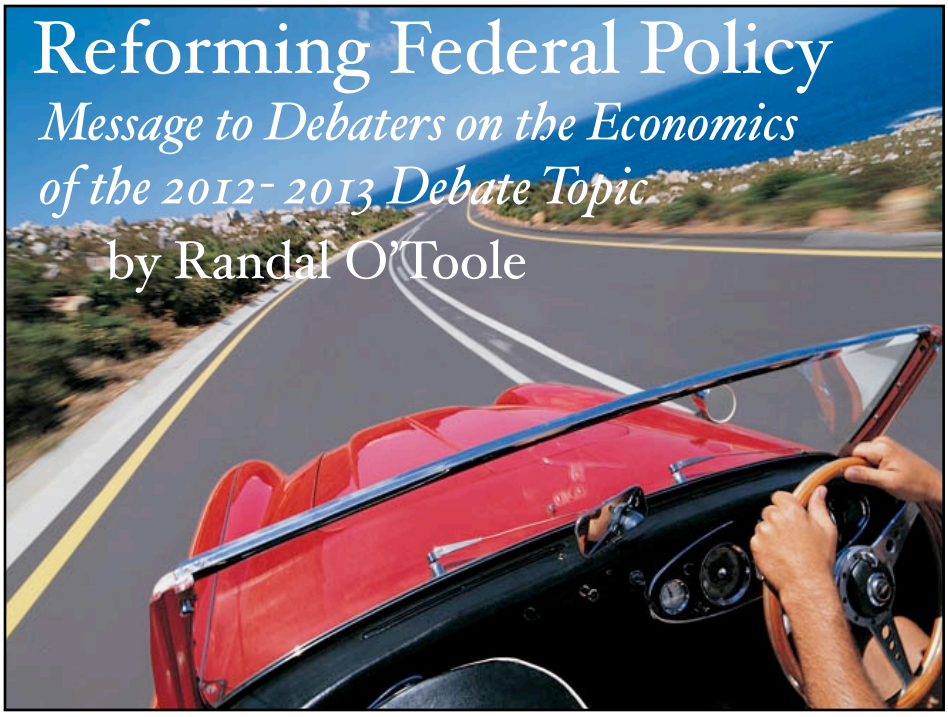
Transportation Infrastructure



Resolved: The United States federal government should substantially increase its transportation infrastructure investment in the United States.

This topic is really two different questions:

1. Should the United States substantially increase its transportation infrastructure investment? and 2. Should that investment be made by the federal government? The study of economics can help answer both of these questions.

Economists believe that the best incentives are created when users pay for the full cost of the things they use, and producers are allowed to profit from the things they sell. The prices people pay give them incentives not to overuse the goods while the profits producers make give them incentives to produce more or to find lower-cost ways of producing.

The fact that users pay the full cost show that they believe the things they use are worth producing. While some people view "profit" as a dirty word, the advantage of a user-pay system is that other people or businesses can only make a profit if they provide you with something you want at a price you are willing to pay. If you don't want it, or you are not willing to pay what they are asking, they don't make a profit, which gives producers an incentive to reduce costs and make things people do want.

The user-pay system can break down if a producer has a monopoly. Then they will tend to charge more for whatever they are producing, giving them huge profits but creating a shortage for the good. For example, the owner of the first New York City subway earned large profits from subway operations in the early part of the 20th century, but subway riders complained that the cars were overcrowded. The company didn't want to expand capacity because it would increase its costs without greatly increasing its revenues. Finally, another company was allowed to build a competing subway line and crowding declined.

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Economics?

Economics deals with the allocation of scarce resources. The term "eco" comes from the Greek word for house and the term "nomos" comes from the Greek word for management, and the first "economists" were household managers. Today, the term economics has expanded to include the management of resources from the local to the worldwide level.

Incentives

Perhaps the most important concept economists have learned is that *incentives count*. If you give someone direction to do one thing, but give them incentives to do something else, they are more likely to follow their incentives than the direction. Congress has often given government agencies incentives that conflict with their missions; the agencies soon begin to follow their incentives rather than their mission, a phenomenon known as "mission creep."

For at least a time, both companies were profitable, though not as profitable as the first company had been when it was a monopoly.

Another problem with a user-pay system happens when users are able to avoid paying all of the costs of the things they use (which is known as externalities) or when no one can be charged for using a particular good or service because no one can be excluded from using it (which is known as a public good). These will be discussed in more detail below, but for the moment, it is worth noting that government often intervenes in private user-pay systems to correct some of these problems.

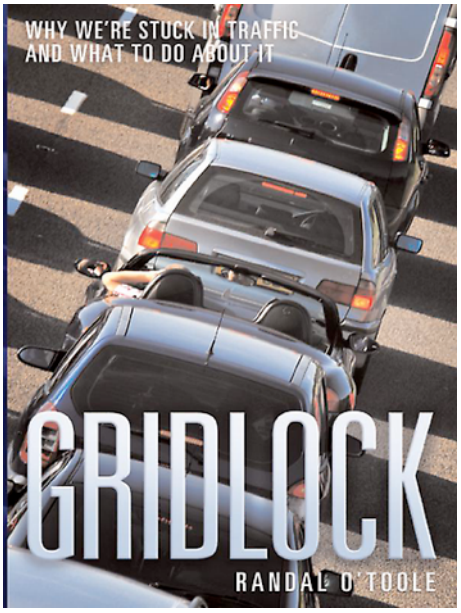
Government agencies are rarely allowed to earn a profit, so they can face very different incentives from private producers. While private businesses want to increase profits, public agencies want to increase their budgets, as a large budget is a sign of success. If the agencies are funded out of the user fees they collect, they may act somewhat similarly to a private producer. But if a large part of their funds come from tax dollars, then they will act very differently from private producers.

For example, the Interstate Highway System was funded entirely out of gasoline taxes, tolls, and other payments made by highway users. As a user fee, gas taxes are imperfect because, when you buy gasoline, no one knows whether you will drive on a state highway, a county road, or a city street. Still, they provided some feedback to highway planners: if they built highways that no one used, those roads would generate no gas taxes to pay for them.

In addition, Congress decided to build the interstates on a pay-as-you-go basis; that is, the roads would be built only as gas taxes were collected to pay for them. States were not allowed to borrow money to build the roads and pay back that money out of their share of federal gas taxes. This gave highway planners incentives to make sure that the interstates they built were, for the most part, needed by users who were willing to pay for them.

Construction of the Interstate Highway System was more-or-less completed in the 1980s. Instead of ending the gas tax, Congress decided to divert some of it to pay for mass transit. Initially, Congress allocated the funds to cities based on such factors as population and transit ridership, but said the funds could only be used for capital purchases, not operations. Many transit agencies, figuring that a big bus costs about the same to operate as a little one, responded by buying many large buses, with the result that many of the buses are nearly empty much of the day.

In 1991, Congress created new transit funds allocated through competitive grants. These grants were supposed to insure that the funds were spent as effectively as possible. In reality, transit agencies soon realized that the agencies that asked for a lot of money were just as likely to be funded as



those that asked for only a little money. In effect, Congress had given transit agencies incentives to develop the most costly, rather than the most efficient, transit systems they could.The political distribution of funds creates another problem. Elected officials like to be seen "cutting ribbons" for major new projects that are highly visible, such as new highways or rail transit lines. Maintenance is not as visible, so elected officials are likely to underfund maintenance. While state highways, which are funded mainly out of gas taxes and other user fees, are in fairly good condition, local roads and transit systems, that are funded mainly out of taxes, are often in very poor condition.

Incentives are thus key to both parts of the debate question. *How much* is to be invested depends on incentives: given the right incentives, producers will build and maintain the right amount of infrastructure. But given the wrong incentives, they could build too much of some kinds of infrastructure, or fail to maintain the

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Transportation Resources Online

- economicthinking.org/transportation
- stosselintheclassroom.org/videos/transportation
- reason.com/search?q=transportation

infrastructure that has been built. *Who* should build infrastructure also depends on incentives: government can build it, but it is more likely than private industry to get the incentives wrong, so it should be used only if private industry can't do it for one reason or another.

Benefit-Cost Analysis

While an understanding of incentives is needed to design the systems to produce and maintain infrastructure, to decide whether any particular piece of infrastructure is needed economists use a tool called *benefit-cost analysis* (or sometimes cost-benefit analysis). In essence, this tool is simple: all of the benefits of a project are added up and compared with all of the costs. If the benefits are greater than the costs, the project may be worth doing.

When the benefits are divided by the costs, the result is called the *benefit-cost ratio*; when the benefit-cost ratio is greater than 1, it means the benefits are greater than the costs.

In actual practice, benefit-cost analyses are not always so straightforward. For one thing, to be included in a benefit-cost analysis, all benefits and costs must be in dollars. There are some values, such as the value of a human life, that people might not want to translate into dollars, in which case a different kind of analysis, cost-efficiency analysis (see below), is appropriate.

A second problem is that analysts sometimes get confused about just what are benefits or costs. *Benefits* are things that people are willing to pay for. There may not be mechanisms for people to pay for some things, such as clean air, but economists can estimate what people are willing to pay for those things and include those values in a benefit-cost analysis. A little more obviously, *costs* are things that someone has to pay for.

Two different kinds of costs are usually included in benefit-cost analysis. *Capital costs* are usually paid up front, building (or rebuilding) infrastructure. *Operations and maintenance costs* are paid every year. Though some maintenance costs may be needed only every few years, they can be averaged to an annual number. To compare capital and operating costs, the capital costs must be *amortized* over the expected life of the project at an appropriate interest rate to convert them to an annual cost. This is sometimes called *annualization*.

For example, a major highway or rail line has an expected life of about 30 years before it must be rebuilt. To amortize a project that costs $100 million, use a mortgage calculator to convert that $100 million to an annual payment. For 2012, the United States Office of Management and Budget requires agencies to amortize using a 3.8 percent interest rate. At 3.8 percent, the annualized value of $100 million over 30 years is about $5.6 million per year. This can be added to the annual operations and maintenance costs and compared with the annual benefits over the 30-year period.

Confusion results when it comes to jobs: are they benefits or costs? A recent analysis of a streetcar project in Tucson counted the jobs that would be required by the project as a benefit. Politicians act as if the jobs that result from their spending are benefits, and to someone who is out of work those jobs may sound pretty good. But, for the purpose of benefit-cost analysis, jobs are not a benefit because no one is willing to pay for a job; instead, someone has to pay them to work. Think of it this way: if we take a dollar from one person and give it to someone else, the first person thinks of it as a cost and the second thinks of it as a benefit. But that doesn't mean this has a benefit-cost ratio of 1. In order for the benefit-cost ratio to equal or exceed 1, the transaction actually has to produce something that someone else is willing to pay for.

One cost that has to be considered when looking at a proposal to build a particular transportation project is the *opportunity cost* of spending money on that project rather than on something else. Although more than one of these projects may have benefit-cost ratios greater than one, funds are rarely available to do every single project. A truly objective benefit-cost analysis would identify a wide range of

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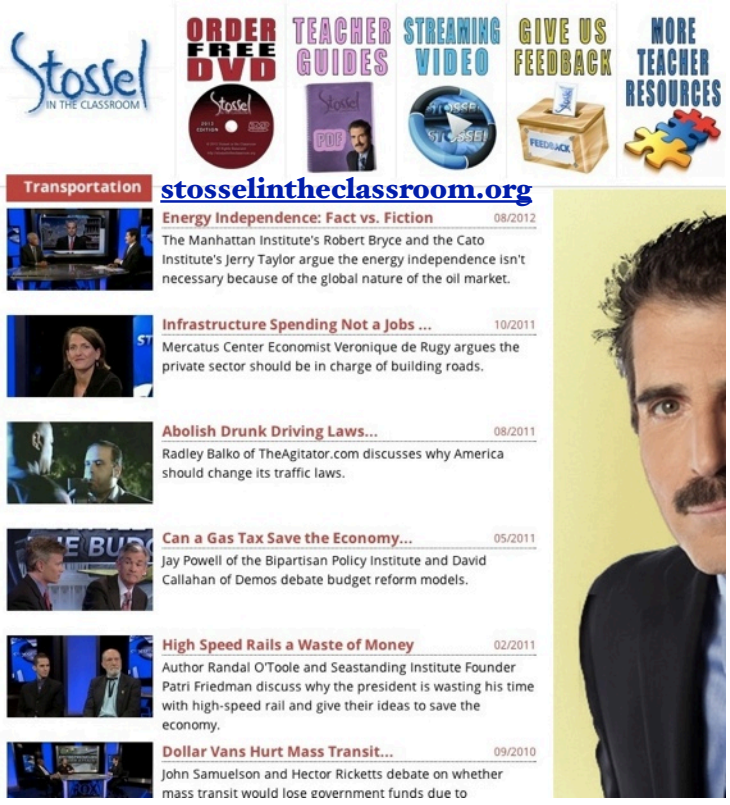

alternative projects, estimate the benefit-cost ratios of each of those projects, and propose to fund the ones with the highest benefit-cost ratios. For example, if a particular corridor suffers from traffic congestion, some of the alternative solutions to that congestion could include building more roads, coordinating traffic signals, building rail transit lines, increasing bus service, or tolling existing roads with variable tolls to encourage some people to drive at less congested times of the day. A plan that fails to identify a full range of alternatives ignores the possible opportunity costs of investing in the alternative preferred by the planners.

Externalities

Benefits are based on people's willingness to pay and costs are based on all of the costs someone has to pay to achieve some goal. But sometimes some costs are paid by people other than the people who get the benefits. These costs are called externalities because they are outside of the costs paid by the user. Air and water pollution are externalities because they impose health and other costs on people other than the people who are doing the polluting.

Not all externalities are costs. Automobiles pollute, but they also allow many people to reach a variety of places including supermarkets and shopping malls. This in turn allows retailers to sell a wider variety of products at lower prices. Even people who don't drive benefit from this when they shop at a supermarket or other store.

Externalities can be included in benefit-cost analyses if the dollar value of the externality can be accurately estimated. For example, pollution costs might include the costs of health care for people who are sensitive to dirty air. Analysts should take care, however, not to build their own personal preferences into the benefit-cost analysis. A Utah state auditor found that planners preparing a transportation plan for Salt Lake City had "cooked the books" to make rail transit seem more worthwhile that it actually was.

Cost-Efficiency Analysis of Denver's East Corridor
(costs and hours saved in millions)

Transport Alternative	Annualized Cost	Hours Saved	Cost/Hr. Saved
New freeway lanes	$40.1	18.36	$2.18
New HOV lanes	$42.0	12.57	$3.34
Diesel rail	$63.4	8.91	$7.12
Electric Rail	$75.1	9.09	$8.26

One way to deal with externalities is to internalize them by making people pay a fee or tax equal to the cost of the externality. Such fees are sometimes called *Pigouvian taxes* after economist Arthur Pigou. For example, the Environmental Protection Agency has chosen to regulate automotive air pollution by requiring the new cars be equipped with increasingly stringent pollution controls. But it could have instead charged people a fee according to how much their car pollutes. This would have given people incentives to retrofit their cars with pollution-control devices, and might have cleaned up the air faster than the method chosen by the EPA. The problem with a Pigouvian tax is that it is difficult to estimate how much the tax should be, especially in a political environment where some people are lobbying to overtax pollution while others are lobbying to undertax it.

Cost-Efficiency Analysis

Cost-efficiency (or cost-effectiveness) analysis is used when it isn't possible to assign a dollar value to some important variable. For example, congestion wastes people's time, but not everyone has the same value on their time, and studies even show that people value their time differently depending on what they are doing at the moment. Rather than assign an arbitrary value to an hour of people's time, a cost-efficiency analysis simply measures the costs of saving time.

As with a benefit-cost analysis, a variety of alternative projects should be considered. If the goal is to save people's time, those projects could include new highway lanes, traffic signal coordination, or improved transit. Planners can use traffic models to estimate how many thousands of hours each project will save per year. Dividing the number of hours into the annual costs of each project results in a cost per hour. For example, Denver's planning agency compared four different alternatives for relieving congestion between downtown Denver and Denver International Airport. These included building new highway lanes open to anyone; building new highway lanes open to buses and other high-occupancy vehicles; building a Diesel-powered rail line; and building an electric rail line.

Given the numbers shown in the table, which alternative should the transit agency choose? While the table indicates that new freeway lanes are the most cost-effective alternative, Denver's transit agency decided to build electric rail transit, suggesting that its goal was to maximize its budget rather than to make the most effective use of taxpayer dollars.

Supply & Demand

One problem with doing benefit-cost analyses, even with values and costs that seem easy to identify, is that prices never stay fixed. Instead, prices depend in part on the quantity of things that are available while the amount people will buy depend on the prices.

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For example, one hundred years ago most automobiles were handmade. Few of them could be made at one time, so they were very costly. This high cost reflected both the high cost of making them and the relative scarcity of cars.

Then, in 1913, Henry Ford installed the first moving assembly line for making cars. This made it possible for him to build far more cars and allowed him to cut the price of his cars in half. This made the Model T Ford one of the most successful cars ever.

Economists graph these changes using *supply and demand* charts. In the charts, the vertical axis represents prices while the horizontal axis represents quantities. At lower prices, the quantities that people will buy increase, so the demand curve slopes down from left to right. However, at lower prices, the quantities that produces will make decrease, so the supply curve slopes up from left to right. The intersection of the two represents the price and quantity at any given time, but this can fluctuate all the time.

For example, in the chart shown, "Supply 1" represents the supply curve for automobiles before 1913, while "Supply 2" represents the curve after 1913. The technological innovation of the moving assembly line greatly altered producer costs and led the supply curve to move. As a result, the number of cars people bought increased even though the demand curve might have stayed constant.

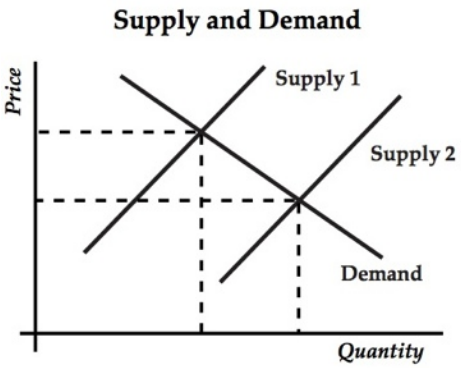
It is also possible for the demand curve to move. If, for example, personal incomes increase, then some people are likely to want more cars or whatever good is represented in the chart.

The slope of the supply and demand curves is very important. For example, between 2004 and 2008, gasoline prices doubled, yet the amount of gasoline Americans bought declined by only about 2 percent. This indicates that the demand curve for gasoline is nearly flat; economists would say that the demand is *inelastic*. If, on the other hand, the cost of automobiles doubled in a short time, people would probably respond by keeping their existing cars longer leading to a dramatic decline in the number of new cars sold. This would mean the demand curve for new cars slopes steeply downward, which economists would say is *elastic*.

Supply curves can also be elastic or inelastic: a flat curve would be inelastic while a steep one is elastic. When either the supply or demand curves are elastic, estimating prices or costs for a benefit-cost analysis can be difficult because a small change in just about anything can lead to a large change in prices.

Induced Demand

Suppose that, in a particular corridor, people driving 6,000 vehicles per hour want to go into town during the morning rush hour and out of town during the afternoon rush hour. Since a typical freeway lane can move about 2,000 vehicles per hour, a six-lane freeway—three in-bound and three out-bound—might seem to be sufficient. The problem with that is that, when a road is used to capacity, a tiny fluctuation in the speed of one car can force everyone to slow down, leading to hours of stop-and-go traffic.



This problem could be solved by building an eight-lane freeway, with four lanes in-bound and four out-bound. Then each lane would move an average of 1,500 vehicles per hour at rush hour, well below the capacity of the road.

Highway critics, however, argue that building new capacity simply leads more people to drive, something they call *induced demand*. They are both right and wrong about this. They are right that making transportation faster, more convenient, and/or less expensive has the effect of moving the supply curve (from Supply 1 to Supply 2 in the chart) so that the price declines and the quantity increases.

Critics are wrong in thinking this is a bad thing. Some cities are even deliberately increasing congestion with the idea that it will reduce driving and that reducing driving is somehow a worthwhile goal. In fact, anything that reduces the cost of transportation will increase mobility, and that increase will translate into greater economic productivity, including higher pay.

The real question is whether the benefits of a particular new road are greater than the costs of that road. The annual reduction of the amount of time wasted sitting in traffic, fuel saved, and other savings can be compared with the annualized cost of the new road, and if the benefits are greater than the cost—and there is no other competing project that has an even higher benefit-cost ratio—then building the road is probably a good thing.

Subsidies

One reason why people debate about the benefits of new transportation projects is that so much transportation today is subsidized with taxes, so we don't really know what transportation is worth to people. This is relatively new; fifty years ago, most transportation was not subsidized, so it was easy to see what transportation was worth to people based on what they were willing to pay to use it. Since then, the public transit industry, which was once mainly private, has been taken over by

state and local governments that heavily subsidize it; intercity passenger trains were taken over by Amtrak, which relies on subsidies from both the federal and state governments; and highways, which were once paid for mainly out of tolls and gasoline taxes, are now often paid for with sales taxes and other subsidies.

Subsidies can have the effect of moving the supply curve to the right (from Supply 1 to Supply 2), thus increasing the quantity that people will consume and encouraging those people who use the subsidized goods to want more subsidies. But subsidies aren't always captured by the users. Much of the subsidy to the transit industry goes to transit workers, in the form of higher pay and benefits, and rail contractors, who benefit from building expensive rail lines when buses could work just as well at a far lower cost.

Of course, the people who get the benefits argue that the subsidies are needed to achieve some social goal, such as reducing traffic congestion or air pollution. But, despite the hundreds of billions of dollars of subsidies to the transit industry since 1970, the number of transit trips taken per urban resident has declined, indicating the subsidies have not achieved any of those goals.

Any evaluation of subsidies must carefully consider who will actually get the subsidies; whether the benefits of the subsidies justify the costs; and whether the 16advocates of the subsidies are not really just special interest groups seeking to enrich themselves at taxpayers' expense.

Public Goods

One reason that is often used to justify subsidies is that something is a *public good*. This doesn't mean something is owned by the public; instead, it refers to things that anyone can consume without reducing the amount available to anyone else and that no one can be excluded from using it. The classic example is national defense: if Bill Gates or Warren Buffet paid for national defense, everyone else would feel protected and so no one would bother to pay their fair share. Thus, the only way to have an adequate national defense is through taxes.

Most of the benefits of transportation go to transportation users, and very few aspects of transportation infrastructure can be considered a public good. So it is difficult to argue that taxes, rather than user fees, should pay for transportation.

Recently, however, some people have argued that one of the costs of transportation is a *public bad*, namely greenhouse gases. Since the climate, like national defense, is not something that can be bought and sold, they argue, government action is needed to reduce greenhouse gas emissions. Even to the extent this is true, the most cost effective ways of reducing greenhouse gases are often very different from what many people think. For example, building cars that emit fewer greenhouse gases can be more cost-effective than trying to get people to drive less.

Conclusions

At first glance, it seems theoretically possible for federal planners to use benefit-cost analysis and similar tools to analyze the nation's infrastructure needs and direct funds to meet those needs. As a practical matter, this strategy is full of perils. Planners have a difficult time accurately estimating the values and costs of things that are bought and sold in the marketplace every day, much less things such as the value of people's time or the cost of air pollution that are not priced by a market.

Lacking accurate numbers, planners can end up substituting their own preferences in their analyses, either by underestimating the costs and overestimating the benefits of the projects they like or overestimating the costs and underestimating the benefits of projects they dislike. Even if planners are entirely unbiased, the politicians who make the ultimate decisions may either overrule planners' analyses or tend to fund new construction while underfunding maintenance.

Thus, any argument that the federal government should increase its investment in infrastructure must answer two questions. First, what is preventing the states or private businesses from providing that infrastructure without federal involvement? And second, how can checks and balances can be built into any federal programs to insure that they are not abused by the politically powerful, including both subsidy-seeking private entities and budget-maximizing public agencies, to favor their own interests at taxpayers' expense?

For More Information

While transportation issues are hotly debated, the data underlying those issues should not be as a tremendous amount of data are available for all forms of transportation.

Highway data are available from the Federal Highway Administration's annual Highway Statistics. Data through 2009 is here: *http://tinyurl.com/mnpuyk* while 2010 data is here: *http://tinyurl.com/6txaleu*. Some particularly useful tables include HM-72 (urban roads and use), HF-10 (highway finance), and HM-64 (pavement roughness).

Transit data are available from two major sources. The American Public Transportation Association's annual transit fact book has data going back nearly a century and is here: *http://tinyurl.com/7aafq73*. The Federal Transit Administration publishes the National Transit Database, which includes data for every federally funded transit agency and mode of transit (bus, light rail..), here: *http://tinyurl.com/q4odck*. You can download profiles of individual agencies, data for individual years, or historic data going back to 1990.

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Some of the data in the National Transit Database are hard to use. I've summarized the historic data, including ridership, fares, and costs, in a large spreadsheet that includes numbers from 1990 through 2010 , here: http://ti.org/HistoricData.xls. Even more data for 2010, including energy consumption and carbon dioxide emissions: http://ti.org/NTD10sum.xls. Substitute 05 through 09 for 10 to get prior year data.

Energy data are available from the Transportation Energy Data Book: http://cta.ornl.gov/data/index.shtml. The most recent book only has numbers through 2009, but a new edition with 2010 data may be available soon.

Household travel data are gathered in the National Household Travel Survey, which is conducted about every six years. Data and reports here: http://nhts.ornl.gov. The "Summary of Travel Trends" is particularly useful.

National Transportation Statistics, published annually by the Bureau of Transportation Statistics, include a variety of other data at http://tinyurl.com/mqk284. Most of these data are derived from other primary sources but are still useful as a starting point for research.

Commuting data showing how people get to work for almost any geographic area are on the Census Bureau's web site at http://tinyurl.com/3rf9lf8. Click on "Topics," then "People," then "Employment," then "Commuting." Or simply enter "B08301" in the search field to find "Means of Transportation to Work." You may also want to review B08303, "Travel Time to Work," to see if transit is really slower than driving. Once you've selected a table, click on "Geographies" to pick a state, city, urbanized area, or other geographic area.

Congestion data are published each year by the Texas Transportation Institute at http://mobility.tamu.edu/ums. You may also want to review Inrix congestion data at http://scorecard.inrix.com/; these numbers are not as detailed but are based on actual observations.

European travel data can be found in the "Panorama of Transport" published by the European Union. The most recent edition is 2009, which has data from 2006: http://tinyurl.com/ykks2bu. It also includes Japanese data for comparison. I've written several reports using and interpreting these data, including:

- "The Greatest Invention: How Automobiles Made America Great," http://tinyurl.com/7xqhnod.
- "Ending Congestion by Refinancing Highways," http://tinyurl.com/6tl26gu.
- "Intercity Buses: The Forgotten Mode," http://tinyurl.com/7m7fbks.
- "Fixing Transit: The Case for Privatization," http://tinyurl.com/65gkfb9.
- "Defining Success: The Case Against Rail Transit," http://tinyurl.com/7z09knr.
- "The Myth of the Compact City: Why Compact Development Is Not the Way to Reduce Carbon Dioxide Emission," http://tinyurl.com/33cy559.
- "High-Speed Rail Is Not 'Interstate 2.0,'" http://tinyurl.com/34nwfep.
- "Does Rail Transit Save Energy or Reduce Greenhouse Gas Emissions?" http://tinyurl.com/kpaw7r.

Other useful data and analyses are available from Wendell Cox's websites: Publicpurpose.com has transportation and transit data; Demographia.com has census data.The Reason Foundation also has published many reports analyzing federal transportation issues: http://reason.org/areas/topic/transportation.

http://www.ncpa.org/pub/ba767


Is U.S. Transportation Infrastructure Falling Down?

Brief Analyses | Taxes

No. 767
Wednesday, July 18, 2012
by Randal O'Toole

In August 2007, the Interstate-35W bridge across the Mississippi River in Minneapolis suddenly collapsed, killing 13 people. The event led many to decry the state of the nation's infrastructure, and stress the need for more federal funding to maintain and repair that infrastructure.

"One-third of the bridges in the United States should have a sign that says, 'Use at your own risk,'" reported CBS News.

As it turned out, the National Transportation Safety Board concluded that the bridge collapsed due to a design flaw, not a maintenance failure. Yet some people still use this event as an example of why the federal government should increase spending on transportation infrastructure.

How Infrastructure Is Funded. Fifty years ago, almost all transportation in America was paid for out of user fees, not taxes. Railroads were private and less than 6 percent of America's rail lines had been built with federal subsidies. Most urban transit systems were private, as were intercity buses. Most airports were public but had been paid for with airport landing fees. Similarly, most highways were public but had been paid for with tolls, gas taxes and other user fees.

Randal O'Toole is a Cato Institute Senior Fellow working on urban growth, public land, and transportation issues. O'Toole's research on national forest management, culminating in his 1988 book, *Reforming the Forest Service,* has had a major influence on Forest Service policy and on-the-ground management. His analysis of urban land-use and transportation issues, brought together in his 2001 book, *The Vanishing Automobile and Other Urban Myths*, has influenced decisions in cities across the country.

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Infrastructure Funding: Taking the Wrong Path

Brief Analyses | Taxes

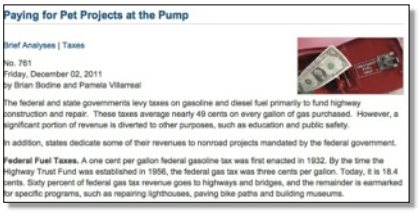
No. 760
Thursday, December 01, 2011
by Peter Swanson

A recent American Society of Civil Engineers (ASCE) report estimated the United States will need to spend $2.2 trillion over the next few years to bring the country's infrastructure to acceptable levels. A $2 trillion projected estimate for infrastructure sounds daunting, but it is important to examine what planners consider "infrastructure."

What Is Infrastructure? Traditionally, infrastructure spending included highways, railroads, bridges and waterways. Infrastructure now encompasses public parks and recreation, schools, and high-speed rail and transit projects. Public transit is often inefficient, underutilized and subject to cost overruns. Yet the ASCE Report Card includes these items as investment needs, rather than optional amenities. For example:

- The $2.2 trillion in infrastructure spending needs outlined in the civil engineers' report card includes $63 billion for improvements along highly questionable Amtrak routes as well as railways that carry freight.
- The total also includes $160 billion for schools and $85 billion for parks and recreation.
- In addition, there is $265 billion for public transit bus and light-rail projects.

http://www.ncpa.org/pub/ba761


Paying for Pet Projects at the Pump

Brief Analyses | Taxes

No. 761
Friday, December 02, 2011
by Brian Bodine and Pamela Villarreal

The federal and state governments levy taxes on gasoline and diesel fuel primarily to fund highway construction and repair. These taxes average nearly 49 cents on every gallon of gas purchased. However, a significant portion of revenue is diverted to other purposes, such as education and public safety.

In addition, states dedicate some of their revenues to nonroad projects mandated by the federal government.

Federal Fuel Taxes. A one cent per gallon federal gasoline tax was first enacted in 1932. By the time the Highway Trust Fund was established in 1956, the federal gas tax was three cents per gallon. Today, it is 18.4 cents. Sixty percent of federal gas tax revenue goes to highways and bridges, and the remainder is earmarked for specific programs, such as repairing lighthouses, paving bike paths and building museums.

www.independent.org/issues/article.asp?id=3092

Testimony on Financing Infrastructure

by Gabriel Roth, *Civil Engineer and Transport Economist*
May 17th, 2011

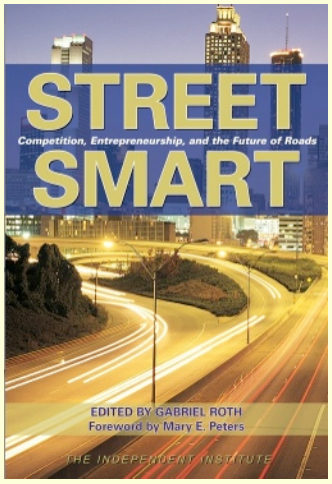
Executive Summary

This testimony is designed to show that, for two principal reasons, the federal government should fund no transportation infrastructure at all.

The first reason is that, in these times of financial stringency, government should not finance facilities for which users themselves could pay if they wished to cover the costs. For example, those wanting railroads should cover the costs themselves, and those wanting roads should pay more into the dedicated funds that support them. The US air, railroad, and road sectors have a long "user pays" tradition, and the current financial deficits require that this tradition be restored. Government funding for interurban travel can be eliminated for this reason alone.

The second reason is that federal payments currently support local services, such as mass transit, and other projects, to promote an undefined concept of "liveability." Such payments do not seem appropriate for federal funding. Why should farmers in Montana be forced to pay for the travel of wealthier people in New York and Washington DC? If local services are to be subsidized, would it not be better for the funds to be raised from the localities that demand them?

These considerations do not apply to appropriations from the federal Highway Trust Fund, which receives dedicated revenues from road users, and has no claims on general revenues. Highway Trust Fund revenues could be increased by raising the dedicated federal fuel taxes but, because conditions vary from state to state, and because of the waste involved in the federal financing of state roads, it would be preferable to meet road funding shortages by raising state charges.



For the longer term, for reasons given in my testimony, consideration should be given to phasing out the federal Highway Trust Fund, and [returning] highway and transit funding to the states.

States are in a better position than the federal government to reform the current systems of owning, funding and managing highways. For example, they could introduce road-use charges based on distances traveled (rather than on fuel consumed), and give private providers opportunities to maintain existing roads and provide new ones on a commercial basis, eliminating the need for government financing, even by "Infrastructure Banks."

Abolition of federal financing is likely to encourage state and private sector funding, and successful reforms pioneered by some states could quickly be replicated in others. *[testimony continues at URL above]*

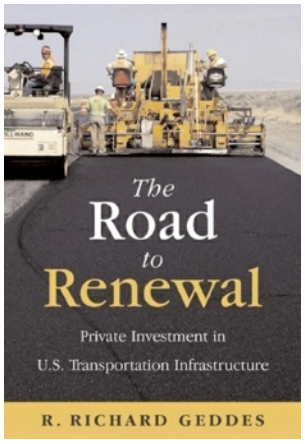
www.aei.org/article/economics/fiscal-policy/build-roads-save-money-with-private-investors/

Build Roads, Save Money with Private Investors

R. Richard Geddes | Bloomberg Government
February 17, 2011

President Barack Obama's proposal to invest $53 billion in high-speed rail reflects the administration's belief that U.S. transportation policy needs an overhaul. Few would disagree that our infrastructure needs significant investment. Roadways are deteriorating, highways are congested and funding is both scarce and politicized.

A high-speed rail system is not the solution. We don't need six years and $53 billion in federal spending to boost our economy and revitalize our infrastructure. We can build new roads, create new jobs and advance American industry by increasing the role of private investment in national transportation policy.



Three policy changes will revitalize and expand existing infrastructure of roads, highways, bridges and tunnels. The first is a shift away from fuel taxes and toward "road pricing," which charges motorists for the miles they drive. The second is allowing road prices to vary according to cost and demand. *[study continue at URL above]*