on the nation's highways has almost doubled, but capacity has grown only 6.5 percent. As a result, the average amount of time spent by highway users, including trucks in congested conditions, has almost tripled.

The growing volume of truck traffic is part of the problem. Between 1987 and 2002, the number of trucks on the nation's highways increased almost 50 percent from 3.6 million to 5.4 million, while the number of miles traveled rose more than 60 percent. The biggest increases in both numbers and vehicle miles traveled were registered by the largest trucks, which are capable of transporting 80,000 pounds of freight or more.

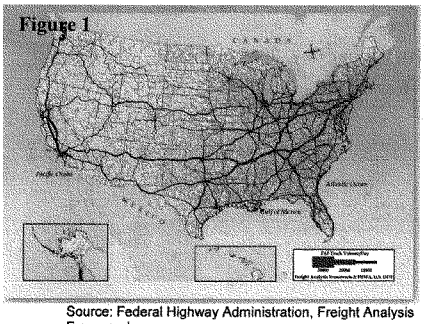
Future Growth Projections for Freight

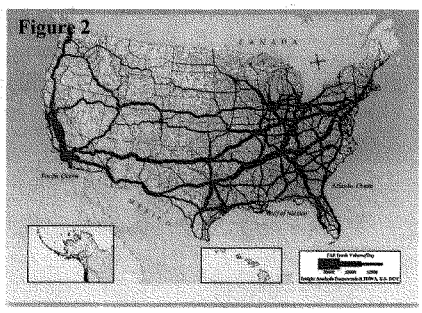
As we look into the future, it is virtually certain the situation will get worse.

The main economic concern is that truck traffic is projected to double by 2035. According to the Federal Highway Administration, the volume of truck-borne freight will increase from 11.5 billion tons in 2002 to 22.8 billion tons by 2035. Trucking is projected to be the fastest growing mode of freight shipments except for air freight, which even with the growth will take only a fraction of one percent of the total volume. The value of truck shipments is projected to triple, from $8.8 trillion in 2002 to $23.8 billion in 2035, emphasizing the critical importance of highway transportation to the nation's economy.

The pressure this would put on the nation's highway infrastructure is shown in Figures 1 and 2. Figure 1 illustrates the volume of long-haul truck traffic along major U.S. highways in 2002. Figure 2 shows projected truck traffic along the same routes in 2035. North-south routes in the east and west and east-west routes along the midsection of the country all show truck traffic doubling or worse.

Estimated Average Daily Long-Haul Truck Traffic, 2002 and 2035





Source: Federal Highway Administration, Freight Analysis Framework

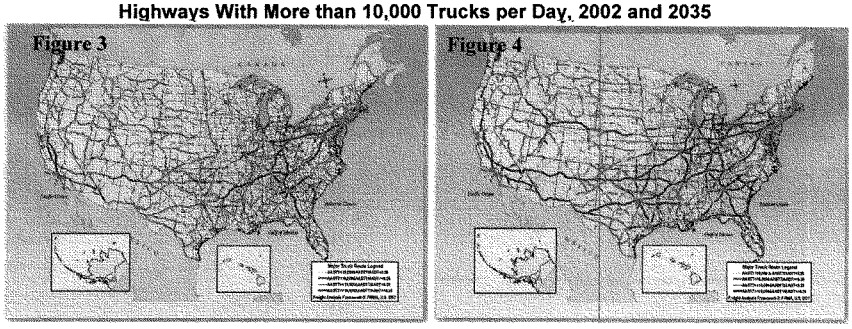
According to FHWA, there are many miles of road in the United States where trucks make up one-quarter of the total traffic or more. More than 4,000 miles of these roads carry heavy truck traffic, defined as more than 10,000 trucks per day. Some examples include:

- I-5 from California to Washington State, where truck traffic averages 10,000 per day and can hit over 35,000 trucks on some segments;
- I-70 from Missouri to Ohio where average volume exceeds 11,000 trucks per day and maxes at 26,000; and
- I-95 from Washington, DC to Florida, where truck traffic averages 10,000 per day with segments at 31,000.
- Segments of I-10, which runs from California to Florida, can carry more than 55,000 trucks per day while segments of I-15, from California to Utah, can see truck traffic of more than 60,000 per day.

On thousands of additional miles, trucks comprise more than one-quarter of the traffic but the number of trucks per day is less than 10,000. Figure 3 shows that highways where trucks are one-quarter or more of the traffic exist all across the country, including many rural areas.

By 2035, FHWA anticipates trucks will be one-quarter or more of the traffic on 14,000 miles where the number of trucks average 10,000 per day, an increase of almost 230 percent. As Figure 4 shows, this would include almost all of I-10, almost all of I-40 and much of I-80, in addition to current heavy truck routes. Under these projections, highways all up and down the East and West Coasts would be congested with truck traffic. The average number of trucks would grow to 20,000 per day on almost all of I-10, to 27,000 per day on I-15, and to 31,000 per day on I-95—double to triple the current volume. Virtually every state would have some freight highway with heavy truck traffic.

Highways With More than 10,000 Trucks per Day, 2002 and 2035

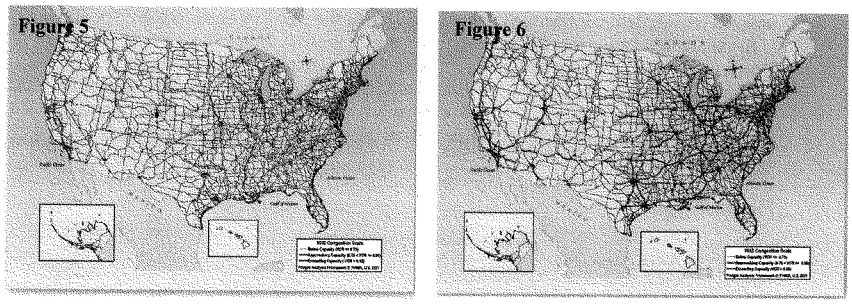


Source: Federal Highway Administration, Freight Analysis Framework

And as time goes on, the nation's freight will spend much more time in congested highway conditions than today. Currently, recurrent congestion slows or stops traffic on over 6,300 miles of highways that carry more than 10,000 trucks per day as shown in Figure 5. By 2035, a projected 28,100 miles of major truck routes will experience recurrent congestion that slows or stops traffic, shown in Figure 6. According to FHWA:

- Of the 550 miles of urban segments on I-5, more than 65 percent currently experience heavy congestion; by 2035, that will grow to 95 percent. Congestion on non-urban segments will grow from 31 percent to 85 percent.
- On I-10, 53 percent of urban segments currently experience heavy congestion; by 2035, 96 percent will be congested. Congestion on non-urban segments will spread from four percent to 45 percent.
- On I-70, 97 percent of urban segments will be congested by 2035 compared to 53 percent today. Congestion on non-urban segments will grow from 16 percent to over 87 percent.
- And on I-95, congestion on urban segments will grow from 60 percent currently to virtually 100 percent, while congestion on non-urban segments will increase from 26 percent to 55 percent.

Peak Period Congestion on Major Truck Routes, 2002 and 2035



Source: Federal Highway Administration, Freight Analysis Framework

Transportation Infrastructure and Global Competitiveness

When American citizens and elected officials think about the nation's transportation challenges, the common focus is on congestion, public safety, and overall quality of life. These outcomes alone warrant dramatic upgrades to the nation's highway, transit and rail networks. What is often overlooked, however, is the role effective transportation systems play in a country's competitiveness in the global marketplace. Transportation networks

are the circulatory system of an economy and can enable, or impede, domestic and international commerce through the efficiency of freight transportation.
This undeniable fact is clearly recognized by some of the U.S. major trading partners and competitors:

- In 2004, China announced the initiation of a 52,000 mile expansion of its National Transportation Highway System. It should be noted that in 2001, China's investment in highway infrastructure was 2.5 percent of the nation's gross domestic product (GDP). By comparison, U.S. highway investment in 2004 represented 0.65 percent of GDP.

- India has launched a $50 billion upgrade for its 40,000 miles of expressways.

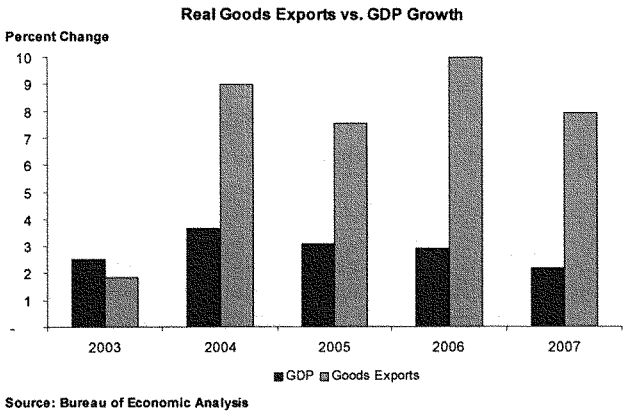
- The European Union (EU) in 2005 identified "30 Priority Axes"—critical transnational transportation improvement projects slated for $300 billion in improvements. The EU also has set goals of expanding its highway capacity by almost 3,000 miles and rail network by nearly 8,000 miles by 2020.

These countries have made commitments to improving their surface transportation systems because they recognize the direct correlation between economic strength and the effectiveness of national infrastructure networks.

Freight Infrastructure and Exports

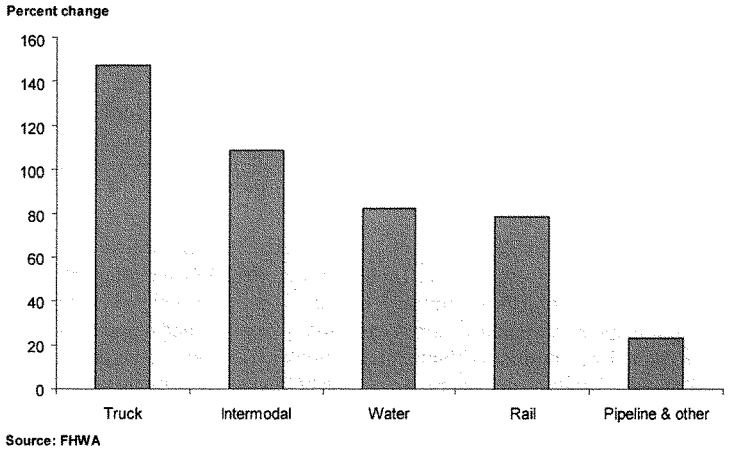
Keeping the U.S. competitive in the world economy will require that we also invest in the nation's transportation infrastructure network. During the past four years, the growth of U.S. exports has far outpaced our domestic economic growth, as measured by the Gross Domestic Product. Without this strong showing from the export sector, the recent U.S. economic struggles would have been exacerbated and potentially increased the threat of a recession. Since 2004, the value of U.S. exports has increased an average of about nine percent per year compared to about three percent annual growth of the overall economy, as shown in Figure 7.

Figure 7



The Federal Highway Administration forecasts that freight export shipments will increase 112 percent between 2002 and 2035. Truck and intermodal shipments accounted for 81 percent of total export shipments in 2002. This share will grow to 83 percent in 2035, with truck and intermodal export shipments growing 147 and 109 percent, respectively, in that period, as shown in Figure 8.

Figure 8



Exports are of critical importance to the U.S. economy. What is often overlooked, however, is the fact that exports are reliant on an efficient transportation infrastructure network. Quite simply, products cannot be sold overseas without being transported to an international departure point. Consequently, an integrated and well-funded national freight program is necessary for the U.S. to remain competitive and support its domestic economy.

Importance of Highways to Economic Prosperity of the States

Despite the clear importance of the nation's highway system to the growth and prosperity of the nation's economy, some are suggesting the federal government should turn responsibility for highway investment to state and local governments. With the Interstate Highway System at maturity, they argue, there is no further productive role for the federal government in setting highway investment policies or financing highway improvements. Under this line of thinking, state and local governments, which know their highway investment needs better than the federal government, should decide appropriate investment levels and carry out highway improvements.

One factor contributing to this attack on the federal highway program is that little information exists on the extent to which each state's economic prosperity depends on the transportation services provided by highways in other states. No state exists in an economic vacuum. The economic prosperity of each state depends heavily on the ability of its local businesses to access markets and customers around the country. That access is provided primarily by highways. Even if a state were to do an outstanding job of building and maintaining its own highways, that effort would support only a small fraction of the state's overall economic activity. The state's economy would still be vulnerable to highway investment decisions made by policymakers in other states.

This is a particularly important concern for long-haul traffic to distant markets. If road improvements were financed solely or primarily by locally-generated taxes, state departments of transportation (DOTs) would be responsible to invest funds in ways that benefit local taxpayers. DOTs would have little or no incentive to build or maintain roads for freight traffic passing through the state. The nation's highway system would become balkanized and no longer support a national economy.

The importance of a nationwide freight system to the economic prosperity of each state is illustrated by the data in Tables 1 and 2. Table 1 shows, for 2002, the total value of products shipped by manufacturers, mining companies and wholesalers that originated in each state, split between shipments carried exclusively by truck and shipments carried by other modes, including intermodal shipments. Nationwide, almost 75 percent of all freight is shipped solely by truck over the nation's highways. For some states, like North and South Carolina, the fraction is much higher—almost 90 percent. In only one state, Wyoming, which is a large producer of coal, do trucks carry less than half of freight shipments.

Even more illustrative of the need for a nationwide highway system are the data in Table 2. This table breaks down truck shipments into three groups -- shipments that remain entirely within each state, short-haul shipments to adjacent states and long-haul shipments that go through one or more states before reaching their destination. As the table shows, only 44 percent of the value of truck shipments remains within the originating state. Another 20 percent represents short-haul shipments that originate in one state to destinations in adjacent states. The remaining 36 percent are long-haul shipments that go completely through one or more states before reaching their final destinations. For some states, like Kansas, Maine, Nebraska, Mississippi, New Jersey and South Carolina, long-haul shipments represent more than half of all truck-borne shipments originating within the state. For many large states, like Illinois, Missouri and Ohio, as much as 40 percent of truck shipments are long-haul across one or more states.

The economic prosperity of the states would thus be highly vulnerable to devolution of highway responsibilities to state and local governments.

This vulnerability will persist well into the future. According to projections by the Federal Highway Administration, the total value of freight shipments is expected to grow

to $29.6 trillion in 2035. Of this total, $21.7 trillion is expected to be shipped solely via truck, accounting for 73 percent of all freight shipments. Nearly $10.4 trillion in truck shipments, almost half, will go to out of state destinations, of which $6.0 trillion is projected to go to out of state destinations that are not neighboring states.

These data clearly demonstrate the dependence of shippers in one state on the highway network in other states. Correspondingly, this information also conclusively proves an efficient national system for the movement of freight is necessary.

Comprehensive Approach Needed

There is currently no national program or dedicated funding source to facilitate the efficient and secure movement of freight and the scope of this challenge is beyond the ability of an individual state or local planning authority to address. While several programs relate to this challenge, such as SAFETEA-LU's trade corridor and projects of regional and national significance programs, they do not provide the comprehensive approach necessary to deliver a national freight movement system that will allow the U.S. to retain and improve its global competitiveness.

The flaw of a piece-meal approach to solving this nation's freight challenges is illustrated by the Bush Administration's Corridors of the Future effort. The purpose of the project, which was announced September 10, 2007, is to "develop innovative national and regional approaches to reduce congestion and improve the efficiency of freight delivery." The effort, however, was limited to six routes—all Interstate highways—with announced funding far below the amounts that will be needed to alleviate congestion on these corridors:

- The I-5 corridor, a 1,350-mile Interstate highway traversing the entire length of California, Oregon and Washington, received an award of $15 million that is to focus largely on the Columbia River Bridge between Oregon and Washington despite the fact that 65 percent of the urban mileage on this highway is already experiencing heavy congestion.

- The I-95 corridor from Washington, D.C., to Florida is scheduled to receive a total of just under $22 million for projects developed by five states including widening much of the highway to eight lanes. In addition, nearly all of the bridges in the corridor will need widening or total replacement.

- The I-10 corridor, a 2,600 mile highway from California to Florida with more than half of the 700 miles in urban areas highly congested, was granted a total of $8.8 million for two projects to widen the roadway in Arizona and Louisiana.

- The other three corridors—I-15 from California to Utah, I-69 from Texas to Michigan, and I-70 from Missouri to Ohio—all received similarly small and uncoordinated amounts despite heavy and growing congestion on many segments.

Table 1. Importance of Truck Transportation to State Economic Prosperity
(Millions of dollars)

State	Total value of products shipped	Products shipped by truck		Products shipped by other modes	
		Value	Percent of total	Value	Percent of total
Alabama	$127,727	$101,595	79.5%	$26,132	20.5%
Alaska	$8,032	$4,620	57.5%	$3,412	42.5%
Arizona	$111,273	$73,237	65.8%	$38,036	34.2%
Arkansas	$91,967	$78,165	85.0%	$13,802	15.0%
California	$923,669	$625,530	67.7%	$298,139	32.3%
Colorado	$93,184	$64,155	68.8%	$29,029	31.2%
Connecticut	$82,477	$61,768	74.9%	$20,709	25.1%
Delaware	$20,348	$14,481	71.2%	$5,867	28.8%
District of Columbia	$3,707	$3,576	96.5%	$131	3.5%
Florida	$296,989	$226,639	76.3%	$70,350	23.7%
Georgia	$270,703	$224,029	82.8%	$46,674	17.2%
Hawaii	$13,480	$7,484	55.5%	$5,996	44.5%
Idaho	$28,471	$19,094	67.1%	$9,377	32.9%
Illinois	$442,130	$328,191	74.2%	$113,939	25.8%
Indiana	$291,458	$225,612	77.4%	$65,846	22.6%
Iowa	$115,396	$92,849	80.5%	$22,547	19.5%
Kansas	$95,285	$69,645	73.1%	$25,640	26.9%
Kentucky	$189,390	$157,473	83.1%	$31,917	16.9%
Louisiana	$139,843	$55,481	39.7%	$84,362	60.3%
Maine	$32,355	$25,307	78.2%	$7,048	21.8%
Maryland	$121,356	$104,030	85.7%	$17,326	14.3%
Massachusetts	$200,813	$145,408	72.4%	$55,405	27.6%
Michigan	$388,571	$303,640	78.1%	$84,931	21.9%
Minnesota	$166,430	$114,842	69.0%	$51,588	31.0%
Mississippi	$94,897	$82,103	86.5%	$12,794	13.5%
Missouri	$185,392	$134,904	72.8%	$50,488	27.2%
Montana	$12,447	$8,281	66.5%	$4,166	33.5%
Nebraska	$61,797	$49,569	80.2%	$12,228	19.8%
Nevada	$40,756	$27,748	68.1%	$13,008	31.9%
New Hampshire	$31,191	$19,541	62.6%	$11,650	37.4%
New Jersey	$286,580	$210,095	73.3%	$76,485	26.7%
New Mexico	$14,907	$11,118	74.6%	$3,789	25.4%
New York	$318,775	$231,714	72.7%	$87,061	27.3%
North Carolina	$293,604	$264,443	90.1%	$29,161	9.9%
North Dakota	$18,921	$13,126	69.4%	$5,795	30.6%
Ohio	$494,278	$377,110	76.3%	$117,168	23.7%
Oklahoma	$77,576	$60,450	77.9%	$17,126	22.1%
Oregon	$102,600	$73,655	71.8%	$28,945	28.2%
Pennsylvania	$354,399	$287,156	81.0%	$67,243	19.0%
Rhode Island	$21,035	$14,475	68.8%	$6,560	31.2%
South Carolina	$143,194	$126,452	88.3%	$16,742	11.7%
South Dakota	$26,430	$15,634	59.2%	$10,796	40.8%
Tennessee	$286,576	$229,373	80.0%	$57,203	20.0%
Texas	$589,064	$379,531	64.4%	$209,533	35.6%
Utah	$61,515	$45,233	73.5%	$16,282	26.5%
Vermont	$16,238	$12,571	77.4%	$3,667	22.6%
Virginia	$164,557	$137,943	83.8%	$26,614	16.2%
Washington	$177,395	$89,594	50.5%	$87,801	49.5%
West Virginia	$38,479	$28,536	74.2%	$9,943	25.8%
Wisconsin	$217,451	$172,120	79.2%	$45,331	20.8%
Wyoming	$12,106	$5,675	46.9%	$6,431	53.1%
US total	**$8,397,214**	**$6,235,001**	**74.3%**	**$2,162,213**	**25.7%**

Source: U.S. Census Bureau. 2002 Commodity Flow Survey

Table 2. Value of Products Shipped by Truck Within State and to Other States
(Millions of dollars)

		Shipped within the state		Shipped to other states			
State	Total value of products shipped by truck	Value	Percent of total	Short-haul to adjacent states	Percent of total	Long-haul through one or more states	Percent of total
Alabama	$101,595	$35,672	35.1%	$27,502	27.1%	$38,421	37.8%
Alaska	$4,620	$4,545	98.4%	$0	0.0%	$75	1.6%
Arizona	$73,237	$44,662	61.0%	$15,290	20.9%	$13,285	18.1%
Arkansas	$78,165	$19,812	25.3%	$24,722	31.6%	$33,631	43.0%
California	$625,530	$426,436	68.2%	$34,653	5.5%	$164,441	26.3%
Colorado	$64,155	$35,778	55.8%	$8,584	13.4%	$19,793	30.9%
Connecticut	$61,768	$18,420	29.8%	$17,869	28.9%	$25,479	41.2%
Delaware	$14,481	$2,977	20.6%	$5,399	37.3%	$6,105	42.2%
District of Columbia	$3,576	$534	14.9%	$837	23.4%	$2,205	61.7%
Florida	$226,639	$168,216	74.2%	$12,588	5.6%	$45,835	20.2%
Georgia	$224,029	$89,104	39.8%	$68,628	30.6%	$66,297	29.6%
Hawaii	$7,484	$7,484	100.0%	$0	0.0%	$0	0.0%
Idaho	$19,094	$8,635	45.2%	$3,970	20.8%	$6,489	34.0%
Illinois	$328,191	$137,488	41.9%	$57,155	17.4%	$133,548	40.7%
Indiana	$225,612	$65,035	28.8%	$75,472	33.5%	$85,105	37.7%
Iowa	$92,849	$26,617	28.7%	$24,638	26.5%	$41,594	44.8%
Kansas	$69,645	$21,745	31.2%	$13,728	19.7%	$34,172	49.1%
Kentucky	$157,473	$37,716	24.0%	$44,308	28.1%	$75,449	47.9%
Louisiana	$55,481	$29,579	53.3%	$9,506	17.1%	$16,396	29.6%
Maine	$25,307	$9,154	36.2%	$2,219	8.8%	$13,934	55.1%
Maryland	$104,030	$39,580	38.0%	$32,515	31.3%	$31,935	30.7%
Massachusetts	$145,408	$49,175	33.8%	$26,110	18.0%	$70,123	48.2%
Michigan	$303,640	$170,521	56.2%	$39,669	13.1%	$93,450	30.8%
Minnesota	$114,842	$54,836	47.7%	$15,610	13.6%	$44,396	38.7%
Mississippi	$82,103	$17,961	21.9%	$15,782	19.2%	$48,360	58.9%
Missouri	$134,904	$51,224	38.0%	$31,878	23.6%	$51,802	38.4%
Montana	$8,281	$5,716	69.0%	$1,077	13.0%	$1,488	18.0%
Nebraska	$49,569	$16,881	34.1%	$8,644	17.4%	$24,044	48.5%
Nevada	$27,748	$10,810	39.0%	$9,943	35.8%	$6,995	25.2%
New Hampshire	$19,541	$4,284	21.9%	$5,647	28.9%	$9,610	49.2%
New Jersey	$210,095	$63,662	30.3%	$41,506	19.8%	$104,927	49.9%
New Mexico	$11,118	$5,975	53.7%	$2,596	23.3%	$2,547	22.9%
New York	$231,714	$103,270	44.6%	$45,183	19.5%	$83,261	35.9%
North Carolina	$264,443	$106,428	40.2%	$53,715	20.3%	$104,300	39.4%
North Dakota	$13,126	$6,902	52.6%	$2,931	22.3%	$3,293	25.1%
Ohio	$377,110	$133,607	35.4%	$99,469	26.4%	$144,034	38.2%
Oklahoma	$60,450	$20,624	34.1%	$23,191	38.4%	$16,635	27.5%
Oregon	$73,655	$35,233	47.8%	$26,960	36.6%	$11,462	15.6%
Pennsylvania	$287,156	$101,969	35.5%	$82,213	28.6%	$102,974	35.9%
Rhode Island	$14,475	$2,883	19.9%	$4,108	28.4%	$7,484	51.7%
South Carolina	$126,452	$37,045	29.3%	$27,304	21.6%	$62,103	49.1%
South Dakota	$15,634	$6,246	40.0%	$3,883	24.8%	$5,505	35.2%
Tennessee	$229,373	$49,775	21.7%	$59,888	26.1%	$119,710	52.2%
Texas	$379,531	$255,435	67.3%	$33,840	8.9%	$90,256	23.8%
Utah	$45,233	$20,747	45.9%	$8,266	18.3%	$16,220	35.9%
Vermont	$12,571	$3,930	31.3%	$4,894	38.9%	$3,747	29.8%
Virginia	$137,943	$64,531	46.8%	$26,498	19.2%	$46,914	34.0%
Washington	$89,594	$58,735	65.6%	$10,317	11.5%	$20,542	22.9%
West Virginia	$28,536	$7,409	26.0%	$10,700	37.5%	$10,427	36.5%
Wisconsin	$172,120	$67,297	39.1%	$43,954	25.5%	$60,869	35.4%
Wyoming	$5,675	$3,698	65.2%	$1,125	19.8%	$852	15.0%
US total	**$6,235,001**	**$2,765,998**	**44.4%**	**$1,246,483**	**20.0%**	**$2,222,520**	**35.6%**

Source: U.S. Census Bureau. 2002 Commodity Flow Survey

U.S. Transportation Network: A New Vision

Recognizing this is a situation that can no longer be left unaddressed, ARTBA is proposing a new 25-year federal initiative focused exclusively on developing the surface transportation capacity necessary to facilitate the secure and efficient movement of freight. The "Critical Commerce Corridors" (3C) program would be funded outside the federal motor fuels excises by new freight-related user fees and potentially other mechanisms with resulting revenues statutorily "fire-walled" for use only on "3C" projects. At the same time, the federal government must significantly increase its long-term financial commitment to the core highway and transit programs through the motor fuel excise to ensure improved regional mobility and safety for all citizens.

This complementary approach to transportation policy would enable a holistic surface transportation network to be developed that attempts to truly address varied mobility and economic challenges.

A consistent theme, if not goal, in the last three federal surface transportation program reauthorization bills has been to provide increased flexibility to states in use of their federal highway funding. The argument that state and local authorities know best the unique transportation challenges and needs of their area and constituents and should thus have control in directing the application of federal highway funds can be powerful.

It needs to be recognized, however, that this growing shift toward "flexible federal funds"—and earmarks—over the past 15-18 years has created a serious obstacle to meeting emerging national transportation infrastructure needs and objectives through the federal program.

For example, several new programs were established in the past two surface transportation bills that seek to address truly national transportation objectives (i.e., the "Projects of Regional and National Significance Program," and the border and corridor programs). These attempts at providing a federal leadership role, however, were significantly under funded and diluted by the perennial fight over highway funding formula returns.

Sometimes meeting national needs means allowing a federal role that uses funds collected from the citizenry as necessary to meet national objectives. While much of the current federal highway and public transportation programs are, and should remain, regionally focused and controlled, federal surface transportation program funds must not be considered entitlements. History has demonstrated it is entirely appropriate for the federal government to direct resources toward growing needs that are clearly in the national interest.

The Interstate Highway System would never have been built if each state alone had to pay for the segments running through it. The massive reconstruction and rehabilitation of the Interstate currently needed—and the construction and maintenance of the "Next Generation" expansion of the U.S. surface transportation system that is necessary to keep

America competitive during this century—may never be done without out enhanced federal direction.

Defining 3C

The first step in the implementation of 3C is defining the system itself. By its nature, a network that enables the efficient and secure movement of freight will extend beyond the borders of any one state or region and have a national scope. As such, the federal government, and specifically the U.S. DOT, should have the lead responsibility for coordinating the process that defines the 3C system.

Key Stakeholders

To be truly effective, however, the 3C initiative cannot be a top down direction from the federal government. It must have input and support from a wide variety of public and private stakeholders. Among the groups that must be intricately involved in identifying 3C are state departments of transportation, metropolitan planning organizations, the trucking and logistics industries, major port operators, representatives of international and domestic shippers, and the freight rail industry. Each of these sectors is either an owner or a major user of the nation's current surface transportation network.

The U.S. DOT should coordinate a process that brings these groups together to define a national freight transportation system that is developed regionally through the four geographic membership regions of the American Association of State Highway and Transportation Officials. A regionally-developed system would ensure the distinct freight challenges facing different parts of the country are uniquely addressed. This type of process would also facilitate the multi-state planning necessary to efficiently move freight while ensuring regional efforts are consistent with a national strategy.

The federal government and other relevant stakeholders have advanced technology and data available about the movement of U.S. domestic and international movement of freight.

These empirical resources should be harnessed to identify the priority segments of the U.S. surface transportation network for freight movement and where choke points currently, or are projected to, exist. The objective of this collaborative public-private process is to produce a comprehensive assessment of nation's current surface transportation freight network and what this system must become to provide the predictability and reliability necessary to ensure future U.S. global competitiveness.

Potential Components

The types of segments that would be potentially eligible for inclusion in the 3C network include: designated trade corridors; international gateways; access routes to major ports and airports; roadways that carry, or are projected to carry, over-the-road truck traffic significantly in excess of their design specifications; the Interstate Highway System;

intermodal connectors; and highway truck congestion points as identified by FHWA's 2005 bottleneck report. It is important to note, however, the system should not be limited to existing facilities, but also identify where new capacity is warranted.

Once the 3C system is identified, the stakeholders—particularly the U.S. DOT, state departments of transportation, and metropolitan planning organizations—should evaluate the cost of developing its various components. A cost assessment is necessary to provide both a realistic guide for future investments and an assessment of the amount of revenue that must be generated over the next 25 years. Generating a cost evaluation concurrent with the identification of 3C will help ensure the efficiency of the process and facilitate stakeholder support of the network that is being developed.

3C Financing

The utilization of user fees to finance surface transportation improvements has proven to be a reliable and equitable method to support the nation's highway and transit infrastructure network. User fees, by their nature, ensure the individuals or groups who derive the benefit from a service or product are responsible for its cost.

Currently, a series of highway user fees generate revenues that are deposited in the Highway Trust Fund to support the federal highway and public transportation programs. The most prominent of these is the federal excise tax on motor fuels which yields almost 90 percent of Highway Trust Fund revenues. There are also taxes on commercial trucks, tires, and heavy use vehicles. This structure should continue to provide the financial foundation for the core federal highway and transit programs. These user fees, however, must be increased to better enable these programs to meet their defined mission.

The user fee concept is also well suited to support 3C. A new freight-based user fee structure—perhaps including a dedicated increase in the federal diesel excise—should be developed to support a new national strategy to ensure the efficient and secure movement of freight. This is entirely consistent with the user fee concept, as those deriving the primary benefit from the predictability and reliability of 3C—shippers—would pay for its development and upkeep.

New Freight-Based User Fees

As part of the 3C system identification process involving appropriate stakeholder groups, the U.S. Secretary of Transportation should initiate a dialogue with private sector participants about appropriate methods to finance the system they are identifying. Again utilizing a public-private dialogue to develop a recommended financing structure would ensure the freight-based user fee mechanism is equitable, efficient, and will generate enough revenues over a 25-year period to cover the costs identified for 3C. The Secretary should strive to develop financing recommendations that are true user fees. Complying with the technical requirements of a true user fee would ensure that those paying for 3C are its primary beneficiaries.

It should be emphasized that the financing structure for 3C would likely require the creation of a composite structure consisting of several different freight-based user fees. It is unlikely one fee could generate the revenues necessary or be applied fairly among various freight stakeholders. Such fees could include:

- a bill of lading tax;
- weight-mileage based user fee;
- a federal freight transaction fee paid by businesses moving freight by truck;
- national freight transfer station entrance/use fees;
- federal customs fees;
- additional federal user fees;
- tolls where appropriate and consistent with the 3C system development process; or
- a mileage tax on truck travel in or on the 3C system.

The chart on page 58 demonstrates the value of annual U.S. freight shipments and the potential revenue generating opportunities that exist from an appropriately structured freight-based user fee system.

User fees collected on the shipment of freight would transcend the element of the financing model for the core highway program that creates a geographic focus on where revenues are generated and disbursed. An effective freight-based user fee should reflect the systemic benefits of the movement of freight in and out of the U.S. These benefits do not start and stop at the borders of an individual state.

Accordingly, the implementation of this type of financing structure would complement 3C's requirement for a national freight movement system.

Public-private partnerships and debt financing could also play roles in supporting the 3C program. These financing mechanisms are well suited to high cost projects that carry heavy traffic flow—two consistent elements of freight capacity enhancement projects.

Protection of New User Fees

Finally, to ensure the integrity of both the core federal surface transportation and 3C programs, and their financing sources, a statutory "fire-wall" should be created between these two revenue streams. This would guarantee that no one aspect of the new comprehensive structure of the federal surface transportation program is being diluted to benefit a separate component. Creating a clear separation between these revenues would also further ensure system users they will receive the benefits of the program they are financially supporting.

Administration

While 3C must be a federally-led initiative, it must also be administered in partnership with state departments of transportation as they are the primary owners of the nation's roadway

network. After identifying the segments that constitute the 3C system, the federal government should specify the types of eligible projects available for 3C funds. Consistent with the goal of facilitating the secure and efficient movement of freight, the types of activities that should be eligible for 3C funds would include:

- Capacity enhancements
- Lane widening
- Bridges and tunnels
- Bottleneck relief
- Technology applications and upgrades
- System reconstruction
- Vertical integration
- Freight exchange centers (public private partnerships)
- Managed and truck-only lanes

The development of a freight transportation network also has the potential to provide numerous ancillary benefits, particularly in the area of public safety. The separation of commercial and personal traffic through managed or truck-only lanes will improve both the predictability and reliability of travel and the level of safety for both forms of transport. Furthermore, the natural environment would be enhanced by reducing emissions generated from heavily-congested roadways. The 3C proposal offers much more than solely improving the security and efficiency of freight movement.

Freight Rail

While both highways and rail are integral to the movement of freight, rail lines are privately owned and highway infrastructure is the responsibility of the public sector. Freight rail inclusion in the 3C program is desirable, but should be contingent upon the creation and imposition of a user or beneficiary fee structure for freight rail shipments that would generate revenues commensurate with the benefits received from integrating freight rail into this system. Federal tax subsidies could potentially be used to leverage such revenues by supporting private investment in rail infrastructure that benefits the public as part of 3C. Similarly, pipelines, electric utilities and other infrastructure networks should be integrated into 3C based on their willingness to financially support the program.

Performance

The national and systemic scope of 3C requires clear leadership from the federal government in the development of an integrated system focused on freight movement. In the current federal highway and transit program, the leadership responsibility is primarily centered in state and regional transportation authorities. While states and localities must be active partners in the development and financing of 3C, increased federal oversight and direction is necessary. As 3C users will be asked to financially support this network with the promise that it will yield improved reliability and efficiency in the movement of goods and services, these users must be provided concrete assurances the benefits will be delivered.

The federal government's role in the administration of 3C should be to ensure the integrity of the system's infrastructure is developed and maintained in a manner that yields a level of service classification of no less than "C." Roadways with a level of service of "C" are described by FHWA as "in stable flow zone, but most drivers are restricted in the freedom to select their own speed." This type of minimal requirement—which the federal government should assure—is provided on projects receiving 3C funds, and also offers system users with tangible evidence of the potential return on their investment.

This commitment to a specified level of service in conjunction with the identification of the 3C system would also provide the general public with a clear and specific vision of what the program would deliver. Consistent with this goal, a major tenet of 3C should be the distribution of funds based on merit and a definitive policy against earmarking funds for projects that do not meet the criteria described above should be established.

Project Delivery and Environmental Commitment

It should be recognized the delivery of the benefits promised by the 3C proposal requires more than defining a system and providing a source of revenues. It is essential that in the administration of 3C the federal government seek to ensure the timely delivery of projects to earn the necessary support from the public and the general business community. The amount of time it takes to complete surface transportation improvements is unacceptable and could be an impediment to delivering the benefits of 3C.

Recent legislation, along with other ARTBA recommendations, would provide the tools to ensure these projects are completed in a time sensitive manner while adhering to all existing environmental protections. To further this goal, 3C projects should utilize best practices in environmental design and construction techniques. Furthermore, 3C should demonstrate the surface transportation community's commitment to environmental stewardship by attempting to deliver projects and programs that improve not only transportation, but when reasonable and affordable, the natural environment as well.

Implementation Timeline

It is imperative for the 2009 reauthorization of the federal highway and transit programs to include a specific implementation schedule for 3C. The growth of domestic and international freight movement demands immediate federal action. The parameters for administering the 3C should be included in the 2009 reauthorization measure to demonstrate the federal commitment to this initiative. The remainder of the implementation of the program should follow the model established in 1991's Intermodal Surface Transportation Efficiency Act (ISTEA) for the National Highway System, where Congress directs the U.S. Secretary of Transportation to develop a system for its review and subsequent approval.

The U.S. Secretary of Transportation should be required to bring together a group of public and private stakeholders to identify the components of the 3C system within 18 months after the enactment of the 2009 reauthorization bill. This process should also include a cost assessment for adding new segments or upgrading existing facilities. At the same time these groups are working to identify the 3C network and its costs, a dialogue should be initiated about equitable freight-based user fees that could be imposed to finance the system.

After development of a proposed 3C system is completed, within the specified time frame, the Secretary of Transportation should present the plan to Congress for approval. A package of freight-based user fees, and any other necessary financing mechanisms, that would cover the identified costs of the system over a 25-year period should be submitted no later than 24 months after enactment of the bill. Congress should be required to approve legislation creating the 3C financing system within 36 months of enactment of the 2009 reauthorization bill.

While the vast benefits of 3C and its financing structure should be motivation enough to facilitate quick action on these measures, a specific penalty should be imposed to force compliance with these deadlines. One such action would be the withholding of funds for activities within the federal-aid highway program that have a role in the movement of freight (such as the Trade Corridor, Border Infrastructure, and Projects of Regional and National Significance Programs).

As this process moves forward, it is likely there will be an intervening period between when a 3C System financing mechanism is enacted and when the actual 3C System is developed. To ensure the public and elected officials see immediate benefits from the 3C program, any revenues generated in advance of the system being defined should be dedicated to either Interstate Highway System enhancements or alleviation of FHWA-identified commercial trucking bottlenecks. This interim strategy will ensure freight-related infrastructure improvements can be made while the 3C system development process is underway.

Transition Strategy

As 3C is being identified and a transition strategy is developed, there will likely be areas of potential overlap between the core federal highway program and the 3C system. Participants in the U.S. DOT-led public-private stakeholder outreach process should give consideration to which components of the core highway program are more appropriately carried out by 3C.

For example, the Interstate Highway System is a logical candidate for inclusion in the 3C network as it is the backbone of the nation's transportation network.

Consistent with the independent financing mechanisms proposed for the 3C and core programs, HTF revenues currently allocated to Interstate Maintenance (IM) might be redistributed to other core highway and transit programs, with IM being financed, along with Interstate Highway System capacity expansions, through the new 3C revenue-

raising mechanisms. This could provide substantial additional revenue for the remaining core programs.

Alternatively, Congress could decide to keep IM responsibilities and its current funding stream as part of the restructured core program and fund only Interstate Highway System capacity expansion and high-cost, major reconstruction projects through the 3C and its financing mechanisms. This same type of transition could occur for other parts of the core highway program deemed to be more appropriate for the 3C system, such as the trade corridor, border infrastructure, projects of regional and national significance programs, and portions of the National Highway System Program that are dedicated to freight movement.

If this type of practice were followed, a hybrid method of distributing 3C funds would likely develop. Funds for improving the Interstate Highway System would logically continue to be dispersed to the states by formula. Funds for current freight-related discretionary and other 3C activities would be distributed based on merit and a project's consistency with 3C goals.

Conclusion

The result of the 3C Program would be a national strategy for dealing with the growing challenge of efficiently and securely moving freight. This is a challenge that is about more than congestion, bottlenecks and delayed deliveries. It is about securing America's place in the global competitive market. The 3C proposal combined with upgrading and expanding the core highway and public transportation programs would provide a holistic federal strategy to ensuring the U.S. surface transportation system provides the predictability and reliability the U.S. and world economies demand.

Madam Chairman, other member of the Committee, our nation's surface transportation infrastructure network is at a crossroads. We are facing major transportation challenges in the short- and long-term. Existing financing mechanisms are failing to keep pace with growing demands not because they represent an outdated or ineffective model, but because of purely political externalities. The hard reality remains that, no matter how it is structured, a solution to the nation's surface transportation challenges must include additional investment. Transportation infrastructure improvements cost money and the longer they are delayed, the more they will ultimately cost.

The nation's transportation challenges, however, are not insurmountable. We must utilize all available options to meet these needs and the federal government must play a leadership role, not only in promoting alternatives, but in delivering tangible resources and direction to meet the nation's surface transportation needs.

Madam Chairman and members of the Committee, I appreciate the opportunity to testify this morning and would be happy to answer any questions you may have.

RESPONSES BY CHARLIE POTTS TO ADDITIONAL QUESTIONS FROM SENATOR CARPER

Question 1. Government usually divides transportation responsibility by mode. In the Senate, we have highways in this committee, rail and air in the Commerce Committee and transit atBanking. At the U.S. DepartmentofTransportation,each agency focuses on the movement of machines—trucks, trains, planes, cars and ships.

But I have found that people rarely look at travel this way. They just want to get from point A to point B, quickly, conveniently and affordably. Most of the time, they use multiple modes for one trip. Freight movement is the same. Businesses and consumers just want to receive their goods quickly, safely and affordably.

How do we break though this government stove-piping to ensure that we institute policies that facilitate smooth flow of goods (and people)?

Response. I agree with your observation about the unique nature of goods movement and how it doesn't fit the current structure of the Federal surface transportation program. In fact, I would take your analysis one step further. While the "stove-piping" of Federal policies and funds among modes of transportation you describe is certainly problematic for optimal goods movement, so, too, is the absence of Federal priority setting in this area. Providing near total autonomy to State and regional transportation officials, with respect to how Federal funds are invested, makes achieving national goals very difficult.

Freight, by its nature, is not constrained by the geographic boundaries of individual states. As you said, "Business and consumers just want to receive their goods quickly." They don't care how many donor or donee states a product had to go through to reach its end point, or if these states "got their fair share" of Federal dollars. Their only concern is whether or not the product was delivered in the most efficient and cost effective manner. Even though the structure of the current Federal surface transportation program is not conducive to maximizing goods movement, enabling interstate commerce—i.e., freight movement—is still a clear Federal responsibility. Without bold leadership from the Federal Government in this area, we can continue to expect a patchwork of freight projects in severely congested areas instead of a comprehensive approach that yields a true national system.

ARTBA is proposing to reform and restructure the Federal surface transportation program into two separate, but equal priorities:

- The existing Federal highways and public transportation programs to protect past investments in critical transportation infrastructure facilities and to provide regional mobility;
- A new "Critical Commerce Corridors" (3C) Program exclusively dedicated to building a national, intermodal goods movement network.

The details of the 3C proposal are included in ARTBA's written testimony, but the proposal calls for a national planning process that would tie together critical freight projects identified at the regional level. A separate planning process and programmatic structure, however, is not enough. To be truly effective, a freight program must have its own unique revenue source through freight-related user fees. This would ensure goods movement projects are not sacrificed for other surface transportation priorities and that existing highway and transit needs are not subservient to freight improvements.

This approach would not create another "stove-pipe," but rather it would alleviate state and local authorities from having to make a choice between moving goods and moving people. The structure we are advocating would ensure both these critical priorities are addressed through separate Federal initiatives and that the Federal Government is asserting its responsibility to meeting the national goal of maximizing the efficient movement of goods.

Question 2. Drivers are often frustrated by the presence of large amounts of truck traffic and truck drivers are severely impacted by heavy urban traffic in terms of lost time and lost fuel sitting in traffic.

How does the lack of transportation options for people movement, such as rail and transit, impact goods movement?

Response. Webster's New World Dictionary defines holistic as "an organic or integrated whole [that] has a reality independent of and greater than the sum of its parts." This definition is the embodiment of what a national transportation system must be and underscores the need for the Federal Government to ensure a holistic approach to the nation's transportation challenges is implemented.

The value of one state's road way network or one city's public transportation system is greatly diluted if it is viewed in isolation. Integrating these facilities into a national transportation network, however, can facilitate economic growth for a region, provide citizens with unimpeded mobility, and ensures national objectives,

such as public safety, are addressed. For example, a major metropolitan area with a successful public transportation system achieves more than just mobility for users of that system. Freight shipments to and from this area by highway are also greatly enhanced by the reduced roadway congestion facilitated by a successful public transportation system. As a result, businesses in that area and across the nation are more productive due to the opening of this market that is realized because of a local transportation solution.

While the importance o fa truly integrated surface transportation system cannot be overstated, a lack of options is not the root of our problem. The fundamental reason why the U.S. transportation network is falling further and further behind the growing demands being placed on it is that governments at all levels have failed to make adequate investment in the upkeep and enhancement to fall modes of surface transportation infrastructure. For example, the primary mechanism for financing highway and public transportation improvements at the Federal level—the motor fuels tax—has not been adjusted for 15 years. While some are attempting to claim the fuels tax is antiquated, expecting a user fee rate set in1993 to accommodate the prices and demands of 2008 lacks all common sense.

Yes, we need to make better transportation policy decisions and we need to seek new ways to meet our transportation needs. However, without increased investment from all levels of government, the nation's surface transportation challenges will continue to go unmet.

Question 3. We are dealing with limited funding for everything, certainly including transportation. Yet we have large maintenance and new capacity needs.

In terms of competitiveness, how important is funding the maintenance of our current road system and smoother intermodal connections? How much funding should go to maintenance as opposed to new capacity? Should new capacity be evaluated for how it will help or hurt the movement of goods?

Response. The U.S. surface transportation needs are so voluminous that they cannot be approached from a "this or that" perspective. We are beyond the point of trying to balance competing needs. Rather, we must begin a path that provides a way to answer these types of question with "all of the above." In terms of goods movement, while additional capacity to eliminate a choke point may be necessary to ease freight shipments in one region, these shipments will also inevitably have to travel over existing roadways or bridges. Neglecting maintenance needs of these facilities in favor of new capacity will ultimately just shift the choke point to another location.

One of the major tenets of ARTBA's recommendations for the next surface transportation reauthorization bill is that both maintaining the existing transportation system AND enabling the safe and efficient movement of goods are critically important. We must dramatically increase investment in the core highway and public transportation programs to address existing maintenance challenges, improve regional mobility, and improve safety. The existing Federal motor fuels tax should be increased and continue to be devoted to these programs. According to the U.S. Department of Transportation's 2006 Conditions and Performance report, Federal highway investment must be increased by an average of $19 billion per year over the life of the next surface transportation reauthorization bill to maintain current physical conditions and traffic congestion levels.

The second component of ARTBA's vision for a restructured Federal surface transportation program is the 3C Program. This new federally-led freight program would add new capacity to ensure the reliable movement of goods and help maintain U.S. competitiveness in the global marketplace. Freight improvements would be identified at the regional level by all involved stake holders and Federal revenues for these projects would be generated from new freight-related user fees. While funds generated from these new revenues for the 3C program would be used exclusively for goods movement purposes, states are allowed to use core Federal highway funds for capacity needs. As such, states could still add capacity from their core program funds and this capacity would not be required to have freight benefits.

This type of structure would allow both capacity and maintenance needs to be fulfilled and avoids the "zero sum game" mentality that perpetuates the existing transportation planning process.

RESPONSES BY CHARLIE POTTS TO ADDITIONAL QUESTIONS FROM SENATOR INHOFE

Question 1. The triple C program envisions a new way of planning for freight projects. It is critical to change the current planning model to improve freight mobility? Al so, how will your proposed planning model ensure the appropriate projects are built to improve freight mobility?

Response. The existing Federal transportation planning process has served the nation very well and should be continued for a significant portion of Federal surface transportation activities. The last three Federal surface transportation reauthorization bills have greatly elevated the role of State departments of transportation in deciding how to use Federal highway funds. While it is entirely appropriate for states to be the prime decision makers for projects within their own borders, the movement of goods is not constrained by the geographic boundaries of an individual state and often times will travel through many states to reach a final destination. Accordingly, freight improvement projects will likely have benefits that accrue outside an individual state and many of these projects are regional in nature. As such, freight projects are frequently not among the highest priority for an individual state—even though they may have major regional or national benefits.

The 3C Program envisions a process by which states, shippers, the Federal Government and other relevant stake holders develop a national freight plan. This type of process would include much broader stakeholder participation than the existing transportation process and is reflective of the type of input needed to develop an effective freight strategy. The trucking industry, general business community and logistics experts have significant expertise that must be harnessed to maximize the movement of goods.

Furthermore, the 3C proposal calls for new freight-related user fees to be generated to finance this new national program. This dedicated funding mechanism is essential to ensure goods movement projects are a national priority and provide certainty that a national goods movement network will be developed. The existing transportation planning process allows states great discretion over how Federal funds are allocated. It is imperative, however, for the shipping community to have confidence the new freight user fees would not be diverted to non-freight projects. Only a separate process devoted to the new national freight network can achieve this goal.

By involving relevant stakeholders in the public and private sector, the 3C planning process would identify goods movement impediments and develop solutions. This process would begin at a regional level, utilizing the already established AASHTO regional divisions, and these solutions would bubble up into a combined national plan. While the planning process would identify these solutions, the 3C enabling legislation would set criteria for project eligibility and establish performance standards that must be achieved for projects financed with the 3C program's new freight user fee revenues.

As such, the existing transportation planning process should continue for the core Federal highway and public transportation program, and a new process should be utilized for the 3C Program.

Question 2. You are calling for the creation of a new Federal freight program. What kind of projects would be funded under your proposed Critical Commerce Corridors Program?

Response. There are a wide variety of improvement projects that can ease the flow of freight and all should be eligible. Logical inclusions for this program would include:

- Projects on the InterState HighwaySystem
- Truck only lanes
- Bottleneck relief
- Intermodal connectors and intermodal projects
- Freight exchange centers
- Technology applications and upgrades

While these are just examples, the 3C Program planning process would bring together public and private sector stakeholders under the leadership of the Federal Government to strategically identify the specific freight solutions needed on a regional level to ensure the safe and reliable movement of goods throughout the Nation.

Senator BOXER. Thank you, sir. And I think your Critical Commerce Corridors program is really very clever because it does capture what we are facing, and I really appreciate that.

Mortimer Downey, Chairman, PB Consult, on behalf of the Coalition for America's Gateways and Trade Corridors.

STATEMENT OF MORTIMER L. DOWNEY, CHAIRMAN, PB CONSULT, ON BEHALF OF THE COALITION FOR AMERICA'S GATEWAYS AND TRADE CORRIDORS

Mr. DOWNEY. Thank you, Chairman Boxer and Senator Inhofe. It is a pleasure to be here today on behalf of the Coalition. You have our written testimony and you see on the masthead that this group represents a wide variety of public and private entities with a concern for the effectiveness of our freight system.

Michael has certainly laid out for us what the challenge is in terms of the changing flow of goods and key issues in terms of congestion and delays and bottlenecks within that system. It is music to our ears to hear that in the next authorization bill goods movement will be an important part of your thinking. We want to help you with that. If we don't deal well with that problem, we really are creating more and more congestion, and the environmental problems, the energy problems that come with that, but we are also adding to the costs for American consumers and we are adding penalties in terms of competitiveness for American exporters in terms of moving goods in this new world economy.

Despite everyone's agreement that this is an issue we should be addressing, there is not yet a consensus about how to do that, but I am sure such will evolve; a way to both design funding and design programs that will be tailored to freight and will do more for this issue than we have been able to do in the past with the existing highway and transportation programs.

We also recognize that the challenge for you is a tough one, given the fact that existing revenue sources are, at best, stable, perhaps declining, with the current shortfall in the Highway Trust Fund a real indicator of an imbalance between our resources and our needs. It is our view, as a Coalition, that we must deal with both sides of the issue in looking at the future, a revenue side with a form of freight trust fund or some other form of dedicated account that would raise funds that will benefit the freight system and that will be used only for that purpose, and also with programs that will be designed to make improvement in the freight system.

In our written testimony we have laid out some principles we think should be followed with respect to both revenues and programs. Our belief is that the raising of funds should be in a way that has the user and the ultimate beneficiary of the freight movement paying for it, assessing in terms of benefit with a variety of different charges so that no one entity is carrying an excess portion of the weight. The funds should have predictable, dedicated, sustained revenues because they will be supporting long-term capital investments; and it should be firewalled, as Charlie said, in order to be sure that it will be used for its purpose.

In terms of program design, it will be important to be able to support a variety of different projects. Some will be large, some will be small; some will connect a number of States, some will be located in individual metropolitan areas. I think the design will need to be more project-focused than our existing systems, or I think that can be done. There will need to be an overall planning process to design a system that works, to design a system that is in fact multi-modal. I think, in the words of the Transportation Policy Commission that reported earlier this year, it should be mode-neu-

tral and performance-based. We really have to have something that works.

We would draw to your attention—I know you are familiar with it—the Projects of Regional and National Significance Program that was part of the last authorization bill. Within that legislation there was a requirement that the Department of Transportation, my former agency, is now exercising, which is to create through a rulemaking process a method of criteria-based, performance-based, selection of projects. We hope that DOT will complete that effort before a new authorization bill comes forward.

In terms of a freight trust fund, there are a variety of ways that such a fund could be provided with money: motor fuel user fees, particularly related to those who are moving freight; vehicle fees are a potential; indirect user fees; perhaps a value added tax or a bill of lading tax on the movement of goods; collection of fees against containers; or longer term approaches that might relate to the savings of fuel costs and energy costs through more efficient use.

We don't have a single answer; I think the outcome of the debate will be a mix and a variety of potential sources. But if we look then to the benefits that will be achieved and the problems that will be averted for the users of the freight system, we are hopeful that there will be consensus on moving forward in a way that relates projects to need, relates funding to projects, relates funding to beneficiaries, and allows for both the public sector and the private sector to be participants in this system. Many of the benefits, in fact, do flow to the private sector and the private sector can be a part of the funding system.

But dealing with the issue overall is an important matter for quality of life, for the strength of our economy, and for relating 21st century America to its place in a 21st century global system. We certainly look forward to working with you over the next year to design a way to move forward on something that in fact is a national priority and will add a strong national reason for legislation and for Federal activity in an area that really affects all of America. So thank you for inviting me this morning.

[The prepared statement of Mr. Downey follows:]

Coalition for America's Gateways and Trade Corridors

Written Submission of
Mortimer Downey, Chairman
Coalition for America's Gateways and Trade Corridors

Before the Committee on Environment and Public Works
Unites States Senate
on
Goods Movement on our Nation's Highways
Thursday, May 8, 2008

The rapid and cost efficient movement of goods throughout the U.S. supply chain, and particularly through our trade gateways and corridors, is vital to securing America's economic future and maintaining our competitiveness in world markets. Trade, as a percentage of the U.S. GDP, has been steadily increasing during the past quarter century, rising from 13% in the 1990s. Today, it is 30% and it is expected to grow to 35% in 2020 and to as much as 60% by 2035. Many factors, including enhanced logistics systems, improvements in manufacturing processes and new technology are placing an ever-greater strain on the capacity of our goods movement transportation network. Failure to respond to these strains will put a damper on our economic growth.

Freight movements, whether by rail, truck, ship or air, are a crucial link in the $7 trillion commodity flow fueling the U.S. economy today. The chokepoints that are developing along the nation's highways only tell a fraction of the story. That strain on capacity is being felt along all of the nation's major gateways and trade corridors. Congestion on these facilities is not only an environmental disaster; it serves as a trade barrier as well. Manufacturers and agricultural producers across the nation depend on this infrastructure to get their products to international markets. American businesses and families rely on the goods movement system to bring products to their shelves and homes.

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Despite these compelling figures, we do not have consensus around a national freight plan or a coherent program to document, anticipate and provide for our economy's goods movement needs. Infrastructure that was adequate in the first half of the twentieth century is still being relied on today, with some facilities utilized well beyond design capacity, while others are no longer as useful in today's economic patterns. State Departments of Transportation and regional transportation planning authorities are scrambling simply to meet the maintenance demands of our existing system, while the declining federal funding source – the motor fuels tax – will fail to cover currently authorized spending as early as 2009.

Before a solution can be developed, we have to think about the problem differently, as a nation. It is not merely the highways that trucks drive on – though those do play a very important role. It is also the ports and border crossings, the rail lines, the intermodal connectors, and the local roads that handle the final delivery. It is less an issue of modal competition—rail vs. truck vs. barge—and more an issue of modal interdependence. We must focus on the system as a whole, rather than viewing the nation's transportation infrastructure as several different systems that occasionally interact. We must see the entire network, interacting and interdependent. Only then can we begin to discuss real solutions to the issues this nation faces.

Critical to any effective solution to the goods movement problem is the establishment of a dedicated federal fund, such as a Freight Trust Fund (FTF) or similar *dedicated* account, whose revenues are predictable, sustained, firewalled from other uses, and committed to infrastructure that enhances the movement of goods. Although our thinking on such a fund is still evolving, I would like to identify the principles that should drive decisions about the FTF, some thoughts as to how funds might best be used, and some suggestions about the potential sources of revenues.

The FTF should be comprised of existing and new revenue sources. While some of the traditional Highway Trust Fund sources might be allocated, additional monies must come from beneficiaries of freight infrastructure improvement and be based on the following principles:

- The price of goods should support and internalize some portion of the cost of expanding related infrastructure, such that growth in demand for moving goods delivers proportional funding for related infrastructure improvement.

- All potential funding mechanisms and sources should be considered and fees assessed on user benefit.
- FTF revenue sources should be predictable, dedicated and sustained.
- The FTF should be financed from a wide variety of user fees, so that no one user group is disproportionately affected, with the recognition that the consumer is the ultimate beneficiary.
- Funds should be available to support projects of various size and scope, but with special priority for projects of national significance.
- Funds should be available to support multi-jurisdictional and multi-state projects selected on the basis of their contribution to national freight efficiency.
- While the current federal gasoline tax should continue to be dedicated to the traditional core programs, a small percentage of any future increase in the gas tax should be dedicated to the FTF, reflecting the real benefit to the driving public from freight projects that relieve highway congestion. Certainly, the federal fuel taxes should not be reduced, for any duration of time.
- Fund distribution should be based on objective, merit-based criteria, with higher-cost projects subject to more stringent evaluation than lower-cost efforts.
- Long-term funding should be made available in a manner similar to the current Transit Full Funding Grant Agreements to ensure that once a project is approved, funds will flow through to completion.

In practice, the FTF should be established either as a separate entity or as a dedicated, firewalled freight account within the HTF to collect fees, retain unexpended balances and liquidate annual appropriations, in order to give assurance to those who pay into the fund that it will be fully used for the *designated* purposes.

Overall, FTF funds for support of major freight investments should be distributed in a manner consistent with the process and procedures detailed by the Congress in SAFETEA-LU for Projects of National and Regional Significance (PNRS). Assuming Congress keeps the PNRS program in the next reauthorization and does not earmark the funds, the PNRS criteria, currently the subject of an administrative rule making, would serve as a formula for discretionary allocation.

Finally, with respect to sources of funding, FTF contributions should come from a variety of independent new sources to supplement existing revenues in a way that will fairly share the burden of cost for system development and maintenance among users/beneficiaries commensurate with their use of facilities. All users of the freight transportation system should be required to contribute to the FTF. Revenue streams should also be as diverse as practicable to ensure FTF income is resistant to economic cycles and will grow to keep pace with demand for infrastructure and inflation. At least four types of revenue sources should be considered to provide the equitable, diverse and stable revenue stream necessary:

- **Motor fuel user fees** – gasoline, diesel, alternatives including gasohol, biofuels, and railroad fuels;
- **Direct vehicle fees**, such as new registration, use and sales;
- **Indirect user fees,** such as dedicated national sales taxes and proxies based on cargo weight or value such as bill of lading, cargo facility charges or freight consumption fees; ports that don't need harbor maintenance could be allowed to redirect harbor maintenance tax receipts collected at their ports to the FTF; customs fees are generated by trade and applying a portion of these monies to support the infrastructure necessary to conduct that trade is a logical and fair use; and,
- **Longer term fees** established to offset reductions in fuel taxes as consumption moves away from gasoline and diesel, including carbon emission fees, weight distance taxes of all surface-based vehicles and other vehicle mileage taxes.

While the FTF would provide a dedicated source for freight project funding, participation in this program should not preclude projects from seeking funding from existing sources, reflecting the multiple benefits they can provide to local communities as well as to national freight movement.

Looking beyond the financing mechanisms immediately available, additional sources made possible by the phasing in of new technologies into America's transportation fleet may offer long-term solutions. Chief among these are ton-based fees and ton-mile taxes which have the added benefit of improved cost allocation.

These new revenue sources could effectively measure "freight consumption" in small increments and be incorporated in the consumer price of goods, reducing public opposition while concurrently removing modal biases and state-by-state equity issues.

At the state and local levels, federal policies should provide transportation planners with the largest toolbox of financing options possible to enable them to move freight projects forward as quickly and efficiently as possible. This is vital to support the development of local projects and connectors, in addition to the necessity of raising funds to match federal FTF monies.

Among the tools federal policy should enable are tolling of new facilities, innovative financing, private investment and public-private partnerships. Creative solutions are needed to increase capital sources. In addition, general fund allocations are an important tool at the state and local levels and federal FTF funding should be structured to incentivize and reward state and local investment.

Sustainable goods movement lies at the center of our quality of life, not only for the availability of consumer products, but because of transportation's impact on land use, energy consumption and environmental quality. Improvements to freight infrastructure can result in reduced congestion, better air quality, and less time and fuel wasted.

The anticipated acceleration of trade, combined with domestic growth, has created millions of new job opportunities and a higher standard of living for Americans. But these benefits will last only if we are able to keep moving the goods.

RESPONSES BY MORTIMER L. DOWNEY TO ADDITIONAL QUESTIONS FROM SENATOR CARPER

Question 1. Government usually divides transportation responsibility by mode. In the Senate, we have highways in this committee, rail and air in the Commerce Committee and transit at Banking. At the US Department of Transportation, each agency focuses on the movement of machines-trucks, trains, planes, cars and ships.

But I have found that people rarely look at travel this way. They just want to get from point A to point B, quickly, conveniently and affordably. Most of the time, they use multiple modes for one trip. Freight movement is the same. Businesses and consumers just want to receive their goods quickly, safely and affordably.

How do we break through this government stove-piping to ensure that we institute policies that facilitate smooth flow of goods (and people)?

Response. Senator, your point is well taken. People are most interested in the seamless trip that takes them from origin to destination at reasonable cost and convenience, and freight shippers have the same concern. There is a tendency toward "stove-piping" (what the various modal advocates might call "cylinders of excellence") and there is a real opportunity to overcome this in the upcoming legislation.

Some of this "stove-piping" is the natural result of affinity between the governmental interests (congressional and Executive) and the transportation modes they have responsibility for. But there is also the impact of statutory provisions and constraints. Often, even good intentioned efforts for better coordination are frustrated because of these provisions, which are written at different times, in different committees and without consideration of their intermodal impact. Attention to this in the next legislative round would be very helpful. It may be possible to harmonize some of the regulations and procedures, and perhaps also to give the Secretary of Transportation authority to take a flexible approach in the public interest.

I would be cautious about organizational changes at the USDOT, having tried that on two occasions (1979 and 1995) with remarkable lack of success. However, I would offer two suggestions. First, it would be helpful to update and reiterate the statement of national policy that was a part of ISTEA and not repeated in subsequent bills. Second, it is my view that the recent USDOT reorganization that downgraded the Office of Intermodalism (also a product of ISTEA) was not a good idea. The establishment of an Undersecretary for Policy has generally worked. Whether or not one agrees with the policies espoused, the Department has been thoughtful in terms of process and consistent in its advocacy. Reinstating an Office of Intermodalism at the Secretarial level would give the Department better leverage in terms of making policies operational and invoking better intermodal cooperation.

Question 2. Drivers are often frustrated by the presence of large amounts of truck traffic and truck drivers are severely impacted by heavy urban traffic in terms of lost time and lost fuel sitting in traffic.

How does the lack of transportation options for people movement, such as rail and transit, impact goods movement?

Response. This is another manifestation of our lack of comprehensive vision. With goods movement as an afterthought in the planning process, such conflicts are bound to develop. A broader view might offer differential facilities or prices for use of facilities to reduce conflicts. Optimal routings for goods movement don't necessarily have to be the same as those for personal travel. As an example, better rail connections and the availability of a short sea shipping option for the Ports in Newark and Elizabeth New Jersey could dramatically reduce truck volumes moving across the George Washington Bridge for access to New England destinations.

On the other side of the coin, better transit services in a region could open up highway capacity for truck movement, although the current narrow rules for cost-benefit analysis of transit projects don't give sufficient credit for such improvements affecting non-users.

Question 3. We are dealing with limited funding for everything, certainly including transportation. Yet we have large maintenance and new capacity needs.

In terms of competitiveness, how important is funding the maintenance of our current road system and smoother intermodal connections? How much funding should go to maintenance as opposed to new capacity? Should new capacity be evaluated for how it will help or hurt the movement of goods?

Response. The issues you raise need to be part of the debate not only in the upcoming legislation but in the national and regional plan development process that hopefully will follow. Maintaining and improving our current system has to be an integral part of both legislation and plans, and our funding sources need to reflect this. At the same time, we must recognize that the United States, unlike most other industrialized nations, is continuing to grow its population, and we must invest to accommodate and optimize this growth. The mix between maintenance and new ca-

pacity will vary region-by-region, and this needs to be taken into account in funding formulas and program structures.

When new capacity is under consideration, it should be put under careful scrutiny, on a modallyneutral basis, as to its impacts and benefits on a variety of issues, including impacts on goods movement. This should not be a process that serves to delay and diminish investments, but should be the basis for economic justification and even the attraction of funding to well-justified projects.

RESPONSES BY MORTIMER L. DOWNEY TO ADDITIONAL QUESTIONS FROM SENATOR INHOFE

Question 1. I In your testimony you advocate a new "Freight Trust Fund" funded outside current revenue sources. Do you think it's better to create a formula to distribute this freight money to states or to model a program on Transit's new starts full funding agreement model?

Response. I believe a well designed freight program will have elements of both formula and project-specific funding. The formula funds would assure wide participation, development of sound plans and planning capacity, focusing on smaller-scale improvements such as the "last mile" problems now plaguing our ports.

But there also needs to be a project-specific source of funding to accommodate the larger, "lumpy," investment needs. Such a program needs, also, to reflect the diverse nature of goods movement projects and the deep and positive involvement of private carriers in our freight system. The Transit new starts process offers both positive and negative precedents—positive in terms of careful review and integration of the projects, with involvement of both congressional and Executive agencies in a merit-based review, negative in terms of the long delays and the modal bias that is inherent in applying such rules to transit projects only. There are also lessons to be learned from some of the financing programs now in place at the USDOT. The ability to craft project specific finance plans, such as was done for the Alameda Corridor and for certain projects under the TIFIA loan program, is a good model for future diverse goods movement projects.

Question 2. As I mentioned in my statement, current funding levels for the highway program can barely maintain our current infrastructure, let alone address the challenges raised in the testimony we've heard today. Assuming that we do not increase the gas tax, what is the best way to fund a dedicated freight program?

Response. In my view, there is a need for additional broad based revenues to meet ongoing transportation system requirements, and this need is currently best served through the fuel tax. We recognize, however, both the constraints on that tax and the need over time to adapt it to a changing mix and efficiency of system users to maintain purchasing power.

This revenue source can be supplemented, however, by targeted contributions for goods movement investments coming from the beneficiaries of such investment through measures such as a waybill tax, port charges, customs fees, dedication of some fuel taxes on freight carriers or other related measures. Such charges are certainly not without controversy, but should be on the table for debate. Your committee could contribute to that debate by encouraging appropriate agencies such as the GAO and the CBO to evaluate and recommend an appropriate mix.

Question 3. Freight railroads have a key role in the movement of goods, but are owned and operated by private corporations. To make our freight transportation network best equipped to handle future freight patterns and volumes, our freight rail infrastructure requires investment levels far in excess of the capability of the Railroads. At the same time, they have considerable suspicion about government involvement in their business decisions. What are your thoughts on this problem?

Response. As you note, our freight railroads are firmly within the private sector and we should do everything possible to maintain that status. That said, we also know that the level of investment needed will be significantly higher than what the railroads are likely to be able to raise in terms of private capital.

The current proposals for investment tax credits, both for short line rehabilitation and for investments to increase system capacity is one way to bridge that gap. Such credits are a recognized tool for encouraging private investment at a somewhat lowered cost, with all of the decisions being made by owners in their economic interests, but with public benefits such as reduced congestion and energy use accruing to the public.

Beyond such credits, it is my belief that we will see more true public-private partnerships, with public funds going to provide for specific investment to meet broader social needs, such as capacity for passenger rail service in a freight corridor through joint improvement. Providing for such partnerships on a mutually beneficial basis should be a real opportunity to be taken up in this legislation.

Question 4. During the Questions and Answers portion of the hearing, I asked Mr. Potts about the negative perceptions associated with what some call the "NAFTA Super highway". Around the country, my State in particular, people are concerned that in many ways we may be losing our sovereignty by developing large transportation corridors into neighboring countries. Do you think these concerns are warranted?

Response. Based on my experience, I do not think these concerns are warranted, but recognize that such views are held. Since 1991 and the passage of ISTEA, followed by the congressional approval of the National Highway System in 1994, a process has been underway to redesign our roadway network to reflect today's economic realities. These realities include a significant growth in North-South goods movement brought on by the changing trade patterns under NAFTA. America's rail and highway networks traditionally devoted more capacity to East-West movements, perhaps reflecting our heritage as the frontier moved from Atlantic to Pacific.

But the development of 21st century capacity, both road and rail, to match a 21st century economy should not be seen as risking our sovereignty. The roads under consideration will still be controlled and regulated by the respective states. Development of this capacity and encouragement of its effective use will and should entail improved effectiveness of border facilities, including those devoted to better management of immigration and goods movement. Making this system work well in all respects should not be viewed as a risk, but rather as an opportunity.

Senator BOXER. Thank you, Mr. Downey. Thank all three of you. This has been really very helpful to me.

As Senator Inhofe and I and other members of the Committee, grapple with the future here, we really have issues. We know that the gas tax is dwindling for a number of reasons and our needs are growing for a number of reasons, and we do have to look at other ways to keep this Country the strongest economic power in the world, and that means a first-class infrastructure.

So I am going to ask you to be a little bit more specific, because I like what you have laid out here, all of you, which is looking at the whole picture and looking at a way that we can pay for a system that is top-notch, and doing it in a way that doesn't hurt any one sector.

And also, I would agree with you, Mr. Downey, that whatever we do has to be walled off so that it is only used for the purposes that the fees are paid for. That, to me, is absolutely critical.

So I would ask each of you to comment on how we get to fund our needs, because, as I see it, you have got heavy-duty commerce on one side. When I think about it, I think about Southern California ports, Long Beach and LA, where 40 percent of the goods come in and then they go all across everybody else's States, putting a lot of pressure not only on us, but all across America. So everybody has to deal.

So I would ask you this. If we think of it as heavy commerce goods movement on one hand and then the other uses I would call family travel, which I would look at as sort of a less of a strain because of different weights and all of that on our system. How do you see—for example, what if we were to say that we would use the gas tax for the family travel part, which is lighter needs, but then we would institute a series of user fees that wouldn't be overly burdensome? How would that work?

Mr. Downey, you talked about it. Would it be container fees that the importers would paid? Would it be a small fee on truckers? We hate to do that given what is happening now with gas, so how do you all envision this?

Mr. DOWNEY. It could very well be all of the above. I think you are correct, as well, to say that a gas tax collected in the way it

is now collected can be a fundamental part of our overall system, dealing with the broad base of maintaining the system we have out there and making it work well, dealing with many of the metropolitan issues. That might be supplemented by vehicle use fees in parts of the Country where greater capacity is needed or greater usage occurs.

But overlaid on those requirements is the movement of freight. And you have to look and say, well, who benefits? The ultimate consumer benefits, and we want to see a way in which the costs can be imbedded in what they pay. Exporters benefit. You want to be able to do the same for them. That could very well be raised through a form of freight free, either against the freight itself or by container, which might be a more manageable approach, since many times you don't know what is in the container, but you know it is getting the benefit of the transportation system.

Weight distance taxes, which have been used in some of the States, are a potential. Fuel fees, particularly focused on those who are benefiting in terms of moving freight, both the railroads and the truckers.

No one will be happy about this. I looked around, coming in the building today. The crowds of people surrounding the building to say put new taxes on weren't there.

[Laughter.]

Mr. DOWNEY. But all the people who will argue about the cost of the things they buy or the congestion on the roadways that they use are concerned about it, and I think we just have to educate that this problem will not be resolved unless all of the participants pay some small portion toward a better system that benefits all participants.

Senator BOXER. Mr. Potts, Mr. Gallis, anything to add?

Mr. POTTS. I would like to just add a few comments. First of all, Mort has kind of laid out a lot of the funding possibilities. One single thing is not going to fund this transportation network, and I think everybody recognizes that. The other point that he made, and I think we should keep that in mind, is the delivery system that we have in this Country, whether it is for getting from our house to the grocery store or deliver us to school or the freight we get, everybody benefits from that, so everybody should share in paying for it at the same time. But I think it is something that, as we move forward, we need to explore all the possibilities.

You are also correct, I think a part of this Critical Commerce Corridor and freight system is dedicated truck lanes, which can be designed and built to different standards than those that are carrying primarily passenger cars. And also, which we have not talked about here but it is in the detail, transfer centers for bringing containers across the Country and transferring them to other modes of movement.

So I think that, as I had suggested in the short version, that we do this by region to pull up a national plan, and, in doing that, part of that is going to be addressing the financing issues too. But I do believe that we need to bifurcate the funding. We need to firewall for the freight and the core program must be protected. The vehicle we are using right now is motor fuel excise tax, and I still think

that will be the primary way of funding that particular program for the near term.

Senator BOXER. Mr. Gallis, anything? And then we will turn to Senator Inhofe and then Senator Barrasso.

Mr. GALLIS. I think your question reveals the very core of the problem we are struggling with. I like to envision a triangular matrix, and along one side we talk about the shift in the U.S. economy from manufacturing to service and the demands that puts on the economy. The second side would be the scales of movement. As you were talking, there is a global scale by which goods move around the world and enter the United States. The second scale is continental movements within the United States once it is here; third is super-regional. You are talking about Southern California, Arizona, that whole zone; you are talking regional; and then you are talking local. For most people, the transportation problem is the ride to work. That is a local movement, it isn't the global movements of freight. And as we shifted to a service economy within a global economy, more manufacturing moved overseas into new locations. That is part of what this diagram shows.

As that took place, then the freights entering through the ports, but our service economy is based here, moving outbound. It is also globalized. So thinking of global movements, what do those do to our system? What is the continental movements, the super-regional, regional, local? Those are all different kinds of movements involving combinations of freight and passengers moving in different kinds of directions.

That is putting pressure that even where we are doing projects in Detroit, their system wasn't set up for the kind of manufacturing in the 21st century——

Senator BOXER. But my question was who pays to make it work.

Mr. GALLIS. Oh, OK. Well, given that complexity of that, the pay is this. Where is the money in the world today? Because there are two, there is capital expenses and operating expenses. And I think we need to distinguish. There is hundreds of billions of dollars of equity, but most of the growth in the global economy has ended up both in sovereign funds and private funds, by which we are looking at huge mountains of private or national equity looking for places to go, where our own budgets are under stress.

Senator BOXER. Yes.

Mr. GALLIS. So I think we have to begin to think about how do we apply capital—and often times it can be private capital—in a public good. Is there a way to do it, an effective way? I don't think we have captured totally the revolutionary moment we live in and the changes both in capital structure and financing, the changes in kinds of movements and the shift in our economy.

Senator BOXER. So you are saying highway bonds is what I hear, because that would attract that kind of capital.

Mr. GALLIS. It could be a mechanism. I haven't seen them yet worked out.

Senator BOXER. Well, we do it in California every day of the week, but, anyway, let me turn to Senator Inhofe.

Senator INHOFE. Thank you, Madam Chairman. Let me do this. I have someone I have to say hello to. I would like to defer to Senator Barrasso and then, when I get back, Mr. Gallis, both Senator

Barrasso and I were on the floor and had to make statements, so we are a little bit late getting here, so I want to ask you a couple of questions about what you are showing up here. I will be right back.

Senator BOXER. Good.

Senator BARRASSO. Thank you, Madam Chairman. I appreciate this opportunity to visit with the three of you. In Wyoming, in the State Senate, I was the chair of our transportation committee. I am very focused and interested in all of these issues. Wyoming is obviously one of those very large States with very few people, half a million people, 100,000 square miles; about five people per square mile. But, yet, the national commerce relies on Wyoming for I–80, the interState running around the center of the State and then running the lower portion of the State east to west, and then we have a north to south route, I–25.

Much more truck traffic on I–80, significant damage to our interState routes as a result of that, whether it is from Portland, Oregon or Los Angeles, things coming from our ports, then they come to a pinch point in Utah where those roads come together, gets onto I–80, and then every one of those trucks heading east goes right through the southern portion of Wyoming, does a significant amount of damage to the roads, not by Wyoming drivers, clearly, but by playing an important role in our national commerce.

So the question for all three of you is how do we as a Nation deal with that funding? The State of Wyoming has stepped up, put more State money in the last several years into highway funding, but they are not going to be able to do it; there are just not enough people there, living there. The distances are so vast, but the needs are real and the benefit is to all the people of America.

So I don't know if you want to start, Mr. Gallis, and work down, either way.

Mr. GALLIS. Clearly, the funding mechanisms and planning processes have focused on individual States and have not recognized the flow diagram that takes place across the State and how that is occurring. Your State, as you point out, occupies a key point between the northwest and the midwest and, therefore, that flow diagram across it, but you get an allocation based on population, area, etc. It doesn't recognize that. Every State has that same problem. New Jersey, goods come into the Port of New York. New Jersey feeds 52 million dimension markets in the northeast, but they get an allocation on a State basis.

We haven't recognized this overlay of the global and continental scales, and how to fund that overlay that every State has a differential amount of that pressure put on them that is not funded in the normal formulas; and I think until we have a framework that demonstrates that—and, as you say, this corridor has more than that corridor—and that is everywhere in the Country and that is the Critical Commerce Corridor issue—should we create a policy framework within which we recognize national global movements as an overlay on the local system? And that is the importance of the scale issue.

Senator BARRASSO. Is someone working on that this you know of right now?

Mr. GALLIS. I don't think so.

Senator BARRASSO. But there is a need there, Madam Chairman, we just heard.

Mr. POTTS.

Mr. POTTS. But I think Michael has touched on the issue, because it is one of the things that needs to be addressed, and by firewalling a funding mechanism for freight movement and bifurcating the program, you would have a distribution for the commerce corridors that, as those projects qualify, then that is how you support them.

I agree with you totally, the demand on those kinds of systems and the loads that are put on them our normal funding system, and in a lot of other States besides Wyoming, could not carry that kind of load. But everybody benefits from it. And if you went all the way back to 1956, some of the same debate was going on with the interState system because at the time it was built there was certainly not the same distribution economically that you should see on the map today, there was a disproportionate amount in other areas, and at the end of the day it worked well.

The fact that we have to remember in this is talking about the tremendous growth in traffic in the last 25 years with passenger cars going up 225 percent, trucks 550, and capacity only up 6 percent, and then saying it is going to double in the next 25 years. The reality of it is unless we do something else like the Critical Commerce Corridors, it can't happen, because the system today is already at capacity, so you are going to have to change our whole mind-set. And a State like Wyoming that carries the corridors that it has, those are critical commerce corridors coming from coast to coast.

So I would agree with you totally that it is an issue that must be addressed, but I believe that in our written description of how you go about it, by bifurcating the program and firewalling the freight component, that you can address it through the same kinds of formula systems we have done before.

Senator BARRASSO. Thank you.

Madam Chairman, my time is up, but in the absence of Senator Inhofe, would you mind if I ask Mr. Downey to——

Senator BOXER. Go right ahead, Senator.

Senator BARRASSO. Thank you.

Mr. Downey, would you mind commenting as well?

Mr. DOWNEY. I would be very happy to. At a recent conference that our Coalition sponsored, Wyoming DOT was there and laid out the future for I–80, and it is a pretty bleak future. They projected that with the growth of truck traffic moving goods across the Country, with the cost of keeping that roadway in good condition, this could eat the State's entire highway budget within a relatively short period of time.

I think there are two responses we really need to look at. One is providing national support, in a way that Charlie spoke of, that allows a spreading of the money to the places where the need is greatest, not simply sending it back to the places where it was raised; and in the case of freight, that will give that opportunity to fund and support a national system.

It may also be a necessity for States like Wyoming to impose tolls on their facilities. I know they have a study underway at the

moment to look at that. Currently, such tolling that is almost impossible under Federal law. And I think it may also be useful in reauthorization to look at those constraints and say if the need cannot be met through a national program, we certainly should not impose it as a burden on a State; we should allow a State to fund its own system, and that could attract the kind of capital that Michael was talking about in terms of investment. So I think we have to come at it from both ways.

Senator BARRASSO. Especially if you are looking to try to go to a third lane or different options, and not just repair. But if Nebraska wants to go to a third lane and Wyoming doesn't, it is the same truck traffic, it just goes all the way through. So you want to avoid bottlenecks, pinch points and the same. So anything that slows down the commerce isn't helpful to our economy.

Thank you, Madam Chairman, for the additional time. I appreciate it.

Senator BOXER. Senator Inhofe.

Senator INHOFE. Thank you, Madam Chairman.

Let me start off with you, Mr. Gallis, since we were not here when you—you brought your laptop, and I want you to put it to use here and kind of explain what it was, if the Chairman would excuse the redundancy here.

Senator BOXER. Go right ahead.

Mr. GALLIS. This diagram was constructed for the purpose of trying to demonstrate some of the new flows that are being emerging after a global economy. It was constructed out of discussions with the auto industries in Detroit, Chicago, the northeast, New York, New Jersey, et cetera.

What it shows, the red line going vertically down is something that is talked about as the NAFTA corridor. It is not a corridor of highways, it is a corridor of trade largely driven by the auto industry and has become the industrial backbone of North America. It starts with auto engines and parts in Mexico and it terminates in Toronto and London at the northern end with also specialty parts for the auto industry moving up and down this tremendous corridor with textiles entering in the southeast. That is the vertical line; goods go up and down, move out.

The two yellow lines are the traditional north-south lines, but what is important to notice here is Chicago and Memphis. What has happened is traditionally we had four transcontinental hubs down the center of the United States—Chicago, St. Louis, Memphis, and New Orleans. What is happening is, because of the amount of goods flow, you would think there would be more places, but it is not.

To simplify the management structures, the industry is concentrating around Chicago and Memphis; and, of course, you have Atlanta and Dallas also in the southeast. But what is happening is, in this consolidation, it is also consolidating around the ports, where the growth is going to take place. So what we have is the continental scale movements driven by the global trade patterns.

Now, I have given you an example of what pressure that is putting. As the Senator just spoke, it is not only moving across his State, but Chicago, for instance. Our whole system was set up midwest, agriculture and manufacturing outbound. All of a sudden we

have ports inbound. The whole flow diagram just reversed on us. Chicago was set up with rail yards all around the outside. There is no throughput on a rail. Suddenly they have to move through Chicago. The Southern California Alameda corridor is not big enough already. New Jersey has a Portway program. This is what is driving.

So what we show here is the Los Angeles ports. Already, this year it is about 12 million containers, projected to go to 40 million. It is impossible. Then we see Seattle growing, New York growing. When you normally see it, you get port data, but you don't get the corridor data connected with the port. And when you see the corridor, as you spoke about Los Angeles doesn't serve Los Angeles, it serves the whole continental United States. So it isn't only what is happening at the port, but the big corridors moving across, where it hits at other metropolitan areas of the United States. This is the overlay.

And I contrasted that with this, because this is congestion, you know, the projection of congestion. And if you just throw money at the red, Senator Barrasso's State would never get anything because his corridor, while it shows up in this diagram, does not show up here. So if we just chase—I call it chasing the red, then we hand it to the States and say do the best you can, but those projects don't add to this.

And that is where we have to, I think, in the allocation formulas that were always based on States within a national policy framework, you actually have a bifurcated funding mechanism, one that is dedicated on the regular allocation, traditional States; the other one is a national application that recognizes these change. This is what is driving business crazy—whether it be in Detroit, Los Angeles, New York—is this is not working.

As Sealand Maersk said to us when we were trying to do the big picture vision for the United States, they said we work around the system, not in the system, and if that isn't the bottom line of where we are today——

Senator INHOFE. OK.

Senator BOXER. I am giving you another 5 minutes.

Senator INHOFE. OK, that is fine.

Mr. Potts, of course, you are coming from the road side of it here, but I assume that we are all talking about intermodal and we are all concerned about moving freight, and it has got to include all of the above. And I made a brief comment about the barge traffic, and there is a place for everything, rails included.

Two of you have referred to the corridor there. Are you having problems dealing with the negative that is out there, the misunderstanding, somehow there is a conspiracy that these corridors are—that we are losing our—anyway, do you deal with that? Has this been a problem as you are developing these things, people complaining that somehow we are losing our sovereignty through these corridors? If you don't hear it, I am surprised, because we sure do.

Mr. POTTS. Are you asking me?

Senator INHOFE. I am asking anyone. Probably you, Mr. Potts, because they are talking about going through my State of Oklahoma. A lot of them are talking about the NAFTA corridor as if there is something negative there. I just wondered if——

Mr. POTTS. No, I think it is a good point. In responding to that, I would also like to comment with Senator Barrasso. All the discussion we are having is making the key point that we do need a national plan for freight and we do need a strong Federal leadership, or it is not going to happen.

Now, as part of my previous life I spent 16 years in a DOT, and I have met with the AASHTO leadership and talked to those fellows, and some of my very good friends from Oklahoma also, and any DOT, first, has got to look after their own State. But when I referred to the regions and developing a regional plan, what I was referring to is basically using the five AASHTO regions that exist right now and roll those plans up from the group of States, because they all recognize that our competitive position does not stop at their border.

Senator INHOFE. OK, I understand that, and I probably shouldn't even have brought this up, but this is a problem that we deal with in Oklahoma, and I know in Texas it is quite a thing.

Now, on the firewalls we talk about, or the walls—the Chairman mentioned this—this is really difficult to do because we are talking about getting into some type of innovative funding mechanism that is different than what we have been doing since the Eisenhower Administration. And when you do that, you folks are addressing freight movement. Now, we have all the rest of the movements going on at the same time. Have you given a lot of thought on how you actually do that? I know there could be dedicated corridors and all of this, but are the walls a serious problem, as you look at the overall picture?

Mr. DOWNEY. I would say they are in terms of getting support for making the investments, asking people to pay with some assurance that they will see what they get. When the Highway Trust Fund was created, the Eisenhower legislation, there were no such firewalls.

Senator INHOFE. Well, there didn't really need to be.

Mr. DOWNEY. Right. In the early years of the interState, in fact, they were short of money and additional taxes were added. But over time we developed a pattern in which funds were being raised and then were not being spent, and the credibility of the entire system was called into question. In legislation that passed in the late 1990's, we did impose the firewalls and really rebuilt credibility when the system put trust back in the Trust Fund, and we think that has been extremely beneficial. And I don't believe we will be able to convince others that they should be charged for the use of the system if they don't get the same kind of protection.

Senator INHOFE. Well, you know, in the short period of time we have all been here, we have seen it change. When I first came 22 years ago, there really wasn't this problem. In fact, I was on the House side, as was the Chairman, at that time, on the transportation committees. It looked like what was started back in the 1950's was going to continue to work at that time.

Now we have seen, in the last 10, 15 years, it is a serious problem. In the last few authorization bills that we have done, we have recognized that we are going to have—we even have a committee that is supposed to be—I am not real happy with their product, but is supposed to be looking at other ways of funding. Now that we

have this escalated cost of fuel, now it is a crisis and we have to do something to address it.

Now, we don't have the luxury of time right now, and I would ask the three of you to give some thought to this, to give an immediate response and maybe some thought and respond for the record. We are going to be doing our 2009 reauthorization bill, at least we want to do that, and I think this is where we are going to have to address this. So I don't think there is a lot of time to do a lot more studying. I think we need specific recommendations as to what each one of the three of you thinks that we should do in the 2009 reauthorization bill specifically for the freight movement problem.

Why don't you start, Mr. Downey.

Mr. DOWNEY. We have laid out some specifics in our written testimony.

Senator INHOFE. Specifically for 2009?

Mr. DOWNEY. Yes.

Senator BOXER. But highlight them for the Senator.

Mr. DOWNEY. We can provide those, but it is basically a mix of direct and traditional user fees. Perhaps some portion of what is now collected could be allocated to freight. Other ideas include additional charges through value added taxes or cargo facility fees or bill of lading charges, which used to be collected at the Federal level; or perhaps an allocation of some portion of customs fees that are now collected. Customs fees are continuing to grow and there is a history of some portions of those being allocated for other purposes.

But anything that will tie directly to improvements and benefits on the freight side we think should be considered. We would be glad to go further as we build some consensus within our Coalition for a specific. I think it would be also helpful if your committee would ask GAO and the Congressional Budget Office, with the analytical resources that they have, to evaluate some of these and to evaluate the impacts of them so that we are ready for the debate in 2009 that will have to happen.

Senator INHOFE. Well, I was saying to the Chairman that it wouldn't be a bad idea to get—I am really impressed with the three of you and your testimony—to maybe get with the committee that is supposed to be doing this, to get us prepared for 2009, because I think you have some really good ideas.

Mr. Potts.

Mr. POTTS. Let me clarify.

Senator INHOFE. Specifically for 2009.

Mr. POTTS. How to pay for it, is that what specifically? Well, of course, Mort has laid out a pretty good buffet list of things that are there, you know, bill of lading tax, rate mileage-based user fees, Federal custom fees, if we build—which we will build—transfer centers, entrance type fees for using those mileage tax on truck travel. Matter of fact, American Trucking Association has indicated a willingness to support a tax of that type provided it was firewalled and used for freight corridors. Public-private partnerships, as mentioned before, there are some positions that this would fit very well into. Custom fees and, where appropriate that it fit, there is the possibility to toll some of those corridors, too.

So I think to sit down and discuss it—I made a comment to some people earlier, it is like some of my business, acquiring companies. If you are trying to acquire a company and there is a deal to be made, somewhere on the table you will find it. This is something that we don't have that choice; we have to find the location on the table to pay for it and do it. And I think we can do it, but the avenues are available to us and it is just a matter of identifying those.

Senator INHOFE. Well, we do need to—I would almost say that we are passed the buffet and we are ready to order from the menu now.

[Laughter.]

Mr. POTTS. And I agree with you. I think it is just a matter of sitting down and seeing what are the best options in a particular location. It may be a little different as we identify the projects and how we pay for one, say, in Wyoming, as opposed to Oklahoma or California, but, nonetheless, we do the same thing with our core program, too, right now, actually.

Senator INHOFE. Is there time for him to respond to that, too?

Senator BOXER. Sure. Go ahead.

Senator INHOFE. Mr. Gallis, specifically for 2009.

Mr. GALLIS. I think Mort and Charlie have spoken directly to the funding issue, so I would like to speak to the issue you brought up and the perceptual issue, because I think that we have not addressed. Politics operates often not in the world of reality, but perceptions of reality.

Senator INHOFE. Really?

[Laughter.]

Mr. GALLIS. Just an observation. But I would say this. I would say this, that to me the biggest gap is there is a lack of alignment between the new realities in our transportation system and our funding mechanisms. I think we have to, in 2009, begin to talk about creating alignment between the new demands on the system and the funding—whether or not we are able to do it, we need to move toward that—that are driven by new global economic considerations.

So I think we have to start establishing a conceptual alignment that there are demands that didn't exist before, driven by our global competitiveness, that must be reflected in funding. Whether or not we can do it in 2009, I think we have to begin to talk about it and get it on the table so that people begin to become educated to that. I think that is one of our biggest barriers, the reality versus this perception.

Senator BOXER. Well, thank you, Senator Inhofe. I thought that was a really good line of questioning.

You know, as I think about this, I think that Senator Inhofe is right, we are passed the buffet; we are actually working toward the dessert, so we really have a problem on our hands. And the way I like to think about problems—because it helps me see the big picture—is to kind of separate out the different issues we are dealing with.

One is the safety and maintenance of our existing infrastructure, and this speaks to your point, Mr. Gallis. Things have changed. At one point in time in history that was enough. What is our existing

structure? How do we keep it safe and sound, and that is it. Well, obviously, there is more.

So it seems to me one source of funding could deal with the safety and maintenance of our existing infrastructure. Another source of funding, which I think would be the gas tax, because as I was speaking with your staff, the gas tax, we are running so low, we could probably do a good job if we just limit it to that, and not the new kind of projects.

Then I think there are enhancements to the basic system, which would be things like—that I love in my State—bike paths and HOV lanes, you know, enhancements to that, which could be another fund. And then the third one is I rather call it goods movement, because freight says to me somehow railroads. If we are talking goods, we are talking trucks, we are talking trains, we are talking barges, we are talking everything. So then the goods movement corridor projects I think is the third piece, and that is the one where I think we really need to be extremely creative in terms of how we fund it.

And I think, Senator Inhofe, if we did have a table and we did sit down with our colleagues, with the private sector, with the best minds we have, we are going to have to come up with something that makes sense; and I think if it is a little of this and a little of that, as long as it is put in a fund that is absolutely airtight—and we can do that, we can do that, I think—I think we are going to be OK.

But we talked about vehicle miles traveled as one way, and at first I thought, well, maybe we could get folks, you know, every year, when they send in their registration, I don't know, a penny a mile or pay a fee. I don't know if that is workable. I don't like the idea of people having some device in their car that Uncle Sam can look at every time to know when you are out and why you are out. I reject that and I think Senator Inhofe and I both felt that way.

But have you thought about how to do a vehicle miles traveled? I think Mr. Potts might have mentioned it in terms of truckers who put on a lot of miles, but how can we deal with vehicle miles traveled in a fair way that doesn't set up big brother is watching you kind of deal? Would it be at the time you register your car?

Mr. DOWNEY. It certainly would be difficult with respect to the auto, although a lot of people are looking at that and thinking perhaps this is the way to go. My view is it is many years off, until a lot of problems are resolved. It may be simpler with respect to truck movements. There is an important safety and security need and other needs to identify the movements the trucks are making, the number of hours that are being driven, the number of miles that are being carried, and that could be implemented much sooner than some nationwide system.

Senator BOXER. Interesting.

Mr. DOWNEY. And it wouldn't be welcomed, but probably it would be recognized as a significant improvement.

Senator BOXER. But let me ask about an alternative, and tell me if this is just too simple. That we simply ask the trucker and we ask the driver every year, when they register the vehicle, how many miles did you travel, and you just list what your odometer

said the year before and the next year, and then you can tell it? Why do we need all these fancy ways of doing it?

Mr. DOWNEY. I think a little more than that would be needed to really get serious answers. From my DOT experience, I know we talked many times about hours of service in truck movement. That is a voluntary system, where the truck driver fills in his log book on how many hours they have driven, and in the vernacular of the trade, they are known as the comic book. I am not sure you would get the kind of compliance on a voluntary basis that would work.

Senator BOXER. Well, that is sad.

Mr. DOWNEY. Yes.

Senator BOXER. Well, let me say thank you on behalf of all of us here. This has been very important. We have a long way to go, but we are determined to work across party lines on this, and I think Senator Inhofe and I have proven that. Except when it comes to the environment and it has to do with infrastructure, we really work very well together. So we look forward to calling on all three of you in the future, and I trust you will be there for us when we call. Yes?

Mr. DOWNEY. Be happy to do that. And I think if the perception is there that you are serious about this effort, lots of people will come to the table who now are sort of hanging out in the back and saying maybe I won't have to play.

Senator BOXER. Good. Well, sir, you can spread the word. We have no choice. Right now, I think we are $5 billion short. Is that right?

Mr. DOWNEY. For 2009, yes.

Senator BOXER. By the end of 2009, we could be $5 billion just for what we are doing now, and what we are doing now is woefully inadequate. So you are right, this is very, very serious. It is really a decision we have to make as a Nation if we really want to stay competitive and be able to carry forward, because I will tell you, at the ports in California people are just saying no more, can't take it, it is too hard, too hard on our breathing. So we need to figure out how to move this, do it cleanly, and this is our challenge. But we can do it because this is America, and we can do anything we put our minds to.

Thank you very much, everybody. We stand adjourned.

[Whereupon, at 11:03 a.m., the committee was adjourned.]

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