

*An Inventory of
the Criticisms of
High-Speed Rail*

**With Suggested Responses
and Counterpoints**



AMERICAN
PUBLIC
TRANSPORTATION
ASSOCIATION



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EXECUTIVE SUMMARY

This report is the summary of extensive research that examined the criticism that has been leveled over the past three years at the national efforts to improve intercity passenger rail and introduce true high-speed passenger rail in the United States.

In the course of this research it has been heartening to discover that there are really not that many critics, and those critics have not actually offered many unique arguments against the passenger rail initiative. What is disheartening, however, is that this small group of critics have organized themselves into a well-oiled campaign that includes strategies to repeat the criticisms frequently, offer them as fresh criticisms each time they are expressed, and make broad, sweeping claims that sound factual, but upon close examination are usually without fact.

Most of these criticisms can be found in one form or another in a paper published by the Reason Foundation and authored by Wendell Cox and Joseph Vranich titled, “The California High-Speed Rail Proposal: A Due Diligence Report.” The “Due Diligence Report” was prepared especially to defeat the 2008 California Proposition 1A—a bond referendum to finance the California high-speed rail project.

The key message of “A Due Diligence Report” was that the California High-Speed Rail Authority’s plans had little or no potential to be implemented in their proposed form and that the project was highly risky for state taxpayers and private investors. Cox and Vranich based these conclusions on a misreading of a rather exhaustive study done by Bent Flyvbjerg, Nils Bruzelius and Werner Rottengatter, “Mega-Projects and Risk: An Anatomy of Ambition,” published by Cambridge University Press in 2003.

The intent of “Mega-Projects” was to inform decision-makers of the challenges that face project managers and decision-makers as they propose, pursue and execute large infrastructure projects. Cox and Vranich construed “Mega-Projects” as a condemnation of large infrastructure projects, pointing to the California project as the very type of project “to be condemned.”

Fortunately, California voters saw right through this ploy and approved Proposition 1A, and with the exception of a few populist politicians who seem to campaign against virtually all types of government spending, the criticisms of Cox, Vranich and their colleagues have had little impact except to consume hundreds of inches of newspaper columns across the country, and provide fodder for conservative radio talk show hosts looking to incite their listeners.

Readers may recall that about 10 years ago the American Public Transportation Association launched an initiative to dispel the “myths about public transportation.”

That effort resulted in a series of monographs by Paul M. Weyrich and William S. Lind. The litany of criticisms identified by Weyrich and Lind are not dissimilar from those being leveled at intercity and high-speed rail today.

In this report, the criticisms have been categorized into basically eight groupings:

- Charges of elitism, social engineering, and untruthful attacks;
- The unaffordability of high-speed rail;
- The lack of political and popular support for high-speed rail;

- The notion that rail corridors were being proposed and built to “nowhere;”
- Whether and why intercity and high-speed rail should receive a taxpayer subsidy;
- That intercity and high-speed passenger rail is old technology that is not transformational;
- That even though high-speed rail has enjoyed success in Europe and Japan, it’s a transportation technology that won’t work in the U.S.; and,
- That proponents of passenger and high-speed rail have overstated the benefits.

Then, within each grouping is a recital of specific charges and a rebuttal or explanation of the actual facts about the charge.

Over the past three administrations (Clinton, Bush, and Obama) efforts have been mounted to encourage the reinvigoration of an important passenger transportation mode that served as the vital link uniting the east with the west of a young nation, and later served as the vital transportation mode for American soldiers during times of war.

Following World War II passenger rail became the orphan child of a transportation system increasingly transformed by the automobile and commercial aviation. But as the unintended consequences of over dependence of those modes became more evident and more severe, interest has returned to building a reliable and efficient intercity passenger rail system and laying the ground work for a world class network of high-speed rail.

Perhaps the most trying of these challenges is the unwillingness and/or inability to marshal the leadership and innovative capabilities to address the faltering state of the nation’s infrastructure, especially its transportation infrastructure.

Beyond the basic arguments that “no one rides passenger trains,” and therefore any effort to reinvigorate passenger rail service in the United States is a waste of money, critics now attempt to couch their opposition based on the “financial crisis” facing government at all levels, especially at the federal level. The critics charge it is a transportation service we simply can’t afford until the nation’s fiscal house in order.

Through this project it is hoped that advocates for passenger rail, and especially high-speed passenger rail, are enlightened and provided with the tools to engage both the critics as well as those who may be sympathetic to the critics’ arguments.

If America is to once again have the world’s leading passenger transportation system and build a high-speed passenger rail network for the 21st century, it will be up to passenger rail advocates to seize the leadership, offer the vision, and make the sacrifices to make it a reality, and respond aggressively to critics and their inaccuracies.

INTRODUCTION

(Editor’s Note: This document is intended as a resource paper to assist those seeking to address the various criticisms and attacks leveled against efforts to improve intercity passenger rail and develop high-speed rail in the United States. Users of this information are encouraged to use care restating this information to their audiences to ensure the highest level of understanding and receptivity possible.)

The development of the nation’s transportation system is one of the first delineated responsibilities of the federal government under the constitution (Article I, Section 8). The nation enjoys a heritage of executive leadership that guided the exploration and development of waterways and pathways to support the movement of people and goods outward from the original settlements of explorers and pioneers to the construction of the transcontinental railroad, a sophisticated network of paved highways—most notably the interstate highway system—and the world’s most efficient and safest commercial aviation architecture.

Today, the success of America’s transportation system is both a blessing and a curse in terms of its potential to promote and sustain, as well as to obstruct and cripple, the productivity and mobility of the world’s largest economy.

Understanding this dilemma and the opportunity it represented, American administrations dating back to the mid-1960s began recognizing the value of having a sustainable intercity passenger rail network as part of the nation’s transportation system.

Unfortunately, for a number of reasons that will be delineated in the pages and chapters that follow this introduction, the United States has not benefited from intercity passenger rail, and especially high-speed passenger rail, the way other nations have. Thanks to the vision of recent Presidents, however, America now stands on the cusp of reinvigorating its intercity passenger rail service, and, where appropriate, introducing high-speed passenger rail in corridors where density and potential ridership suggest long-term sustainability.

But this vision, and the efforts to make the vision a reality, have not been without their critics, albeit as readers will come to understand, the effectiveness of these critics has been and remains more a matter of their tenacity, not their numbers or the credibility of their arguments. Even more striking is that while these critics present themselves as conservative and libertarian, they do not represent the majority view of either the far right, or the majority of Americans overall.

This paper identifies, categorizes, and sets the record straight on each of the criticisms this group of self-proclaimed opponents of intercity passenger and high-speed rail have leveled. In fact these critics are so brazen in their efforts that they published an account of their strategy and bragged of its success (*Innovation Briefs*, April 12, 2011):

While much of this has been in the national news, what most journalists and commentators have overlooked is the decisive role a handful of pro-market think tanks and Tea Party activists played in putting these projects in the morgue. Beginning in early 2009, when Congress agreed to fund Obama’s new HSR plan with \$8 billion from the American Recovery and Reinvestment Act, analysts at Cato, Reason, and Heritage, working both individually and collectively (through the American Dream Coalition), began to produce work

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that was critical of the proposals. Cato and Heritage (note: I work at the latter) published several overview papers on the subject, Heritage hosted a total of four seminars, and the Reason Foundation arranged for detailed studies of the California and Florida proposals. Ken Orski, publisher of *Innovation Briefs*, hammered away with weekly skeptical articles that were widely circulated through the transportation-policy community and media.

“As the issue heated up and the projected costs soared, think tanks’ work in this area led to scores of interviews with journalists who were becoming increasingly skeptical of the administration’s claims. By early 2011, even the *Washington Post* and the *New York Times* expressed doubts about the plan. The first victory came in Hillsborough County, FL (near Tampa), where the local Tea Party had established an organization called “No Tax for Tracks.” The name referred to a proposal to hike local sales taxes to pay for a light-rail line that would connect the area to the proposed Tampa/Orlando HSR line.

“In September of 2010, the group held a rally to encourage people to vote ‘no’ in a referendum on the proposal, and several members of the American Dream Coalition spoke at the event. Despite being outspent \$1,600,000 to \$25,000 by the business community and opposed by the political establishment, the Tea Party won, and funding for the light-rail line was defeated.

“Having won against overwhelming odds, the Tampa Tea Party activists turned their attention to Florida’s proposed HSR boondoggle. During the 2010 campaign, Republican gubernatorial candidate Rick Scott expressed skepticism about the HSR plan and promised a thorough review of it if elected. Scott was elected and did conduct the review, which was influenced by—and several times quoted—the Reason Foundation’s analysis. At the same time, the Hillsborough County Tea Party team, joined by allies throughout the state and supported by the think tanks, went to work opposing the project. In the process, they met with media, elected officials, and the new governor. By late February, they had convinced enough of those in need of convincing, and the project seemed dead.

“But not quite. President Obama’s refusal to let go of this scheme, and his ability to expend vast sums of taxpayer dollars to keep it alive, allowed it to flounder along for a week or two after the court’s ruling as his aides tried to circumvent the decision. In the end, the Florida project died, and with the California HSR project unlikely to be built because of high costs and tight budgets, all that is left of the Obama rail plan is an effort to increase spending on Amtrak.

“The success of this effort illustrates how a small number of dedicated people with limited money but lots of energy and commitment can take on powerful forces and bring them to heel. As the *Miami Herald* noted, Governor Scott ‘said he made the decision based on a verbal review of the ridership study, as well as documents provided by the libertarian Reason Foundation and the Heritage Foundation, a conservative think tank.’ Importantly, the majority in Congress agrees: The House Budget Resolution for FY2012 states that ‘the threat of large, endless subsidies is precisely the reason governors across the country are rejecting federally-funded high-speed rail projects. This budget eliminates these projects which have failed numerous and clear cost-benefit analyses.’”

Their criticisms (which appear indented and in bold type throughout this paper) fall into 8 categories—some of which are, in many cases, incredibly contradictory of each other. Among the categories are:

- Charges of elitism, social engineering, and untruthful attacks;
- The unaffordability of high-speed rail;
- The lack of political and popular support for high-speed rail;
- The notion that rail corridors were being proposed and built to “nowhere;”
- Whether and why intercity and high-speed rail should receive a taxpayer subsidy;
- That intercity and high-speed passenger rail is old technology that is not transformational;

- That even though high-speed rail has enjoyed success in Europe and Japan, it's a transportation technology that won't work in the U.S.; and,
- That proponents of passenger and high-speed rail have overstated the benefits.

It is hoped that through this project, the record on intercity passenger rail, and especially high-speed rail, will be set straight, and readers will come to understand both the lack of credibility and the limited nature of the attacks leveled at this important element of America's 21st century transportation system.

CHAPTER I

Charges of Elitism and Social Engineering: Untruthful Attacks

In April 2011, Steven Harrod, an assistant professor at the University of Dayton, writing for CNN.com, observed:

“. . . Much of the opposition to rail projects appears to stem not from economic arguments, but from fundamental cultural values on what ‘American’ transportation should be.

A perusal of online commentaries about passenger rail stories reveals a curious linkage by writers between passenger rail and ‘European socialism.’

Never mind that the majority of European passenger rail operates on a commercial basis.

Many critics of passenger rail emotionally identify it as an enabler of cultural values they fear.”

Indeed, this project’s review of criticisms leveled at current national efforts to re-invigorate intercity passenger rail and develop high-speed passenger rail found several commenters who mimic one another in their assertions that high-speed rail is a conveyance of the elite and will have only limited consumer demand.

“. . . Much of the opposition to rail projects appears to stem not from economic arguments, but from fundamental cultural values on what ‘American’ transportation should be.”

On February 2, 2010, Michael Barone, writing in the *Washington Examiner* suggested that:

“There is a central planners’ impulse in American liberals that loves rail travel: It allows credentialed elites to channel everyone else into a specific pathway. It’s fun to draw those lines on maps . . . It is an unfortunate fact that rail lines are hugely expensive and inherently incapable of adjusting to changing patterns of business and living.”

Economic Geography

To support his point, Mr. Barone noted that:

“Metro Washington’s beautiful but under-maintained Metro system does not serve Tysons Corner, the second biggest concentration of office space in the metro area . . . because its planners in the 1960s and 1970s didn’t anticipate that Tysons would become what it is . . . Now a Tysons and Dulles Airport extension is being built at enormous costs.”

How ironic that Michael Barone laments over the lack of foresight by planners of Tysons Corner in Northern Virginia, and somehow, by extension the plan (desire) of citizens, states, and national leaders to make high-speed rail a reality in America. Mr. Barone should remember that a rail link between Dulles Airport and downtown Washington was included in the 1956 master plan for Dulles International Airport. But because there were people like Mr. Barone who thought the cost too great and the benefit too small, only the rail link’s right of way was reserved.

It was not until the mid-to late 1980s when Jeeb Halaby, the former Chairman of Pan American Airways and Federal Aviation Administrator, initiated an effort to plan and build that rail link. Mr. Halaby proposed to build the link as a private venture with an estimated cost of approximately \$850 million.

Unfortunately, Mr. Halaby was not successful. But he did set the stage for Northern Virginia counties and other regional governing bodies to begin laying the groundwork that would eventually lead to the approval and now construction of the Silver Line Metro Rail extension, a 23-mile, 11 station addition that will connect Dulles Airport and Tysons Corner to downtown Washington. The current price tag for that project is approximately \$6 billion.

In a similar vein, the columnist/economist Robert J. Samuelson (“High-Speed Pork,” *Washington Post*, November 1, 2010): opined that:

“We are prisoners of economic geography. Suburbanization after World War II made most rail travel impractical. From 1950 to 2000, the share of the metropolitan population living in central cities fell from 56 percent to 32 percent . . . Only in places with great population densities, such as Europe and Asia, is high-speed rail potentially attractive.”

Samuelson continued:

“The absurdity is apparent. High-speed rail would subsidize a tiny group of travelers and do little else. If states want these projects, they should pay all costs because there are no meaningful national gains. The administration’s championing and subsidies—with money that worsens long-term budget deficits—represent shortsighted, thoughtless government at its worst.”

The administration’s passenger rail initiative is as much a national program as was (and apparently in Mr. Samuelson’s mind still is) the interstate highway program (and possibly even the commercial aviation initiative of the ’50s as well). Each of these initiatives started somewhere. They did not just drop from the sky one day and provide a new transportation option for everyone, everywhere.

The administration set forth a transparent process with objective criteria to which they invited states, and communities throughout those states, to apply for a small sum of funding that would serve as the “down payment” on a national initiative that would ultimately link cities in regional corridors, perhaps eventually establishing a national network of passenger rail service—some of it true high-speed rail—to augment the nation’s highway and aviation networks and to be integrated with all modes of passenger transportation.

In the Northeast Corridor, intercity trains enjoy a market share almost equal to the airlines, and nationally, ridership on Amtrak is at an all-time high.

There is no question that intercity passenger rail in the United States presently does serve the smallest share of riders among all modes of passenger transportation. But as we will see elsewhere in this paper, that picture is changing. In the Northeast Corridor, intercity trains enjoy a market share almost equal to the airlines, and nationally, ridership on Amtrak is at an all-time high. After years of being underfunded and competitively disadvantaged by other highly subsidized transportation modes, intercity passenger rail is making a comeback, much to the consternation of its critics.

The administration, and those who believe there is a time and place for passenger rail, and especially high-speed rail, are forging ahead. They are searching for strategies to finance, design, build, and operate passenger rail in a manner that will make it sustainable, reliable, and worthy of private sector investment. There is nothing shortsighted about this effort.

Social Engineering

On February 14, 2011 Samuelson, again in the *Washington Post*, argued that:

“Somehow, it’s become fashionable to think that high-speed trains . . . will help ‘save the planet.’ They won’t. They’re a perfect example of wasteful spending masquerading as a respectable social cause . . . that there is something wildly irresponsible about the national government undermining states’ already poor long-term budget prospects by plying them with grants that provide short-term jobs.”

As to the notion suggested by Mr. Samuelson that the states will be undermined, the initiative is totally state-driven. It is up to the states to decide for themselves whether they want their passenger rail systems improved. Judging by the number of states that made application for the various rounds of federal funding to date (38 and several of them multiple times), and the number of states that decided to return their grants to the federal government (originally three, but subsequently one of the three reapplied), it is safe to say that the states are not feeling victimized.

So let’s set the record straight and perhaps also provide some enlightenment. No one in the administration, or for that matter, even strong proponents like the U.S. Public Interest Research Group (USPIRG), America 2050, and the American Public Transportation Association (APTA) ever made the claim, as Mr. Samuelson implied, that high-speed rail would save the planet, albeit that would be a respectable societal objective.

It is strange that these critics don’t seem to have the ability (or perhaps willingness) to see the potential of the future and the realization that just because conditions are as they are today they can’t be better or different tomorrow. If Henry Ford had lacked this same ability, we might all still be riding in horses and buggies. Can you imagine the mobility, air quality, and public sanitation issues we’d face?

By the administration’s own words, high-speed rail is not ubiquitous high-speed rail, but rather an initiative that offers the opportunity to rebuild America’s passenger rail network in 13 corridors that would link economic centers at a distance of 100 to 600 miles; and do it in a way that would be sustainable and competitive with highway and air travel. This would occur against a background of increasingly over-congested highways and airways for which there is little relief except to divert a portion of their burden to other viable modes of transportation. How in anyone’s mind could that be considered wasteful spending, especially when it is intended that the private sector will be an active partner in pursuit of this mission, not to mention that this is exactly what is needed in order to enable our nation to regain its edge as a dynamic and successful economic power?

As it is, the passenger rail improvement initiative is indeed a long-term infrastructure development initiative conceived to be as massive as the construction of the nation’s interstate highway system. That initiative took over 50 years to complete, the equivalent of at least two generations of workers engaged in highly skilled infrastructure design and construction. Labor experts estimate that for every \$1 billion spent on conventional and high-speed passenger rail development, 20,000 jobs are supported. With \$13 billion already appropriated and \$53 billion proposed over the next six years, that translates into 1.3 million jobs at a time when jobs creation is exactly what our economy needs.

[T]he passenger rail improvement initiative is indeed a long-term infrastructure development initiative conceived to be as massive as the construction of the nation’s interstate highway system.

Sadly for the nay-saying opiners noted in this chapter and for many others who repeat these same criticisms, it appears that they have lost one of the most basic tenants of conservatism: the desire for freedom and liberty. Having the freedom to choose when and how to travel historically has been one of the most envied and liberating aspects of American life. In the face of dictators and despots, the freedom to move about the United States without restriction has been one of the hallmark qualities of our national lifestyle. That is what gave the automobile such popularity. Unfortunately, that popularity was exploited so extensively (see discussion below) that it is now depriving Americans of the mobility and access they seek to enjoy.

In a *Newsweek* editorial on February 27, 2011, noted pundit George Will observed that:

“Promotion of high-speed rail is an illumination of the progressive mind.”

He supported his claim by quoting Randal O’Toole of the Cato Institute:

“A. High-speed rail connects big-city downtowns where only 7 percent of Americans work and 1 percent live, and

B. High-speed rail will not displace enough cars to measurably reduce congestion.”

George Will went on in the same editorial to proclaim:

“According to the *Washington Post*, China’s fast trains are priced beyond ordinary workers’ budgets, and in France and likewise in Japan there is only one high-speed rail line that is profitable.”

High-speed rail service generates enough operating profit that it can subsidize other, less-profitable intercity rail lines in countries such as France and Spain, as well as in the U.S. Northeast.

That may be true, but it’s beside the point and the charge is intended to incite, not inform the reader. There is a vast difference between the economic conditions of China and the United States. One day, Chinese workers’ average wages may rival American workers, so the \$9.00 (82 RMB) high-speed rail coach fare between Shanghai and Hangzhou will seem insignificant as it would to any regular traveler in the Northeast Corridor who pays \$79.00 to travel between Washington, D.C. and New York.

As to the French TGV and the Japanese Shinkansen, there have been many valuable lessons learned from which the United States will benefit as we go forward. The most important of these lessons that the critics acknowledge but refuse to accept is that passenger trains, if allowed to compete in an even environment with other modes, can cover their costs and in some instances even turn a profit.

According to the New Jersey Public Interest Research Group, high-speed rail lines generally cover their operating costs with fare revenues. In the United States, a financially sustainable high-speed rail system will likely not require operating subsidies from taxpayers (although public funding is essential to getting the system up and running).

High-speed rail service generates enough operating profit that it can subsidize other, less-profitable intercity rail lines in countries such as France and Spain, as well as in the U.S. Northeast.

Two high-speed rail lines—the French TGV line between Paris and Lyon and the original Japanese Shinkansen line from Tokyo to Osaka—have covered their initial costs of construction through fares.

George Will observed (February 27, 2011, *Newsweek*):

“The administration is fixated on social engineering, and in this case it is fixated on depriving people of the delusion that they can travel hither and yon, wherever and whenever they desire without timetables as if they were ‘masters of their fates.’”

In his criticism of high-speed rail, Will himself seems delusional, thinking that people can presently “travel hither and yon, wherever and whenever they desire without timetables as if they were ‘masters of their fates.’”

As the Texas Transportation Institute annually reports, highway congestion, particularly along the East and West Coasts and in the Midwest around Chicago, causes significant delays in travel time, unnecessary waste of fuel, and considerable loss of productivity.

Additionally, the Federal Aviation Administration continues to chronicle significant delays in arrivals and departures at the nation’s airports due to congestion in the skies. These problems will only grow worse as the nation’s population grows by over 100 million in the next 30 years.

An analysis of 2000-2008 census data by the Brookings Institution highlights the demographic “tipping points” seen in the past decade and the looming problems in the 100 largest metropolitan areas, which represent two-thirds of the U.S. population.

These are not matters of social engineering. These are matters of planning and building today in an effort to address the widely recognized challenges of tomorrow.

Elitist Preference

On Maryland Public Radio on February 11, 2011, Marc Kilmer of the Maryland Public Policy Institute joined the nay-sayers proclaiming:

“The main users of passenger rail service are “downtown workers” such as lawyers, bankers, and government officials—less than 8 percent of American jobs. Meaning that all Americans will subsidize trains used by only a small urban elite.”

This is a baseless wedge argument intended to promote a wealthy vs. the rest of us divide on high-speed rail.

In a speech in Philadelphia on December 1, 2001, Chicago lawyer and Amtrak Reform Council member James Coston gave the perfect rejoinder to this criticism:

“When I hear critics say, ‘Well, the federal government may have a role in financing improvements for high-speed trains that carry business travelers in urban corridors, but it has no business promoting long-distance leisure travel for a tiny minority of well heeled tourists,’ I have to ask, ‘Oh, really? Then why do the Army Engineers use taxpayer funds to build breakwaters and to dredge channels for cruise ships that dock at Miami and Ft. Lauderdale and Palm Beach and New Orleans, and why does the U.S. Coast Guard protect those harbors, and why does Customs & Immigration Service have an army of inspectors at every pier?’ And anyway, who says long-distance train travel consists only of so-called leisure travel? The pace may be leisurely compared with air travel, but when I spent my days putting people on the Zephyr and the Empire Builder and the City of New Orleans at Chicago Union Station, they

didn't look much like cruise ship passengers to me. The people I put on those trains were college students traveling between home and school; people visiting their families; people relocating to new jobs or checking out an out-of-town job opportunity, professional groups heading to a conference; foreign visitors who wanted to see the U.S. close up and meet Americans en route; and retirees—most of them not particularly wealthy—who wanted a relaxing and informative travel experience. I think those are activities worthy of federal infrastructure support. They already get federal infrastructure support when they're carried out on the highway, airway, and waterway systems. Why not on rail as well? And you know what? If a so-called tiny minority of well heeled tourists wants to ride a passenger train, I say, 'Welcome aboard!'

The people I put on those trains were college students traveling between home and school; people visiting their families; people relocating to new jobs or checking out an out-of-town job opportunity; professional groups heading to a conference; foreign visitors who wanted to see the U.S. close up and meet Americans en route; and retirees—most of them not particularly wealthy—who wanted a relaxing and informative travel experience. I think those are activities worthy of federal infrastructure support.

Cruise ship travel started out as an upper-class fringe phenomenon in the 1960s, but thanks to the billions of dollars the federal government handed out to local communities to improve their deepwater ports, the cost of cruise ship travel came down, new entrepreneurs entered the business, and what was formerly considered a luxury for a slender stratum of super-rich individuals has now turned into a virtual entitlement for middle-class America. I can't prove it, but I strongly suspect that a firm federal commitment to rail infrastructure also will change the demographics of rail travel—creating new markets; opening up new travel and leisure choices for millions of Americans who today know nothing of rail travel; attracting train-riding overseas visitors who find our current mobility options puzzling and inconvenient; and opening up new entrepreneurial opportunities that the bureaucratic mind with its picking-winners-and-losers mentality simply is not configured to imagine.”

Writing in the *Washington Examiner* (“High-Speed Rail Is a Fast Way to Waste Taxpayer Money,” January 18, 2011), Michael Barone said:

“So we are spending billions on high-speed rail that isn't really high-speed, that will serve largely affluent business travelers and that will need taxpayer subsidies forever. This should be a no-brainer for a Congress bent on cutting spending.”

The cost per mile of building rail that may eventually evolve to be high-speed rail is between \$3 million and \$6 million per mile according to the Indiana High-Speed Rail Association. That compares quite favorably to \$15 million to \$25 million per mile of interstate-type highway. Plus, based on the experience of European and Asian

high-speed rail operators, as well as Amtrak's experience in the Northeast Corridor, passenger rail service, and especially high-speed passenger service, generates at least enough fare box revenue to cover above the rail costs. A recent Congressional Budget Office study, “Alternative Approaches to Funding Highways” (March 2011), notes that the current 18.6 cent gas tax pays for less than one-quarter of the cost of highway construction, maintenance, and operations.

Another vocal critic, Randal O'Toole of the CATO Institute, who, as we read earlier through the words of George Will, believes intercity passenger rail, especially California high-speed rail, is only for the elite:

“One thousand dollars per taxpayer is only the beginning. Count on adding \$400 for construction cost overruns. Taxpayers will also have to cover operating losses . . .

Most of the rest of your \$1,000 will go to California . . . Even this train will do little to relieve congestions or save energy; ...just fatten the wallets of rail contractors

The train’s only advantage is for people who are going from downtown to downtown . . . bankers, lawyers, government officials, and other high-income people who hardly need subsidized transportation . . . High-speed rail is a service that will only be used by the privileged who can already afford it without a subsidy from taxpayers . . .

Amtrak’s high-speed train, while \$49 pays for a moderate speed train ride that takes three hours and fifteen minutes. Meanwhile, relatively unsubsidized and energy-efficient buses cost \$20 for a four hour and fifteen minute trip with leather seats and free Wi-Fi. Airfares start at \$119 for a one hour flight.”
(Cato Institute, June 18, 2009)

O’Toole argues that the time savings is not worth the cost of the present difference between Acela (\$139) and Northeast Regional (\$60) services between Washington and New York (a value judgment), especially compared to the cut-rate (\$20) bus service or the \$119 one-way flight (the price in June 2009)/one hour (no accounting for travel time to and from the airport or wait time in security lines).

Mr. O’Toole apparently is attempting to extrapolate some kind of cost based on what he claims are Amtrak losses of \$28 to \$84 per passenger in most of its short-distance corridors and \$84 per passenger in the state-subsidized corridors like North Carolina’s Raleigh-Charlotte corridor. It would be interesting to see what the comparable numbers would be for highway and aviation infrastructure cost overruns and operating losses.

These figures and statements bear no resemblance to the 800-mile, largely green field high-speed rail project proposed by the California High-Speed Rail Authority.

According to the California High-Speed Rail Authority, its high-speed train system would lower the number of intercity automobile passengers on highways by up to 70 million annually. What’s more, it will cost less than half the amount of expanding freeways and airports to meet future intercity travel demand and would eliminate the need to construct 3,000 lane miles of highways, 91 airport gates, and five additional airport runways.

“The California corridor is among the most ambitious in the nation. It includes the construction of a new, electrically-powered high-speed rail system of 800 miles serving major population centers from San Francisco and Sacramento to Los Angeles and San Diego with over 300 trains per day.

Phase I calls for an approximately 500-mile system connecting Anaheim and Los Angeles through the Central Valley to San Francisco by 2020. Phase II would extend the system north to Sacramento and south to San Diego by 2026.

According to the California High-speed Rail Authority, its high-speed train system would lower the number of intercity automobile passengers on highways by up to 70 million annually. What’s more, it will cost less than half the amount of expanding freeways and airports to meet future intercity travel demand and would eliminate the need to construct 3000 lane miles of highways, 91 airport gates and five additional airport runways.

Trains will reach speeds of 220 miles per hour, providing a travel time between Los Angeles and San Francisco of under 2 hours 40 minutes, compared to 6 hours by car. When fully developed, California expects up to 100 million passengers per year, making it one of the busiest passenger rail lines in the world.” (Federal Railroad Administration)

In its editorial on February 10, 2011 (“High-Speed Rail: Obama’s Gift that Nobody Wants,”) the *Washington Examiner* joined the chorus of nay-sayers when it wrote:

“. . . the administration’s latest gift to the American people: A six-year, \$53 billion government subsidy for the mass transit industry in order to give 80 percent of Americans access to high-speed rail within 25 years.’ . . . giving the rest of us things we don’t want and using our money to pay for them.

“. . . Nothing better illustrates this phenomenon than their obsession with forcing Americans out of their private passenger vehicles that enable them to go where they choose and into government-run transit systems like Amtrak, San Francisco’s BART, and Washington D.C.’s Metro subway that take them where and when politicians and bureaucrats think they should go.”

In its FY 2009 Annual Report, BART stated:

“NEW RIDERSHIP RECORD SET—As gas prices skyrocketed, more and more drivers left their cars at home and rode BART instead. Throughout the summer, ridership exceeded projections and reached a peak on Monday, September 9 when BART set a new single-day ridership record: 405,400 riders used BART to commute to work, watch the Giants in San Francisco, or cheer the Raiders in Oakland. This record smashed FY 2008’s record set on June 19, 2008, when 394,370 customers rode BART on the single Spare the Air/Free Transit day of the summer.”

On July 15, 2003, the Washington Metropolitan Area Transit Authority (WMATA) issued a press release noting:

“Metrorail ridership soars to highest level in 27 years. Metrobus reaches second highest total ever—WMATA Chief Executive Officer Richard A. White announced today that during fiscal year 2003 (July 1, 2002, through June 30, 2003), Metrorail achieved its highest ridership total in its 27-year history, carrying 184,364,325 customer trips, a 2.1 percent increase, or nearly four million more customers than in fiscal year 2002. This marks the seventh consecutive year of increased ridership for Metrorail.

‘Despite a continued sluggish economy, I am pleased to report that we achieved record ridership levels for Metrorail and Metrobus,’ said Mr. White. ‘Our rail ridership continues to climb, as we are seeing an increase at a two percent level.’”

In its January 2011 Vital Signs Report, WMATA stated there were 217,219,000 Metrorail riders, 123,847,000 Metrobus riders, and 2,377,000 Metro Access riders on the system in 2010.

Across the United States, the American Public Transportation Association reported in its fourth quarter “2010 Public Transportation Ridership Report” that there were 10.18 billion unlinked transit passenger trips in 2010 compared to nearly 10.26 billion in 2009, a slight decrease of 0.74 percent (possibly due to economic and weather conditions).

For its part, Amtrak, in its 2009 Annual Report, noted that demand for passenger rail was strong. During FY 2009, Amtrak carried 27.2 million passengers—the second highest total in company history. While

ridership in FY 2009 was down from the all-time record of 28.7 million in FY 2008, it was up 5 percent over FY 2007, continuing a long-term trend of rising ridership since FY 2002 when 21.6 million passengers rode Amtrak.

On this basis, it's pretty hard to argue with any credibility that the American public does not want, nor will they use public transportation. Judging from the latest statistics from the Texas Transportation Institute, Americans would like nothing more than to have transportation services available that will allow them to reclaim some of those 6 billion hours a year lost in highway and roadway congestion.

According to a July 27, 2008 posting by Sarah Schlicter at Independenttravel.com, Amtrak ridership was up 11 percent since October 2007, and the company expected to see a record number of passengers in 2008 (see "High-Speed Rail: Obama's Gift that Nobody Wants," *Washington Examiner* Editorial, February 10, 2011, above).

From her perspective, Ms. Schlicter believes there are at least 10 good reasons to choose passenger rail travel over air or car travel:

“1. Money savings: If you're watching your wallet, trains are an increasingly cost-effective alternative to planes, particularly if you're going a relatively short distance or if you're traveling in the busy Northeast Corridor, where train service is fast and frequent.

In a recent search, we found a low airfare of \$259 roundtrip for an October flight from Philadelphia to Boston; on the train, the price was just \$160 roundtrip. We saw an even more dramatic price differential on a trip from New York to Montreal: \$632 roundtrip by air versus just \$124 on the train. In both instances, the train ride was longer than the corresponding flight, but for travelers looking to cut costs, the train wins out—and you'll get to see some scenery along the way.

Amtrak and other rail operators usually give discounts to children, seniors, students, AAA members, military personnel, and other key demographics.

2. Stable fares: Anyone who's agonized over when to purchase airfare knows how arcane and frustrating the airlines' pricing structures can be. (We're still waiting for a logical explanation of why a one-way ticket costs so much more than a round trip. Anyone? Anyone?) Train fares tend to be the same day after day on any particular route, whether it's Monday or Saturday, April or August, two months in advance or two days before departure. While some increases may occur (particularly at peak times or over the holidays) and occasional sales may be available, you can usually count on train fares being relatively stable, even at the last minute.

3. Flexibility: Except on long-haul or infrequently traveled routes, trains tend to offer travelers a great deal of flexibility. Missed the 10 a.m. train? Just catch the 10:30 or 11 a.m. train instead. Most short trips do not require prior reservations, and you can simply show up at the station the day of your trip and grab a ticket for the next train—without paying an exorbitant last-minute fare.

4. More baggage: These days, nearly all the major airlines charge domestic travelers a fee to check two bags—and many of them will charge you to check just one. Compare these stingy policies to Amtrak's baggage allowance:

Each passenger may bring aboard no more than two pieces of carry-on baggage. Not included in this limit are personal items such as briefcases, purses, laptops, and infant

paraphernalia such as strollers, diaper bags, and car seats. . . . Each carry-on bag may weigh no more than 50 lbs.

Each ticketed passenger may check up to three pieces of luggage at no charge. . . . Each checked bag may weigh no more than 50 lbs.

In total, Amtrak allows you to bring 250 lbs. of luggage—plus personal items—for free. Try bringing that on an airline!

5. Less hassle: Imagine taking a trip and not having to arrive two hours early, wait in a long security line, take off your shoes for inspection, or ration out your liquids and gels. Welcome to the world of train travel. In most cases you can arrive 30 minutes ahead of time and walk straight to your platform—with no security and no lines.

6. Door-to-door convenience: Unlike airports, most major train stations are located right downtown in the heart of the cities they serve. Instead of taking an expensive airport cab ride from miles outside of town, you can step off your train and be just moments from your hotel.

7. Eco-friendliness: Trains are more energy-efficient per passenger mile than planes or cars, making them one of the most eco-friendly transportation options around (short of walking or riding your bike)! Carbon emissions from trains are less damaging to the environment than those of airplanes because those emissions are not released directly into the upper atmosphere. As a bonus, the relative energy-efficiency of trains means that the industry is less vulnerable to increases in fuel prices—making train fares more stable in an unstable economy.

8. Comfort and relaxation: Rather than cramming yourself into an ever-shrinking airplane seat or squinting at road signs trying to figure out where to make your next turn, why not relax on a train? It's one of the least stressful forms of transportation out there: someone else does the driving, you'll have more legroom than you would on an airplane, and you'll be able to move around at will—not just when the captain turns the seat belt sign off.

9. Old-fashioned charm: There's something refreshingly traditional about taking a train, particularly if you're traveling over a long, multi-night route. The days of silverware and fine china in coach class may be long gone in the airline industry, but on overnight trains you'll still find dining cars with full-service meals and uniformed wait staff. During the day, many train travelers choose to read books, play cards, or simply enjoy the scenery rushing by. (High-tech travelers, don't worry—iPods and laptops are more than welcome aboard trains, too.)

10. Beyond just transportation: Unlike airplanes, which whisk you from point A to point B with barely a glimpse of what's in between, a train ride can be a destination in and of itself. Take the California Zephyr—a dramatic route that wends its way through the Rocky and Sierra Nevada Mountains from Chicago to San Francisco. A ride on this popular Amtrak route offers spectacular scenery. During fall foliage season, try a ride on the Ethan Allen Express from New York to Vermont and enjoy the autumn colors.”

One final note regarding the elitist preference for intercity passenger rail—a recently posted page on the Amtrak website titled “Long Distance Train Facts,” notes:

“Long distance trains provide a vital transportation service for those unable to fly or drive, and for many senior citizens (who account for 38 percent of adult passengers) and disabled persons. Forty-two percent of passengers with disabilities who traveled on Amtrak in fiscal

year 2010 rode long distance trains. They are often the only transportation mode still operating during severe winter weather conditions that ground planes and close highways. Long distance trains also play an important role in emergency situations: they accommodated thousands of stranded airline passengers after the terrorist attacks of September 11, 2001.

Airline and bus service to rural areas has declined in recent years, making long distance trains an even more important travel mode for many rural communities. For example, Amtrak's *Empire Builder* train route carried 533,000 passengers in fiscal year 2010 (roughly equivalent to 4,900 Boeing 737 flights), along a corridor with little to no bus or air service, no parallel interstate highway for much of the route, and extreme winter weather conditions that frequently close highways and airports. The train connects rural communities in North Dakota, Montana, and eastern Washington to larger urban centers with essential services (e.g. hospitals) such as Minneapolis, Spokane, Portland, Seattle, and Chicago.”

This doesn't sound like elitism. It sounds more like good old middle-American common sense value.

CHAPTER II

Unaffordable

It is sad that for more than two decades our nation has turned its back on its infrastructure, most notably its transportation system. What was once the envy of the world is now an international embarrassment.

We have gone from having a super-efficient transcontinental network of interstate highways, world-class freight railroads, the safest commercial aviation system, and a promising, newly reborn intercity passenger rail to a crumbling mass of congested asphalt and bridges; an aviation system so taxed that Congress felt compelled to pass a law recently directing how long passengers could be held hostage by airlines as their planes waited to take off; and still just the hope for a better day for intercity passenger rail.

But rather than recognize this as a time to invest and rebuild the nation's transportation infrastructure, thereby promoting job creation and stimulating the economy, opponents of intercity and high-speed rail have decided that the nation cannot afford this timely and much needed infrastructure investment.

In spring 2011, in line with Congressional consideration of the 2011 appropriations and the president's 2012 budget proposal, the "We can't afford it" crowd launched a barrage of attacks against improved intercity and high-speed rail.

A Drop in the Bucket With No Cost/Benefit Analysis

On February 10, 2011 Diana Furchtgott-Roth wrote in the *Washington Examiner*:

"Developing a true, nationwide high-speed rail network would cost far more than \$53 billion . . . could cost between \$250 billion and \$500 billion . . . Obama's initial payment would be just a first drop in the bucket."

More recently, on April 21, 2011, Diana Furchtgott-Roth, writing in the *Washington Examiner*, charged that:

"There's no better example of excessive government spending than the \$53 billion President Obama allocated for high-speed rail in his 2012 budget . . . Shockingly, Obama wants to spend on a mode of transportation few Americans use, yet his administration has performed no studies on the feasibility either of the entire system or of individual components . . ."

What's actually shocking about all of these highly charged attacks is that they are grossly inflammatory and lack any sense of vision or reality, and little fact. Additionally, it's as if all of these critics have forgotten their past and the support they once professed for individual choice, for economic competitiveness, for jobs creation, and a strong national infrastructure.

In the first place, the president's proposal is a six-year plan that has not even been written into draft legislation let alone passed into law.

Secondly, it is not until the U.S. Department of Transportation actually issues the Federal Register notice requesting proposals from prospective grantees that there is need for anyone to prepare a cost/benefit analysis on the specific legs of the respective intercity passenger and high-speed corridors for which they seek support.

Thirdly, each of the grants that have been made by the U.S. Department of Transportation for intercity passenger and high-speed rail development does indeed require a cost/benefit analysis as described in Federal Register notices (see Federal Register June 23, 2009, pages 29800–29929 and Federal Register July 1, 2010, pages 38344–38383, for example). That is the way government at all levels—local, state, and national—has managed transportation infrastructure projects for decades, whether they be highways, airways, or transit projects; and it is the way passenger railway projects are now being managed by the Federal Railroad Administration (FRA).

“We found that FRA applied eligibility criteria established in its funding announcement when determining whether applications were eligible. Specifically, eligibility criteria listed in the funding announcement aligned with criteria outlined in the worksheets used by the panelists to verify that applications were eligible.”

The efficacy of those cost/benefit analyses were further confirmed by the Government Accountability Office (GAO) in its March 2011 Report to Congress (GAO-11-283) in which it stated on page 11, “We found that FRA applied eligibility criteria established in its funding announcement when determining whether applications were eligible. Specifically, eligibility criteria listed in the funding announcement aligned with criteria outlined in the worksheets used by the panelists to verify that applications were eligible.”

In other words, full cost/benefit analyses, based on criteria listed in the grant announcements, were performed before the grants were awarded.

Amtrak

As a further demonstration of the unaffordability of the passenger rail improvement and high-speed rail development initiative, some critics like to use Amtrak as target of their angst, warning that the end result of all this *effort will be no better than what Amtrak presently provides*. For example, on Valentines Day (February 14, 2011), Robert Samuelson wrote in the *Washington Post*:

“The administration would pay states \$53 billion to build rail networks that would then lose money . . . thereby aggravating the budget squeezes of the states or federal government. . . . Worse, the rail proposal casts doubt on the administration’s commitment to reducing huge budget deficits . . . How can it subdue deficits if it keeps proposing big spending programs? . . . Secretary Ray LaHood has estimated the administration’s ultimate goal—bringing high-speed rail to 80 percent of the population—could cost \$500 billion over 25 years. For this stupendous sum, there would be scant public benefits . . . How do we know this? History for starters . . . Amtrak . . .”

In attacking Amtrak, two of Mr. Samuelson’s main complaints were that:

(a) Amtrak has historically low ridership, and (b) it produces no profits (it receives subsidies).

While this document is not intended to be a defense of Amtrak, it is important that people understand that even today the Amtrak of old is not the vision for passenger rail and especially high-speed rail to come. The vision the president outlined when he first launched this initiative nearly two years ago “. . . is to transform the nation’s transportation system, by rebuilding existing rail infrastructure while launching new high-speed passenger rail services in 100–600 mile corridors that connect U.S. communities.” This effort will be similar to how interstate highways and the U.S. aviation system were developed in the 20th century through a partnership between the public sector and private industry, including strong federal leadership.

It is important that people recall that Amtrak has had to operate largely at the mercy of the nation's freight rail system over routes that were for the most part selected by Congress, and has not until recently been either reliable or competitive with other transportation alternatives.

But as noted in Amtrak's May 10, 2011 press release, "Amtrak ridership surged in April to be the best April on record and extends the national passenger railroad's streak to 18 consecutive months of year-over-year ridership growth.

"This strong performance is part of a long-term trend that has seen Amtrak set annual ridership records in seven of the last eight fiscal years, including more than 28.7 million passengers in FY 2010.

Comparing the first seven months of FY 2011 (October–April) to the same time period in FY 2010, national Amtrak ridership is up 6.5 percent so far this fiscal year and all three major business lines are showing gains: the Northeast Corridor up 4.8 percent, state-supported and other short distance corridors up 8.1 percent, and long-distance trains up 5.6 percent.

Northeast Highlights

On the Northeast Corridor, ridership for the high-speed Acela Express service saw a 2.9 percent increase in April 2011 vs. April 2010. In addition, April was the best month ever for the popular Northeast Regional service carrying a record 692,376 passengers, which represents a 13.3 percent increase over the same month last year.

Central Highlights

Ridership on Midwestern routes remains strong with significant increases in April 2011 over April 2010. The Chicago hub experienced steep corridor ridership gains as led by the Blue Water (Chicago–Port Huron) with a 28.4 percent increase; Illini/Saluki (Chicago–Carbondale) trains up 21 percent; the Wolverine Service (Chicago–Detroit/Pontiac) up 14 percent; and the Hiawatha Service (Chicago–Milwaukee) increased seven percent.

West Highlights

Strong ridership continued in April 2011 on all of the three California state-supported routes when compared to April 2010. The Capitol Corridor (Auburn–Sacramento–Emeryville/San Francisco–San Jose) was up 10.8 percent; the San Joaquin (Oakland/Sacramento–Bakersfield) up 18.3 percent; and the Pacific Surfliner (San Diego–Los Angeles–Santa Barbara–San Luis Obispo) up 8.2 percent over the same month last year. Ridership on the Amtrak Cascades (Eugene, OR–Seattle–Vancouver, B.C.) also was up 6.9 percent, an increase that comes after months of severe weather related service disruptions on this route.

National Highlights

Among the 15 overnight long-distance Amtrak trains, ridership is up 7.7 percent in April 2011 vs. April 2010, with the largest percentage gains posted by the Silver Star (New York–Tampa–Miami) up 16 percent; the Lake Shore Limited (New York–Chicago) up 15.3 percent; and the Southwest Chief (Chicago–Los Angeles) up 14.9 percent.

[The vision] "is to transform the nation's transportation system, by rebuilding existing rail infrastructure while launching new high-speed passenger rail services in 100–600 mile corridors that connect U.S. communities."

Factors contributing to the continuing success of Amtrak include strong Easter holiday travel in April; high gasoline prices which have trended higher; continued growth in business travel on the high-speed Acela Express trains with Wi-Fi service; the increased appeal and popularity of rail travel; and effective marketing campaigns.

The streak of 18 consecutive months of year-over-year ridership growth began in November, 2009.”

So the notion of more of the same is not valid, neither is it valid to argue that the conditions that exist today will be the conditions that will exist 25 or even 50 years from now. The construct Mr. Samuelson envisions for this new element in our nation’s transportation system bears no resemblance to what is actually being proposed. In fact, on May 19, 2011, Amtrak even announced it is pursuing private investment to support Northeast Corridor high-speed rail plans. No word yet from Mr. Samuelson.

Regarding the issue of Amtrak profitability and subsidies, James Caston, a former member of the Amtrak Reform Council, had it right in his December 2001 speech in Philadelphia when he said:

“If the airlines cannot be profitable after 75 years of federal investment in a state-of-the-art infrastructure and command-and-control system, how is Amtrak supposed to operate profitable, customer-friendly passenger trains over a 22,000-mile network of privately financed 19th-century railroad alignments using a 19th-century signaling technology and 19th-century grade-crossing protection that limits trains to an effective average speed of 48 miles per hour?

You wouldn’t dare pass a law ordering a bunch of managers to operate a profitable shoe-manufacturing business in a 19th-century factory building using technology built in 1920 while paying their employees 21st-century wages. So why would you pass a law ordering a bunch of managers to earn a profit carrying railroad passengers according to those same rules?

Here is how I answer that question. The answer has several elements:

- First, ‘profitability’ is no more achievable for passenger trains than it is for airliners and private autos (are private cars ‘profitable’ to their owners when they carry an average of 1.2 passengers per trip and spend about 20 out of each 24 hours sitting idle in a garage or parking lot?) The question of ‘profit’ in for-hire passenger carriage is dangerously misleading and irrelevant. The economic value generated by passenger transportation historically is captured by the businesses served by the transportation network, not by the carriers.

The question of ‘profit’ in for-hire passenger carriage is dangerously misleading and irrelevant. The economic value generated by passenger transportation historically is captured by the businesses served by the transportation network, not by the carriers.

- Second, passenger trains require federal infrastructure investment in a modern right of way and a modern command-and-control technology just as cars and airplanes do. Until the federal government funds a meaningful, modern and relevant system of passenger-train tracks, signals, and stations, no comparison between passenger trains and cars or airliners is valid. To be competitive, trains must first be provided with the means of competitive success, as cars and airplanes were. And as shoe factories are.

- Third, the stupidest thing ever done in the name of a successful U.S. passenger-rail system was Congress's 1997 mandate that Amtrak become profitable in five years on the American railroad industry's network of obsolete, congested, low-speed freight-train routes.
- Fourth, the second-stupidest thing was when Amtrak management agreed to go along with Congress's stupidity. Not until the spring of 2001 did Amtrak's CEO begin publicly hinting that the nation might need to invest in better railroad tracks outside the Northeast Corridor.

Thus, Congress and Amtrak colluded to ignore reality and finesse the infrastructure issue by tacitly accepting the idea that Amtrak's trains could somehow compete with the nation's advanced highway and airway systems without a federal investment in advanced railroad tracks. It cannot be done. Trains, like cars and airplanes, cannot perform effectively on an obsolete infrastructure."

And that is exactly what the president's passenger rail improvement initiative (which was actually started in the Bush Administration with the passage of the Passenger Rail Improvement and Investment Act (PRIIA) of 2008) intends to address.

International Comparison

The *Washington Post* jumped into the middle of the "we can't afford passenger rail improvements" monologue on February 17, 2011, stating that:

". . . of all the reasons to build high-speed rail in the United States, keeping up with the international Joneses may be one of the worst. In fact, experience abroad has repeatedly raised questions about the cost-effectiveness of high-speed rail . . . China would seem to be an especially dubious role model."

The dubious nature of China as a role model is beside the point. The real heart of the issue is that intercity passenger and high-speed rail will be part of a highly integrated passenger transportation system that will reach at least 80 percent of the nation's population.

It is true that the Chinese government recently forced a shake-up in the management of their high-speed rail project. Things like that happen all the time, particularly in a highly charged environment where every thought or deed is subject to great scrutiny, and politicians are concerned about perception (not to suggest that perceptions don't matter). Give the Chinese government credit for stepping in to address a problem and take corrective measures.

The really remarkable thing about the Chinese high-speed rail initiative is that it is being used as a tool to promote economic development across the nation, making it possible for people in one part of the country to get to another part more quickly, more economically, and more reliably than by building more roads or relying on an unreliable national airline.

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As noted by critics, the Chinese are spending \$100 billion and have so far built over 8,358 km (about 5,193 miles) of high-speed rail lines. That works out to be about \$19.3 million per mile, far less than what it costs to build a mile of interstate highway or airport runway in the United States. By 2020, the Chinese hope to complete 16,000 km of high-speed rail at a cost of about \$295.1 billion, according to the Chinese Rail Ministry.

The charge that the train is too expensive for “the ordinary Chinese worker” is based on the fact that the fare for a luxury sleeping berth on an overnight Chinese high-speed train is reportedly \$352, comparable to the average airfare between the same two cities. In reality, the average fare on the Chinese high-speed rail service is \$10. Perhaps that too may be beyond the reach of ordinary Chinese workers today, but if that truly is the case, then someone needs to explain why in its first year of operation, the Wuhan-Guangzhou high-speed rail line carried 20.6 million passengers.

It's only speculation, but perhaps one of the reasons that the “ordinary Chinese worker” of today can't afford the average \$10 one-way high-speed rail fare is that the Chinese economy has not yet provided the growth and lift needed to raise the wages of ordinary Chinese workers to a level even comparable with their western counterparts. By using high-speed rail as a tool to propel economic growth—to connect labor pools with job opportunities and to foster economic development away from the current dense urban centers—the Chinese government intends to promote a higher living standard for ordinary Chinese workers. To that extent, the Chinese high-speed rail initiative is quite visionary . . . looking ahead to serve the needs of a future generation.

The other amazing feature of the Chinese experience is that they were able to design, build, and make operational 5,193 miles of high-speed rail in just five years. In the United States, it takes nearly that long just to complete the environmental impact study for even the most meager of infrastructure projects.

The president's reference to the successful presence of high-speed rail in Europe and Asia has nothing to do with “keeping up with the International Joneses.” Moreover, it underscores the notion that building and operating high-speed rail is within reach and is practical . . . just look at what has been achieved in other places in the world.

As to the “cost-effectiveness of high-speed rail,” the world experience, particularly in France, Japan, and now increasingly in the United Kingdom, suggests that as an alternative to building more highways or airports, and as a means of controlling future greenhouse gas emissions, both improvements to conventional passenger rail and the development of true high-speed rail, especially along both the East and West coasts, would indeed be very cost-effective alternatives.

In March, 2009, the World Bank on-line newsletter “Infrastructure Investment” wrote:

“In a recent report, the McKinsey Institute argued that America's poor infrastructure is holding back its economic development. The top economist at the World Bank, Justin Lin, appears to agree. Earlier this week Lin said playing catch-up with China's infrastructure investments would do the United States good, Bloomberg reports: ‘China averaged 9.6 percent economic growth from 1979 to 2002, as it quintupled the size of the country's highway system to 25,000 kilometers (15,000 miles),’ he said. The U.S. could profit from following China's lead, Lin said, noting the fastest train in the U.S., Amtrak's Acela, took 2 hours and 46 minutes to bring him from Washington to New York this morning. In China, he said, a high-speed train would make the trip in an hour.”

Add one more voice to those in favor of infrastructure investment: Mary Meeker, financial analyst at Morgan Stanley and author of a new nonpartisan report called *USA Inc.*, observes (that):

“In recent decades, the United States has been spending less on productive investments, such as infrastructure and education, and more on areas of preservation, such as health care. That combination has caused America to lose its innovation edge.”

Expansion of Government Spending

Unfortunately, Ms. Meeker’s logic likely would not impress Thomas Sowell who wrote in the February 23, 2011 *Albany* (New York) *Herald*:

“Nothing more clearly illustrates the utter irresponsibility of President Obama than his advocacy of high-speed rail.

Spending for high-speed rail when the national debt is exceeding the total value of our annual output is world-class chutzpa. It is spending that is speeding us toward bankruptcy . . . High-speed rail is simply another set of lofty words to justify continued expansion of government spending . . . just like investment in education—a code word for more government spending.”

But for our money, both are worthy investments and reflect nothing more than government fulfilling its responsibility to the citizenry. Our nation has no future without an educated citizenry . . . and perhaps no way to maintain an affordable, integrated transportation system without improved intercity passenger and high-speed rail.

On the subject of affordability, George Will in the February 27, 2011 *Newsweek* said:

“There is widespread derision of the President’s “damn-the-arithmetic-full-speed-ahead high-speed rail proposal . . . Although prostrate from its own profligacy, [California] will sink tens of billions of its own taxpayers’ money in the 616-mile San Francisco-to-San Diego line. Supposedly 39 million people will eagerly pay much more than an airfare in order to travel slower. Between 2008 and 2009, the projected cost increased from \$33 billion to \$42.6 billion. . . . Characterized as optional and irrational spending—meaning borrowing—this is blinkered ideology.”

But the derision Mr. Will should refer to is the fact that these criticisms, as we noted in our introduction, are all coming from a small group of individuals who are engaged in a campaign in which they repeat each other’s mantra until it seems that everyone is saying and believing the same thing. They mouth the same fictions that the CATO Institute, the Heritage Foundation, and the Reason Foundation have been mouthing for the past two years in an effort to defeat the administration’s intercity passenger and high-speed rail initiative while at the same time attempting to advance continued subsidies for highway construction and maintenance.

It is unfortunate that these groups would wish to frame the debate in this fashion, particularly when national organizations and leaders recognize that this is not an “either/or” debate. This is a debate over providing Americans a third viable transportation option that will actually enhance the ability of travelers and shippers to wring better value out of what should be a highly integrated, wisely used transportation system.

There is growing evidence that in fact passenger rail can and is generating surplus revenue “above the rails.” With an appropriate commitment to infrastructure development by the public sector in partnership with the private sector, passenger rail that is part of a highly integrated passenger transportation system would benefit the United States in many ways, not the least of which would be to create good, well-paying jobs and help restore the nation’s economic competitiveness.

In the first place, the likelihood of high-speed trains spanning the U.S. is even more than the administration envisions (See www.dot/fra/highspeedrail/vision.gov). The plan calls for at least 13 corridors, principally along the East and West Coasts and a hub extending out in all directions from Chicago, with a combination of high-speed trains in denser corridors, and new or improved, more frequent and reliable conventional service in feeder corridors. And like the interstate highway system, which began more than 50 years ago with a modest stretch of four-lane asphalt in Eastern Missouri at a cost quite a bit less than the ultimate interstate highway system of today, the national passenger rail system will require years to build and much more than the initial \$66 billion, which is the actual amount the administration has requested since the passage of PRIIA in 2008.

As for the ridership forecasts for the California project about which Mr. Will was so critical, a letter to the California General Assembly in August 2010, from the California High-Speed Rail Authority noted that following a careful review of the ridership forecast by an independent third party, “We therefore particularly appreciate the clear statement by Professor Brownstone that the ITS team ‘did not find any indication of bias on the part of MTC, Cambridge Systematics’ (CS) . . . After careful review of the ITS Final Report, we conclude that CS was provided a direct and credible response to each technical point raised and that the ridership model has been, and continues to be, a sound tool for use in high-speed rail planning and environmental analysis. As the Authority continues to update and refine its ridership analysis the input of ITS and other interested parties as well as future per review will help contribute to improving our work.”

Additionally, the ultimate cost of a project is, not surprisingly, a matter that is frequently difficult to predict. On most infrastructure projects the factors known at the time of the preliminary estimate are significantly less complicated than those factors that become realized as the project goes through its various stages including final engineering. This is a matter about which the California High-Speed Rail Authority has been very transparent.

Southwest Airlines, for one, has made it clear that there are huge advantages for them to have high-speed rail built in California. Among the advantages Southwest sees is that high-speed rail will allow them to get out of the money-losing, overly congested regional air service business.

The intercity passenger and high-speed rail initiative was launched (by Republicans) for specifically the reasons cited by the current administration. America is growing increasingly uncompetitive with the rest of the developed (and in many cases even the developing) world. We will only pull ourselves out of the current situation by creating the means to make our nation more competitive. High-speed rail and the renewal of the nation’s rail networks are just the kinds of infrastructure projects required of these times and circumstances.

The only things gained by waiting are all the bad things this initiative is designed and intended to address, not the least of which is the cost of waiting. Can you imagine what would have happened if President Eisenhower had waited for a “better time” to begin building the nation’s interstate highway system?

Critics of the passenger rail initiative are using a dangerous tactic of attempting to confuse long-term capital investment with short-term operational expense. It's easy to do because unlike businesses in the private-sector, and for that matter most states, the federal government does not keep separate its long-term capital investments and its short-term operational expenses in its annual budgets. Everything is tallied as an immediate expense even when it is a capital investment with a long-term construction schedule and an even longer-term service life. This is why national leaders like the former governors of California and Pennsylvania and national organizations like the U.S. Chamber of Commerce are calling for budget reform that would create for the federal government what most states and virtually all entities in the private sector have: capital budgets.

This is why national leaders like the former governors of California and Pennsylvania and national organizations like the U.S. Chamber of Commerce are calling for budget reform that would create for the federal government what most states and virtually all entities in the private sector have: capital budgets.

To compete in the future, the United States must invest now. Based on the experience of other nations, one of the best investments America can make for its future is to make passenger rail, including high-speed rail, an integral part of its transportation infrastructure. The longer the nation waits, the more expensive the project becomes. The time to reinvigorate America's intercity passenger rail system and build high-speed rail is now. It will take at least 20 years to complete, but it will be a bargain compared to what it may cost if we wait 10 or 20 years to begin.

CHAPTER III

No Support for High-Speed Rail

In the introduction of this paper readers were told of a small group of think-tanks and others who organized the anti-intercity passenger and high-speed rail campaign addressed by this paper. One of the favorite tactics of the small anti-intercity passenger rail campaign is to circulate and repeat their individual criticisms, as if to leave the impression that there is massive opposition at every turn, on every issue related to this initiative.

As referenced in the introduction of this paper, Ron Utt of the Heritage Foundation penned a guest editorial in the April 12, 2011 *Innovation Briefs* describing the campaign launched by this coalition that included the Heritage Foundation, the Reason Foundation, the CATO Institute among others. In part Utt wrote:

“The success of this effort illustrates how a small number of dedicated people with limited money but lots of energy and commitment can take on powerful forces and bring them to heel.”

Realizing this situation, it’s no wonder that the bulk of criticisms leveled at the passenger rail improvement initiative are so repetitive, sweeping in their terms, vilifying in their content, but lacking in either their veracity or substance.

Referendum on High-Speed Rail

Examples of such statements (parenthetical statements added for clarification) include:

“. . . Mr. Obama spread the money among 13 corridors around the country. But there is a problem: to the extent that the November 2 election was a referendum on those plans, voters rejected them . . . This blunt refusal to heed the fresh mandate of Ohio and Wisconsin (and later Florida) voters seems hard to justify. (Other governors have asked the administration to send the money their way) . . . If that happens, the story may have a happy ending—of sorts . . . Mr. Obama should have concentrated rail money there (in the Northeast Corridor) in the first place, rather than trying to spread it to areas of the country that may not need it and, we now know, do not want it.” (*Washington Post* editorial, November 17, 2010, “Not All Aboard: Mr. Obama vs. the States on High-Speed Rail”)

“In 2008, (California’s) voters approved a \$9.95 billion bond issue to pay about a quarter of the total projected \$43 billion cost of a statewide high-speed system. Events since then, however, suggest that this grand plan is still a bit half-baked.” (*Washington Post* editorial, January 12, 2011, “Hit the Brakes: The Questionable Rush to Build a High-Speed Rail System in California”)

For the record, using the California High-Speed Rail Authority’s own words, here is the actual situation regarding the California project’s plan:

FACT SHEET: December 2009 Business Plan Report to the Legislature

A CREDIBLE COST ESTIMATE BETTER EXPRESSED
IN TERMS OF YEARS OF CONSTRUCTION RATHER THAN TODAY’S DOLLARS

Previously, the cost of the project had been described in terms of the current year. But since we are not building it in the current year, that does not accurately reflect the cost for the project

in the years in which we will build it. Now, for the first time, the project's cost is expressed in years-of-expenditure (YOE) dollars, providing a much more credible estimate.

In 2008, the cost of the Anaheim-to-San Francisco system was estimated at \$33.6 billion (in 2008 dollars).

Updated cost estimate (also in 2008 dollars) is \$34.9 billion; due to changes in track alignment and structural needs.

Using year-of-expenditure dollars to account for inflation and more accurately reflect the financing needs of the project over the life of when it will actually be constructed, the updated cost estimate for the San Francisco-to-Anaheim initial high-speed rail system is \$42.6 billion in year-of-expenditure dollars.

A VIABLE FINANCE PLAN TO FUND THE PROJECT'S CONSTRUCTION

Bolstered by the unanticipated American Recovery and Reinvestment Act, the state bond dollars approved by California voters, and a new president publicly eager to help build high-speed rail networks in this country, the financial plan lays out a realistic scenario for paying for the system with a combination of state, federal, local, and private funds.

- State funding: \$9 billion from Proposition 1A (used to leverage additional investment)
- Federal funding: \$17–19 billion (ARRA, other federal loan programs, transportation appropriations)
- Local funding: \$4–5 billion (in right-of-way, parking fees, transit-oriented developments, contributions)
- Private funding: \$10–12 billion (public-private partnerships, vendor financing, availability payments, etc.)
- Total: \$45 billion

RIDERSHIP SCENARIO THAT SHOWS PROFITABILITY

Through its environmental review the Authority is pursuing a scenario of lower ticket fares and larger ridership in order to study the broadest possible environmental impacts. For the purposes of this business plan, we look at a scenario that:

- Sets average ticket prices at 83 percent of airfares over the same distances
- Projects 41 million riders per year in 2035
- Shows annual revenue of \$2.87 billion in 2035

Sooner, in the first year of planned operation, 2020, the scenario projects:

- 13.5 million riders
- Revenue of nearly \$1 billion (\$950 million)

Michael Barone, in a *Washington Examiner* op/ed (“High-Speed Rail Is a Fast Way to Waste Taxpayer Money”) on January 18, 2011 claimed that:

“Walker argued that Wisconsin didn’t need \$810 billion for a 78 mile line between Madison and Milwaukee because there’s already a transportation artery—I-94 . . .”

In an effort to demonstrate a lack of support for the president’s high-speed rail initiative in Congress, Michael Barone, (“Is High-Speed Rail the Answer?” February 2, 2010, *Washington Examiner*) suggested that:

“If Congress were serious about promoting high-speed rail, it would prohibit environmental and eminent domain lawsuits that could delay projects, as it did in the 2006 border fence bill.”

On February 27, 2011, George Will, writing in *Newsweek* and repeating his November theme of the *Washington Post* said:

“Four newly-elected Republican Governors have rejected federal grants to support their states’ passenger rail development initiatives.”

Similarly, Ronald Utt of the Heritage Foundation (*Washington Examiner*, “Obama Busts the Budget for Amtrak and Livability, March 2, 2011) wrote:

“Lucky for America there is no chance any of this will be enacted. In the weeks and months leading up to the budget’s release, the governors of three states rejected the president’s Amtrak/HSR plans for their states and sent \$3.7 billion back to Washington.”

On April 1, 2011, Ken Orski in his *Innovation Briefs* made the following over-the-top comments:

“A well-intentioned but quixotic presidential vision, to make high-speed rail service available to 80 percent of Americans in 25 years, is being buffeted by a string of reversals . . . Called by congressional leaders ‘an absolute disaster,’ and a ‘poor investment,’ the president’s ambitious initiative is unraveling at the hands of a deficit-conscious Congress, fiscally-strapped states, reluctant private railroad companies, and skeptical public . . . A study conducted by the libertarian think tank, the Reason Foundation, convinced Governor Scott that the project could involve serious cost overruns and the risk of continuing operating subsidies . . . In the face of fierce opposition that developed in the wealthy Bay Area communities lying in the proposed path of the rail line, the sponsoring agency . . . decided to start construction in the sparsely populated and economically depressed Central Valley . . . The decision was spurred by demands from the Obama Administration that its \$3.6 billion grant result in a rail segment that has ‘operational independence’ . . . quickly derided by critics as a ‘railroad to nowhere.’ . . . Its future, as indeed the fate of the entire \$3–\$68 billion venture is shrouded at this point in uncertainty . . . Capitol Hill observers give the high-speed rail program only a small chance of obtaining additional congressional appropriations in FY 2012 and beyond. A March 15 report in which the . . . House Committee on Transportation and Infrastructure discusses its view of the forthcoming fiscal year 2012 transportation budget, the Obama Administration’s proposed \$53 billion high-speed rail program is not even mentioned.”

As is clear, there are specific, over-drawn extrapolations in each of these statements. For example, they suggest that because three governors (one of whom would later reapply for funding) who campaigned against rail improvements in their respective states and won, all governors are against federal passenger rail improvement funding and all voters everywhere also oppose the federal initiative.

Even the most basic understanding of logic would tell the casual reader that this construction does not hold up. Plus, there are ample and recent polls that show broad public support for the federal passenger rail improvement initiative.

Public Support

While three Governors (not four as suggested by George Will) rejected federal railroad improvement grants, claiming that the citizens of their respective states would be burdened with millions of dollars of cost overruns and operational subsidies— notions that are unsubstantiated but loudly professed by entities like the Reason Foundation, Wendell Cox, Robert Samuelson and the like—these Governors expressed a strong desire to redirect the same money to build new roads, update port facilities, and add new runways, which in many cases are likely to burden their taxpayers with even greater cost overruns and operational subsidies.

In the case of Florida, where, with the nudging of the Reason Foundation, the gubernatorial candidate argued that accepting the federal funding would straight-jacket taxpayers into at least a \$3 billion subsidy, private-sector interests had stepped forward to assume the full costs of the project beyond the federal funding and state financing that was previously approved by the state legislature as well as cover any operating losses that might occur. In early March, the state department of transportation released a study done by an independent consultant that showed the proposed first leg of the proposed high-speed rail system would generate a \$10 million surplus in its first year of operations, and that the surplus would grow to more than \$26 million annually by the 10th year of that leg's operation.

To date, 23 states (excluding the three that returned theirs) have received rail stimulus funding, and each of them has made every effort to capture all or a portion of the more than \$3 billion Florida, Wisconsin and

Nearly two-thirds of American adults (62 percent) said they would definitely or probably use high-speed rail service for leisure or business travel if it were an option.

Ohio returned to the Federal Railroad Administration following the governors' denouncement of the rail initiative. And in a real twist of irony, Governor Walker of Wisconsin has reapplied for a portion of the funding he turned back.

Probably one of the most telling measures of public support for passenger rail lies in the fact that Amtrak is enjoying the highest levels of ridership in its history. Additionally, the BizTimes Daily on December 1, 2010 reported a poll commissioned by the American Public Transportation Association (APTA) showing that:

“Nearly two-thirds of American adults (62 percent) said they would definitely or probably use high-speed rail service for leisure or business travel if it were an option.

The survey, taken among 24,711 adults, also asked how important various factors would be in choosing high-speed rail service. Ninety-one percent of respondents said high-speed rail should offer shorter travel times compared to driving to their destinations; 91 percent said the rail service should be less expensive than flying; 89 percent said it should be less expensive than driving; and 85 percent said the rail service should integrate with local public transit so they could avoid using rental cars and cabs, and paying parking fees.”

Enters “A Due Diligence Report”

Written in an effort to derail the 2008 California referendum to approve a nearly \$10 billion bond issue for the state's high-speed rail initiative, the Reason Foundation in collaboration with Citizens Against Government Waste and the Howard Jarvis Taxpayers Foundation, underwrote an exhaustive policy study

authored by Wendell Cox and Joseph Vranich, “The California High-Speed Rail (CAHSRA) Proposal: A Due Diligence Report.” One of the more dramatic proclamations of “A Due Diligence Report” was:

“Support for HSR has evaporated among potential investors and in state legislatures that have felt the brunt of citizen displeasure. With history as a guide, and as HSR environmental impacts become better understood, similar opposition could develop within California’s urban, suburban and rural communities located along the CAHSRA’s proposed system,”

California voters actually gave the bond issue a solid vote of approval. And, a July 2010 opinion poll conducted by two California research firms (Fairbank, Masin, Maulin, Metz & Associates and Public Opinion Strategies) found:

“Some 76 percent of Californians continue to support the project, with 34 percent saying they would like to see the project move forward as quickly as possible . . . only 13 percent of those polled opposed the project.”

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More Support for the Passenger Rail Initiative

While the Governors in Ohio, Wisconsin and Florida were returning their states’ grants to the FRA, 23 other governors were racing to apply for these newly available funds, hoping to expedite the passenger rail programs in their respective jurisdictions. Additionally, a delighted bipartisan delegation of Congressional representatives from the Northeast has informed Secretary LaHood of their eagerness to obtain all or most of that funding to accelerate development of the Northeast Corridor.

The notion that there is “no support” for passenger rail improvement is undermined by the fact that while the chairmen of the House Transportation and Infrastructure Committee (T&I) and its subcommittee on Railroads, Pipelines, and Hazardous Materials have been critical of the manner by which the administration has allocated the rail improvement funds, these same leaders have set about finding creative ways of financing the initiative in the hope of encouraging greater private-sector support and leadership. And even though the committee chairman, John Mica of Florida, would have preferred a different distribution of the money, he was one of the first to take newly elected Florida Governor Scott to task for his rejection of the federal grant, especially in light of an independent study done for the state department of transportation that showed the first leg of the Florida corridor would generate a budget surplus in its first year of operation and thereafter.

As for the T&I Committee’s comments regarding funding for intercity passenger and high-speed rail in 2012, the committee report, “Views and Estimates for Fiscal Year 2012” discusses on pages 19, 20 and 21 the administration’s request of \$8.046 billion for that year and encourages that efforts be made to entice the private sector railroad industry to play a more active role—hardly a death knell for the administration’s signature transportation agenda item.

Additionally, Congress, in passing the final continuing resolution for FY 2011 funding, left in place most of Amtrak’s funding as well as a substantial portion of the unobligated high-speed and intercity passenger funding appropriated under the American Reconstruction and Recovery Act (ARRA) of 2009.

[D]uring the spring of 2011 a new High-speed Rail Congressional Caucus was organized, and according to an April 6, 2011 news release from the U.S. Department of Transportation, there were bi-partisan letters of support submitted by delegations from 24 states seeking a portion of the \$2.4 billion that Florida returned to the department. In all, there were 90 project submissions totaling over \$10 billion.

As an aside, during the spring of 2011 a new High-Speed Rail Congressional Caucus was organized, and according to an April 6, 2011 news release from the U.S. Department of Transportation, there were bi-partisan letters of support submitted by delegations from 24 states seeking a portion of the \$2.4 billion that Florida returned to the department. In all, there were 90 project submissions totaling over \$10 billion.

CHAPTER IV

Rail To Nowhere

One of the critical measures for determining the eligibility of a grant application to advance passenger rail service in the United States is the concept of “Operational Independence.” As defined by the Federal Railroad Administration (Federal Register, Vol. 75, No. 126, page 38347, section 3.5.2), “All Service Development Programs that are proposed to be advanced using . . . program funding must have operational independence. A Service Development Program is considered to have operational independence if, upon being implemented, it will result in a minimal operating segment of new or substantially improved high-speed or intercity passenger rail service that demonstrates tangible and measurable benefits, even if no additional investments in the same service are made.”

Similar requirements are imposed on projects funded through the Federal Transit Administration and the Federal Highway Administration.

Nonetheless, that did not stop critics from attacking the 65-mile stretch of track in the Central Valley that will connect to existing Amtrak service at each end (there by creating a through connection for the future high-speed rail line) nor the 89-mile stretch from Orlando to Tampa, Florida.

Florida

For example, George Will (*Newsweek*, February 27, 2011) wrote:

‘The project in Florida is characterized as an 84-mile, \$2 billion program paralleling I-4, with a projected ridership of 3 million.’

The projected ridership for this first leg of a proposed system that will ultimately connect Tampa to Miami is equivalent to the current ridership on Amtrak’s Acela in the Washington–Boston corridor. Additionally, if one compares the cost of building this 84-mile high-speed rail section to, for example, the \$2 billion to \$3 billion cost of the recently opened Inter-County Connector, a 17 mile section of four-lane highway in the Washington, D.C. suburbs, one quickly realizes what a great buy those 84 miles of high-speed rail will be.

California

In a similar vein, Michael Barone, writing in the *Washington Examiner* (“Is High-Speed Rail the Answer?”, February 2, 2010) observed:

“Theoretically the high-speed train could get you from Los Angeles to San Francisco in two hours and 45 minutes—the time it currently takes the Acela to get from Washington to New York. That would be nice—except then you’d have to get to wherever in the metro LA or Bay Area that you wanted to go, and the chances are it would be an

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hour or more drive from the train station. Only a small percentage of LA-bound travelers are headed to downtown LA and not that much higher a percentage of Bay area-bound travelers are headed to downtown San Francisco.”

Mr. Barone went on to level an additional critical “rail to nowhere” comment suggesting that it might be more sensible to site high-speed rail terminals at airports rather than in old downtown-oriented rail stations; airports already have plenty of parking and rental car operations.

The objective is a multi-modal passenger transportation system that enables the user to exercise choice, and not be confined to only one or two options when they wish or need to travel.

As is the case with virtually all high-speed systems in the world, the high-speed system in the United States will be connected, either directly, or through other elements of an integrated transportation system, to the major national and international airports in their respective corridors. The objective is a multi-modal passenger transportation system that enables the user to exercise choice, and not be confined to only one or two options when they wish or need to travel.

It’s difficult to understand Barone’s perspective, unless one is totally oblivious to the current state of both roadway and airway congestion in California, and the lack of options for building more highways and airspace to accommodate the current and expected demand for mobility and access in the Los Angeles/San Francisco corridor. Even in its present condition, intercity passenger service in the California corridor is experiencing strong ridership according to Caltran’s “Performance Measures For The Quarter Ending December 31, 2010”:

“1. Ridership for October-December 2010 was 100.9% of the seasonally adjusted target. Ridership increased by 59,069 (4.8%) from the same quarter in the prior year. Ridership on the Pacific Surfliner Route was up 4.4%; on the San Joaquin Route up 3.4%; and on the Capitol Corridor up 6.2%.

2. With 2006 total ridership as a baseline (4,773,813 riders), 2008 target is 104% of baseline; 2009 target is 108% of baseline; 2010 target is 112% of baseline; 2011 target is 120% of baseline; and 2012 target is 128% of baseline (or 6.110 million riders).”

And as we read in chapter II of this paper, Amtrak reported in May, 2011 that:

“Strong ridership continued in April 2011 on all of the three California state-supported routes when compared to April 2010. The *Capitol Corridor* (Auburn–Sacramento–Emeryville/San Francisco–San Jose) was up 10.8 percent; the *San Joaquin* (Oakland/Sacramento–Bakersfield) up 18.3 percent; and the *Pacific Surfliner* (San Diego–Los Angeles–Santa Barbara–San Luis Obispo) up 8.2 percent over the same month last year.”

In its January 2011 report, “High-Speed Rail in America,” America 2050 “evaluated 7,870 miles of proposed high-speed rail corridors of less than 600 miles against data for variables that contribute to passenger rail ridership.” Of the corridors evaluated, only the Washington/Boston corridor received a higher rating for success over the Los Angeles–San Francisco corridor. The variables considered in this study included “population, employment, transit ridership, population and employment within areas served by transit, air ridership along the corridor, and highway congestions.”

A reality that many critics do not admit is that in both today’s transportation system and in the one anticipated when the actual high-speed rail network is integrated with the transportation system of 10 to

15 years from now, intercity passenger rail users will be able to get to the train without relying on their personal car and from the train to their desired destination without a car as well.

The January 12, 2011, editorial in the *Washington Post* (Hit the Brakes)—mentioned earlier in this paper—drew strong rebuttals suggesting that the *Post*'s perspective reflects either a misreading or misunderstanding of a report presented to the California General Assembly (and discussed elsewhere in this paper) by the California High-Speed Rail Peer Review Group, that reviewed the ridership projections and “business plan” for the proposed California High-Speed Rail Project.

Secretary LaHood Responds

Rather than dissect each line of the *Post*'s criticism as if this was the first response, here are offered the reactions and commentary of Department of Transportation Secretary Ray LaHood (whose response appeared in the *Washington Post* on January 15, 2011):

“The Jan. 12 editorial ‘Hit the Brakes,’ criticizing California’s high-speed rail plan, was short-sighted and parochial. If President Dwight D. Eisenhower had waited until he had all the cash on hand, all the lines drawn on the map, and all the naysayers on board, America wouldn’t have an interstate highway system. We stand at a similar crossroads today when it comes to high-speed rail

The *Post* creates a false choice between the Central Valley and other sections of the project that are not ready for construction. The Central Valley segment will connect to existing rail service at both ends of the line, improving passenger service even before other sections of high-speed rail are built. And perhaps most important, the project will put Californians back to work

. . . Focusing the total sum of our federal dollars in one project, as the *Post* suggests, is a poor strategy that will not serve our long-term goal of creating a national high-speed rail network.”

Similarly, Mark Ruetter, a fellow with the Progressive Policy Institute, offered the following reaction in a posting on the Institute’s website on January 14, 2011:

“One might expect, with a disastrous oil spill just behind us and gas prices predicted to soar to \$5 a gallon by 2012, that the *Washington Post* would address the Obama Administration’s alternative to oil-based transportation with nuanced understanding.

Sad to say the paper has instead served up an editorial full of misinformation about the administration’s high-speed rail project in California. The proposed 800-mile train system between southern California and the Bay Area has been in the crosshairs of House Republicans led by Jerry Lewis (R-CA), who has introduced a bill to force the return of \$2 billion in federal stimulus funds awarded to the project.

The *Post* has placed its prestige behind Lewis by calling for a halt to the project until its costs, route alignment, potential ridership, and other details are studied to some unspecified level that meets the paper’s approval.

To justify such a draconian proposal, much at odds with the prevailing bipartisan support for rail in the state, the *Post* characterizes the project as a flakey California ‘experiment’—a suggestion that’s pretty far removed from reality.

The railway is based on technology that’s been in operation for 46 years in Japan (where it has carried three billion riders without a single fatality) and has spread throughout Europe and

southeast Asia. China is committed to opening a dozen HSR lines equal in size and complexity to the California project.

The editorial says that ‘a series of skeptical blue-ribbon documents’ have called into question the financial viability of the system. ‘Most damning’ of these documents is a report by the California High-Speed Rail Peer Review Group calling official estimates of potential ridership so unreliable that they ‘offer little basis for proceeding.’

Those words would be damning if they weren’t yanked out of context. They come from a discussion of the methodology of the ridership study and the assertion by one consultant that, due to large ‘error bounds,’ the projections might or might not be accurate. Either outcome was equally possible.

The Review Group called on the California High-Speed Rail Authority to reexamine and refine the methodology, if needed. That’s it. There was no implication that the estimates were

cooked to favor the project, as the *Post* implies. In fact, the Review Group went out of its way to say that no forecasting model can predict 100 percent accuracy.

The editorial continues by describing the first segment of the route, going from Bakersfield north to the small village of Borden, as the ‘train to nowhere.’ This is plain nonsense. As explained at public hearings and on an internet posting by project CEO Roelof van Ark, the railway is not designed to terminate at Borden anymore than the Interstate Highway system planned to end in Missouri, where the first miles were laid.

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Stopping temporarily at Borden was decided because the environmental review was nearly complete and the line could connect to existing rail track, allowing the new line to have “independent utility” (as required by the California legislature) before construction resumed north to Sacramento and northwest to San Francisco.

The editorial is similarly disingenuous when it says that the system ‘has attracted zero private capital’ and has been ‘unable to guarantee any source—governmental or private—for almost half of the cost of completion.’

Rail consortiums in France, Germany, Japan, and Korea, as well as the U.S., have expressed interest in the project. China had told outgoing Gov. Arnold Schwarzenegger that it might underwrite California’s construction costs. But the project hasn’t yet reached the stage when companies have been invited to make bids.

If the *Post* read the Review Group report carefully, it would better understand why private capital has been reluctant to openly commit to the project. The demonstration of firm public sector financial commitments will be an absolute necessity prior to approaching sources of private capital, it stressed. In other words, investors won’t sink money into a project that’s under the threat of rescission by the likes of Rep. Lewis.

There’s more to suggest a willful ignorance of the facts pertaining to high-speed rail by the newspaper. For example, its statement that in much of the country passenger rail can’t compete with car travel by interstate highways.

That’s only true because Amtrak trains run at 50 mph averages. As Robert Cruickshank points out, trains that zip passengers between LA and San Francisco in under three hours—

or less than half the time it takes to drive between the cities on a good day—are going to change the way people travel.

The base projection of 65 million annual riders when the system is completed in 2030 may prove too low considering that California is expected to add 8-10 million more residents over the next 20 years. The Peer Review report says that the railway could ‘achieve high profits’ once it’s finished.

That’s a bonny prospect for Californians, even if it doesn’t fit the prejudices of the *Post*, which ends its editorial with the revealing comment that it’s probably only in its own backyard, the Northeast Corridor, where federal rail investment ‘makes sense at all.’”

Wisconsin/Ohio

Similar “rail to nowhere” charges were leveled at the Wisconsin and Ohio proposals to improve intercity passenger rail service. But a September 2010 report, “Connecting the Midwest,” prepared by the Wisconsin Public Interest Research Group, noted that the Madison/Milwaukee link was part of regional passenger rail network that would connect major economic centers from Detroit to Minneapolis to St. Louis through Chicago. Among the key findings of the report were:

- “▪ A completed Midwest high-speed rail network will create 57,000 permanent jobs and support 15,200 jobs during the ten years that it would take to construct the project. The Madison to Milwaukee line would boost Wisconsin’s economy enough to create nearly 13,000 jobs in the state by 2013.
- Traffic congestion costs major Midwest metropolitan areas more than \$10 billion annually in lost economic output. Midwest high-speed rail will reduce air travel by 1.3 million trips and car travel by 5.1 million trips per year by 2020, curbing congestion.
- An Amtrak passenger uses 30% less energy per passenger mile than a passenger car, reducing dependence on oil. The Milwaukee to Madison line alone would eliminate approximately 780,000 car trips per year over a 10-year period, saving 2.76 million gallons of gas per year.
- High-speed rail will give consumer more transportation options. Region-wide in the Midwest, 58% of Midwesterners, or 35 million people, would live within 15 miles of a high-speed rail station; 17 million would live within five miles of a station. More than one out of every four jobs in the region would be within five miles of a station. 52% of Wisconsinites would live within 15 miles of a station, and 58% of the state’s workforce would have a station within 15 miles of their workplace.
- The system would prevent 188,000 tons of carbon dioxide emissions each year by replacing less efficient car and plane travel. The amount is equal to the annual emissions of 34,000 cars.”

The president of Downtown Madison, Susan Schmitz, captured the essence of the project when she said, “High-speed rail will connect Madison to prosperity, better connecting our city and the state to markets and economic centers, and thereby growing our economy.”

Ironically (as noted earlier), after making such a big deal out of rejecting the federal stimulus funding in January

“High-speed rail will connect Madison to prosperity, better connecting our city and the state to markets and economic centers, and thereby growing our economy.”

2011, the Wisconsin governor turned around a few months later (April 2011) and requested federal funding for the portion of the corridor connecting Milwaukee to Chicago. That funding was not granted, but if it had been, it would have come from the grant rejected by the newly elected Florida governor.

The fact that the proposed right-of-way for the Madison/Milwaukee line is in the median of I-94 should have been seen as both a cost savings as well as a marketing bonanza by the Wisconsin governor. Drivers stuck in traffic would see right before their eyes the option they could have taken, and perhaps think twice about driving the next time they travel the corridor. Additionally, the intercity passenger service would be utilizing already available right-of-way connected at both ends to the public transportation services in Madison and Milwaukee, giving an affordable intercity/door-to-door option for individuals who either do not own, or would rather not drive their own automobile.

In a letter to Congress in April 2009, Transportation Secretary LaHood noted:

“Now, President Obama is ready to make a renewed commitment to the Nation’s travelers—not just to upgrade and maintain our aging highway and aviation systems, but to build a world-class network of high-speed passenger rail corridors.

We face a complex set of challenges in the 21st century—building a robust, green economy, gaining energy independence, reversing global climate change, and fostering more livable, connected communities. These new challenges require creative new transportation solutions. A combination of express and regional high-speed corridors, evolving from upgraded, reliable intercity passenger rail service, has proven effective in addressing many of these challenges around the world and in selected U.S. corridors.

The president is committed to bringing this successful approach to key travel corridors across America.”

CHAPTER V

Taxpayer Subsidy

In defense of British troops in the Boston Massacre trial of December 1770, John Adams is recorded as saying, “Facts are stubborn things; and whatever may be our wishes, our inclinations, or the dictates of our passions, they cannot alter the state of facts and evidence.”

Perhaps opponents of intercity passenger rail improvement initiatives would be well served by reflecting on Mr. Adams’ perspective when it comes to their criticism, and most especially their criticism that high-speed rail would require taxpayer subsidies.

All Transportation Modes Require Subsidies

The concern here is not with the possibility that high-speed rail might require some level of taxpayer subsidy. Most high-speed rail proponents readily agree that may be likely. The concern is that the criticism implies that, “unlike other transportation modes, high-speed rail will require taxpayer subsidy.” The reality is that all passenger transportation modes require taxpayer subsidy. So why should high-speed rail be singled out as an exception?

Take for example this statement from one of the members of the small group of highly vocal critics committed to an all-out campaign to kill efforts to improve intercity passenger rail, most especially high-speed rail:

“Would you pay \$1,000 so that someone—probably not you—can ride high-speed trains 58 miles a year? That’s what the Obama Administration’s high-speed rail plan is going to cost every federal income taxpayer in the country.

Florida’s system is expected to cost \$11 billion, or \$600 for every Florida resident, plus tens of millions more per year in operating subsidies, for which the average Floridian will take a round-trip only once every 15 years.” (Randal O’Toole, The CATO Foundation, June 18, 2009)

There is no factual basis for these claims. The total Florida project was described by the FRA as a 319 mile corridor with an estimated total cost of approximately \$8 billion (the first leg—Orlando to Tampa being 84 miles with a forecast annual ridership of approximately four million). The entire Florida corridor (including Tampa to Miami) has a current population of over 10 million.

Before Florida Governor Scott killed the project there were at least four private sector service providers proposing to take over the project, assume all liabilities for cost overruns and operating deficits if any occurred.

Nationally, current corridor plans (including Florida) total 6,749 miles of new and/or improved track at an estimated cost of \$300 billion, or an average cost per mile of \$45 million. Spread out over approximately 250 million taxpayers, that equals about 18 cents per mile/per taxpayer (presuming that the entire initiative is going to be government funded, and nobody is). Even if the final cost reached \$1 trillion, the per taxpayer cost

Even if the final cost reached \$1 trillion, the per taxpayer cost (again presuming the entire project is government funded) would only be 56 cents per mile for a one-time cost of \$1,215.00 per taxpayer for the total 6,749 miles.

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An Assault on the American Love Affair

Another example of the critics' hyperbolic rhetoric is found in an op/ed by Michael Barone ("High-Speed Rail Is a Fast Way to Waste Taxpayer Money," *Washington Examiner*, January 18, 2011):

"The Obama Administration is sending billions of stimulus dollars around the country for rail projects that make no sense and that, if they are ever built will be a drag on taxpayers indefinitely."

This is more of the same rhetoric from the folks who brought us "The California High-Speed Rail Proposal: A Due Diligence Report," that we discussed in the last chapter and will read more about in this and future chapters. For some reason these critics believe that passenger rail improvement is an all out assault on America's decades-old love affair with highways and automobile. It would appear that the critics of passenger rail are the only ones making that argument.

Passenger rail advocates on the other hand are arguing for an option that enables individuals to decide for themselves which mode of transportation best fits their travel needs at any particular time. By many measures, passenger trains, if allowed to be operated in a timely and reliable manner, can be and are very

By many measures passenger trains, if allowed to be operated in a timely and reliable manner, can be and are very competitive, and—in many cases—superior to either autos or airplanes.

competitive, and—in many cases—superior to either autos or airplanes. Prior to the all-out government-subsidized effort by certain interests in the '50s to destroy the passenger rail system, Americans were actually able to get to just about everywhere in America over a highly integrated network of privately owned intercity passenger trains, local transit, regional bus services, and public roadways.

Now, with the nation facing serious national security issues revolving around foreign oil supplies, soaring energy costs, serious environmental concerns, and overly congested roadways and airways, America is in dire need to re-integrate and rebalance its transportation system. Intercity and high-speed passenger rail is critical to that highly integrated system.

And talk about a drag on taxpayers, what could be worse than to continue the myth that the 18.6 cents per gallon gas tax is paying the full cost of building and maintaining the nation's roadways. Is it any wonder that many taxpayers are frustrated or jaded over government-sponsored transportation initiatives? They are being grossly misled by critics who have no qualms about distorting the facts.

Here is another example. This is Wendell Cox (the lead author of "A Due Diligence Report") offering the following perspectives in the January 31, 2011 edition of *National Review*:

"Among intercity transportation modes, only Amtrak is materially subsidized. User fees pay virtually all of the costs of airlines and airports, which (together with connecting ground transportation) link any two points in the nation within a day. The intercity highway system goes everywhere, and nearly all of it was built with user fees paid by drivers, truckers, and bus companies."

The "user fees" Mr. Cox refers to do not come close to covering the cost of either the highway system or the aviation system. According to the Congressional Budget Office (CBO) the federal gas tax, diesel fuel tax,

tire excise tax, and truck taxes pay less than half the annual cost of highway operation, maintenance and construction. Additionally, in recent years massive infusions from the general fund have been required to keep the highway trust fund solvent.

On the aviation side, the Government Accountability Office notes that the amount of general funds added to the aviation trust fund on an annual basis has grown steadily over the past decade even as the fund's uncommitted balance has declined.

There is no mode of transportation in the United States that does not require some level of "tax payer subsidy" in addition to whatever amount of "user fees" may be collected to support its infrastructure.

Continuing, Cox stated:

"Virtually everywhere high-speed rail has been constructed, financial liability has fallen to the taxpayer.

The same can be said for every other transportation infrastructure project virtually anywhere in the world.

Private Sector Interest

And George Will offered the following acerbic comments regarding taxpayer support for intercity passenger rail in his February 27, 2011 *Newsweek* editorial:

"The three governors want to spare their states from paying the much larger sums likely to be required for construction-cost overruns and operating subsidies when ridership projections prove to be delusional. Kasich and Walker . . . asked Washington for permission to use the high-speed rail money for more pressing transportation needs . . ."

Interestingly, before Florida Governor Scott killed the project there were at least four private sector service providers proposing to take over the project and assume all liabilities for cost overruns and operating deficits if any occurred. And on March 10, 2011 the Florida Department of Transportation (FDOT) released information contained in a study on ridership for the proposed Florida High-Speed Rail proposal prepared for FDOT by Wilber Smith Associates and Steer Davies Gleave, noting that instead of losing billions of dollars annually as had been projected by the Reason Foundation, the Florida project would actually generate a \$10.2 million operating surplus in its first year, and a \$28.6 million annual surplus 10 years later.

Travel Options

Marc Kilmer of the Maryland Public Policy Institute, offered the following perspectives during an interview on Maryland Public Radio on February 11, 2011:

"Train travel is inefficient for most Americans and must be subsidized heavily to stay in business . . .

\$99 for a two hours and 50 minute Acela ride between Washington and New York, \$49 for a three hour, fifteen minute ride between Washington and New York on the Northeast Regional, and \$20 for a four hour and fifteen minute, "unsubsidized" bus ride with leather seats and free wifi, and \$119 for a one-hour flight . . .

Amtrak's Acela service between Boston and Washington covers its operating costs, though not its capital costs, by collecting fares of about 75 cents per passenger mile compared to 13 cents per mile for airline passengers and even less for intercity bus passengers."

But as noted before, every mode of transportation is subsidized. As James Coston put it in his December 2001 speech:

“(A)ll forms of intercity commercial passenger transportation are money-losers—if you calculate all of their costs in the same way we calculate the costs of passenger trains.”

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Both bus rides and flights are heavily subsidized, and are subject to the vagaries of congestion and weather. And while the actual flight time may be just an hour, the travel time to and from the airport combined with the wait time for check-in and security screening makes air travel comparable to or worse than the train travel time, downtown to downtown.

Mr. Kilmer seems to make no distinction between the quality of service, the amenities, and/or the convenience of the various transportation options cited. Many travelers find the differences to be quite compelling, and sufficient enough that they cause the Acela service to make a profit for Amtrak.

Clearly it is a good thing to have travel options, although airfares are considerably more than \$51 one-way between Washington and Boston, plus the wait time for travel to and from the airports, security clearances, and check-in make the overall travel time by air nearly comparable with Acela. And unless you like that environment and have all the time in the world, traveling by bus between Boston and Washington is not the most attractive option. As for covering their capital costs, none of the options cited cover the operational and maintenance costs of the infrastructure over which they operate.

It’s unclear why the *Washington Post* felt the need to weigh in as they did on February 17, 2011 with their editorial, “A Railroad to Ruin.” But for what its worth they observed:

“ . . . if the Chinese do finish their system, it is likely to require operating subsidies for many years . . .

If high-speed rail turned into a money pit under relatively favorable circumstances, imagine the subsidies it would require here. Every dollar spent to subsidize high-speed rail is a dollar that cannot be spent modernizing highways, expanding the freight rail system, or creating private-sector jobs. The Obama Administration insists we dare not lag the rest of the world in high-speed rail. Actually, this is a race everyone loses.”

Only in America is there an unwillingness to recognize that virtually all modes of passenger transportation, including highways and aviation, require some level of subsidy. Why do critics continue to overlook, or worse, misrepresent that fact?

It certainly is laudable to pursue the goal of no subsidy, and in fact recent studies done for both the California High-Speed Rail Authority and for the Florida High-Speed Enterprise offer hope that the above the rail portion of those two systems have the potential to generate a surplus while at the same time paying access fees for use of the rail infrastructure. Even the politically beleaguered Amtrak is showing signs of positive economic performance in the Northeast Corridor and the Capital Corridor in California. Japan and France have long been able to generate operating surpluses on significant portions of their high-speed rail systems, as the British are beginning to do as well.

The *Washington Post* offers readers the virtual “Hobson’s Choice” (i.e. taking what is offered or taking nothing at all). The proposition suggested is that, despite the facts, the administration’s proposal is a

money loser, and the money lost will deprive other infrastructure projects of needed resources. So therefore, let's not consider the proposition at all.

The truth of the situation is, as has been cited many times throughout this document, all transportation infrastructure requires some form of government underwriting or subsidy, most especially our highways.

Secondly, the administration's passenger rail initiative is proving a tremendous boon to America's freight rail system, especially in those corridors where the emphasis is on upgrading conventional passenger rail service that largely runs over the same rail lines as freight.

Thirdly, the jobs all of these efforts create are virtually all in the private sector. Since the 2007 publication of a study by the Federal Highway Administration, it has been generally accepted that every \$1 billion in infrastructure investment generates approximately 20,000 long-term and short-term jobs, the majority being on the long-term side of the labor market. The fact is, infrastructure investment is one of the best ways to stimulate and maintain long-term job growth.

Fourth, this is not, except in the minds of the critics, a choice between one mode of transportation or another. It is an opportunity to maximize the broad range of benefits that flow from having a wider choice of functioning alternatives within the nation's transportation system. A highly integrated passenger rail program that connects to airports, mass transit, and roadways, and that offers traveler competitive options to meet their needs and desires, represents the best and wisest use of resources.

On this basis, everyone wins.

[T]his is not, except in the minds of the critics, a choice between one mode of transportation or another. It is an opportunity to maximize the broad range of benefits that flow from having a wider choice of functioning alternatives within the nation's transportation system.

CHAPTER VI

Old Technology that Is Not Transformational

One of the odder criticisms of the current high-speed and intercity passenger rail improvement initiative is that it is old technology and there is nothing transformational about it. This criticism is juxtaposed to a criticism to be explored later that argues high-speed rail will not work in the United States. The interesting matter about these criticisms is that they come from the same individuals.

So what is this criticism and what is its point?

Randal O'Toole of the CATO Foundation (June 18, 2009) argues:

“The FRA high-speed rail plan does not include parts of the nation like Dallas to Houston, Jacksonville to Orlando, or the Rocky Mountain West (although one can eventually expect requests from those areas to build what will then be outworn technology).”

It is not at all clear why the author chose to single out these particular areas, unless it was to promote some sort of wedge issue. In the first instance, these suggested corridors have not been designated by Congress as high-speed rail corridors as have the 12 (including the Northeast Corridor) in the president's initiative. Secondly, none of the states in which these corridors might someday exist have requested funding under the president's current high-speed rail initiative. It may well be true that if and when these states request support, it will be for conventional passenger rail service, or there may be a newer, more advanced technology than the high-speed rail technology with which we are becoming familiar today.

In one of many obituaries he published on high-speed rail (“End of the Line: A Highly Ambitious High-Speed Rail Programme in the U.S. Has Hit the Buffer of Fiscal Reality,” *Innovation Briefs*, February 2, 2011), Ken Orski wrote:

“The \$53 billion initiative was seeded with an \$8 billion ‘stimulus’ grant and followed by an additional \$2.1 billion appropriation out of the regular federal budget. But instead of focusing the money on improving rail service where it would have made the most sense—in the densely populated, heavily traveled Northeast Corridor between Boston and Washington—the Obama Administration sprinkled the money on 54 projects in 23 states.”

Mr. Orski writes as if he is totally unfamiliar with the long history and evolution of the nation's intercity high-speed passenger rail initiative going back to the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) when the Congress designated the desired “high-speed” rail corridors, and progressing through the enactment of the Passenger Rail Improvement and Investment Act of 2008, and the American Recovery and Reinvestment Act of 2009. In total, the Congress authorized the creation of 12 corridors in addition to the Northeast Corridor, which had its own, separate designation through the Amtrak authorization and appropriation. It was not until late in 2010 that Congress agreed to include the Northeast Corridor for consideration as part of the total high-speed and intercity passenger rail improvement initiative.

The criterion for grant eligibility was developed and vetted through the long-standing notice and comment process as required under the Administrative Practices Act, and states voluntarily made application for grants that met the established requirements.

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Ironically, on numerous occasions since the current initiative was launched, the Chairman of the House Transportation and Infrastructure Committee, John Mica (R-FL), has argued that the initiative ought to be focused on one or two corridors where it makes most sense to build true high-speed rail. As recently as May 9, 2011 Congressman Mica said:

“Once again, the administration has scattered funding to numerous slower-speed rail projects, and allowed Amtrak to hijack 21 of the 22 grants. Note: Of the 78 initial passenger rail grants awarded under the stimulus, Amtrak was the recipient of 76.

Only two months ago, the administration finally designated the Northeast Corridor as a high-speed rail corridor, and today provided funding for projects in this region. However, with Amtrak’s plan to spend \$117 billion over the next 30 years, the administration continues to take a piecemeal approach to improving the NEC.”

Incremental Approach

Frankly, the administration’s plan should be a highly acceptable approach to Mr. O’Toole and his colleagues. It is a plan that is very similar to the European and Japanese experience, which the Reason Foundation suggested in its “Due Diligence Report” is the preferred way to go because it is incremental:

“In Japan, each of the Bullet Train routes were preceded by a strong conventional rail service—a “ready market” from which a large portion of the high-speed rail ridership was attracted. Before the high-speed system opened in the 1960s, there was little air service and there were relatively few automobiles. Thus, much of the HSR ridership simply transferred from slower trains to faster trains. By comparison, California has a small market potential in diverting traffic from traditional rail services . . .

The European HSR ridership is not all new ridership. On many lines, there was considerable traffic before the coming of HSR. In France, Germany, Italy, and Spain, which accounted for the overwhelming majority of HSR ridership in Europe, conventional (non-HSR) ridership dropped 27 million between 1990 and 2006. This represents 40% of the HSR increase of 69 million. Many HSR riders are former train riders who switched to the faster services.”

In testimony before the House Transportation and Infrastructure Committee on October 14, 2009, Federal Railroad Administrator Joe Szabo said,

“The administration’s *Vision for High-Speed Rail in America* uses four definitions for the multiple types of intercity passenger rail that will be used in the future[.]”

“The administration’s *Vision for High-Speed Rail in America* uses four definitions for the multiple types of intercity passenger rail that will be used in the future:

Conventional Rail—Traditional intercity passenger rail services of more than 100 miles with peak speeds in the 79 mph to 90 mph range.

Emerging High-Speed Rail—Developing corridors of 100-500 miles in length with top speeds in the 90-110 mph range.

High-Speed Rail—Regional—Relatively frequent service between major and moderate population centers 100-500 miles apart with top speeds in the 110-150 mph range.

High-Speed Rail—Express with frequent service between major population centers 200-600 miles apart with few intermediate stops and top speeds in excess of 150 mph.

Thus, in discussing how we make high-speed rail a reality, we need to be talking about a range of technologies and a range of investment options that each have their own sets of opportunities and challenges.

That is not to say that high-speed rail is preferable in all situations to air and/or auto. Indeed each has and will have an important place in the transportation system of our future. High-speed rail will only be successful as part of an integrated, intermodal transportation system that includes effective connections to our transit, highway, and aviation systems.”

For FY 2012, the president’s budget request was:

“\$8.3 billion to invest in our Nation’s railways; the first year in a six-year, \$53 billion proposal to develop and expand America’s high-speed and intercity passenger rail system while preserving and enhancing the country’s world-class freight rail network. The President’s request proposes consolidating passenger rail programs into two accounts (funded through the Transportation Trust Fund): Network Development and System Preservation. Included in this request is \$5.5 billion from the president’s “Up-Front” \$50 billion call for transportation investment, which will renew aging Amtrak assets and update inaccessible rail stations to Americans with Disabilities Act (ADA) requirements.

- The total request is an increase of nearly \$4 billion over the FY 2010 enacted level and 166 positions (83 FTE) for high-speed rail, safety, and support program personnel needed to deliver programmatic and regulatory duties. This includes an additional 59 positions (29.5 FTE) for regional safety inspectors.
- Network Development: \$4 billion funds competitive grants for development of core express, regional, and feeder corridors, to advance the president’s goal to provide Americans with convenient access to a passenger rail system featuring high-speed service to 80% of Americans within 25 years. This account provides grants to develop regional networks of electrified, high-speed corridors and connecting higher-speed intercity passenger rail services, where they make sense. It builds on recent efforts to establish a U. S. rail equipment program to spur interoperability and optimize economies of scale for the domestic rail community. The account funds capacity building and transition assistance programs to enhance the nation’s rail workforce and expertise, and advance positive train control technology. Finally, it provides temporary support for states to meet recent requirements to cover operating costs for legacy corridor routes while providing start-up support for new rail services.
- System Preservation: \$4 billion fully funds Amtrak’s national network operating, capital, and debt service requirements; and establishes a new competitive grant program to ensure passenger rail assets are maintained safely and reliably in the future. This account begins an accelerated program to eliminate the long-standing backlog of capital needs on the Northeast Corridor along with new equipment orders to replace the nation’s aging intercity passenger rail fleet and boost domestic manufacturing. It also includes funding to bring all intercity

passenger rail stations into compliance with the ADA.” (Department of Transportation FY 2012 Budget Highlights)

O’Toole complains that:

“Unless you live in California, don’t expect super-fast bullet trains...In most of the rest of the country, the FRA is merely proposing to boost top speeds of Amtrak trains from 79 to 110 mph.”

O’Toole wants to impress upon his audience that:

“The average speeds of the proposed initiative are not significantly different from the top speed of today’s Amtrak service.”

There are other factors to consider besides speed when contemplating the comparative advantage of one mode of transportation over another. But if the author is suggesting that through the president’s initiative more passenger trains in the United States are going to be able to run at speeds approaching 150 mph, that would be a major improvement and make passenger train travel highly competitive with virtually every other form of passenger transportation.

Mr. O’Toole, citing a pro-rail organization, the Center for Clean Air Policy, says:

“The completely built-out FRA system will provide only 20.6 billion passenger miles of service by 2025; just 58 miles of service per year/per person based on the anticipated population in 2025.”

This is one of those silly numbers games used to try to leave the reader with the impression that the initiative will have little impact. But if one realizes that by 2025 the United States may have a population of over 350 million, and there will be something in the neighborhood of 15,000 miles of improved passenger rail, 20.6 billion passenger miles is truly impressive. By the way, according to Amtrak, it provided just 2.8 billion passenger miles of service in 2010.

Pork Barrel Expenditure

Picking up on O’Toole’s theme, Robert J. Samuelson (“High-speed pork” *Washington Post*, November 1, 2010) wrote:

“President Obama calls high-speed rail essential ‘infrastructure’ when it’s actually old-fashioned ‘pork barrel.’ The interesting question is why it retains its intellectual respectability. The answer it seems, is willful ignorance. People prefer fashionable make-believe to distasteful realities. They imagine public benefits that don’t exist and ignore costs that do.”

To this complaint one can only respond—Physician, heal thyself. The president’s call was for a robust transportation system that includes an improved passenger rail system with high-speed rail in corridors where appropriate that is highly integrated with the other elements of the nation’s transportation system. The initiative set forth by the administration was so “not pork-barrel” in contrast to the other long-established infrastructure programs that Mr. Samuelson reveres. It is intellectually disingenuous for Mr. Samuelson to cast such aspersions.

Repeatedly on issues of climate, energy, ridership, revenue, and mode-shift, critics like Mr. Samuelson have been shown not credible. Their “the sky is falling” perspective is refuted by the experience of most of Europe and significant portions of Asia; and in America’s urban corridors, we are not that dissimilar from

either Europe or Asia, especially when one focuses on the future and does not dwell on the nostalgia of the past.

But he does not stop there. On February 14, 2011, Robert J. Samuelson (“Government Gone Wrong,” *Washington Post*) writes:

“. . . What’s disheartening about the Obama Administration’s embrace of high-speed rail is that it ignores history, evidence, and logic . . . The case in favor rests on fashionable platitudes. High-speed rail is not an ‘investment in the future’; it is mostly a waste of money.”

If anyone should be concerned about platitudes, it should be Mr. Samuelson. The platitudes he iterates are provided to him by the CATO Institute, the Reason Foundation, and others who are waging a philosophical and ideological war against passenger rail out of fear that it may prove to be a lasting legacy of an administration they oppose, and that it will, as it has in other parts of the world, prove to be a valuable, reliable, and effective improvement to an over-crowded, inefficient transportation system that is grossly impairing the ability of the American economy to regain vitality and compete effectively in the global marketplace.

Balancing Transportation Options

Continuing, Samuelson, (“Government Gone Wrong,” *Washington Post*, February 14, 2011) wrote:

“The reasons passenger rail service doesn’t work in America are well known: Interstate highways shorten many trip times; suburbanization has fragmented destination points; air travel is quicker and more flexible for long distances. . . . Against history and logic is the imagery of high-speed rail as ‘green and cutting-edge technology.’”

There will be more on the “doesn’t work in America” theme in the next chapter. For now, however, focus on the fact that proponents of intercity passenger and high-speed rail are not arguing that passenger rail service should be used universally as a means of curtailing the use of the automobile or air travel. Each mode has an appropriate use.

What proponents are arguing is that the nation needs a more balanced use of all three modes. Particularly in the Northeast Corridor and in California where airports and highways have become so congested that long delays and lost productivity are routine. Improvements in rail service in the Northeast Corridor have been so dramatic that rail ridership rivals airline ridership between Washington, New York, and Boston. According to the California High-Speed Rail Authority, “Ridership on the 100 Amtrak trains using the corridor exceeded 10 million passengers in 2007. In addition, on the Amtrak-owned portions of the NEC, seven freight railroads operate approximately 50 trains per day.”

What proponents are arguing is that the nation needs a more balanced use of all three modes. Particularly in the Northeast Corridor and in California where airports and highways have become so congested that long delays and lost productivity are routine.

The Amtrak September 2010 “Vision for High-Speed Rail in the Northeast Corridor” shows that highway travel constitutes 89% of the passenger flow in the Northeast Corridor, five percent travel by air, and six percent travel by rail.

An August 2009 paper, “A Regional Context for Intercity Passenger Rail Improvements in the Northeast,” prepared for the Coalition of Northeast Governors by Mathew Coogan noted that, “northeast airports are presently supporting over ten million intra-regional trips. That consumer aviation capacity might be used for longer distance national and international trips for which rail is not a reasonable alternative. According to the market potential studies, high-speed rail services could divert an additional three million air trips within the region by 2025. Similarly, high-speed rail services could divert another one million trips off of the region’s highways—under the assumption of the improved travel times incorporated into the original U.S. DOT studies.

In its paper, “Other High-Speed Train Systems,” the California High-Speed Rail Authority notes that, “Most of California’s major airports (SFO, LAX, San Diego, Oakland, San Jose, Burbank, John Wayne Orange County) will be over capacity by 2020. California’s major commercial airports support the California High-Speed Train Project since it will complement the air transportation system. The California high-speed train system will reduce congestion at the major airports (by diverting passengers away from air transportation for trips within California); and in Southern California, will provide high-speed ground access to Ontario and Palmdale Airports—which is an essential component of the regional plan for reducing congestion at LAX. The Authority is hopeful that airlines will lead or be part of consortiums that will competitively bid to be the high-speed train operator.

Marc Kilmer (appearing on Maryland Public Radio on behalf of The Maryland Public Policy Institute, February 11, 2011) suggested that:

“High-speed trains in Europe haven’t proved transformational. The average French or Japanese citizen rides high-speed trains less than 400 miles a year.”

But according to Chris Nash in his paper, “High-Speed Rail Investment: An Overview of the Literature,” Institute for Transport Studies, University of Leeds:

“In 1986, high-speed trains accounted for 9.4 billion passenger kilometres, increasing to 42.3 billion in 1997 (Wilken, 2000).

However, high-speed rail remained dominated by France, where almost two-thirds of all high-speed passenger kilometres are found.

The concept of a 15,000 km network of high-speed routes emerged, linking all the major cities of Europe (CER, 1989). The High Level Group of the Commission of the European Communities (CEC, 1990) proposed an extensive high-speed rail network.

The 1993 Treaty of Maastricht called for a network of Trans-European lines, linking the existing high-speed lines. Of major strategic importance are the new line between Brussels and Cologne; the extension of TGV Sud-Est to the Spanish border; the planned Alpine crossing between Lyon and Turin; and links between the French and German networks. Existing and planned routes are outlined by Walrave (1993).

Recognition that such lines would benefit not just the countries in which they were built but the European Union more generally led to their

Recognition that such lines would benefit not just the countries in which they were built but the European Union more generally led to their designation as part of the Trans European Network, and a large share of the limited European funds made available for transport infrastructure has been directed towards them.

designation as part of the Trans European Network, and a large share of the limited European funds made available for transport infrastructure has been directed towards them. Peripheral countries have also received substantial funding for high-speed rail from regional and cohesion funds, designed to reduce economic and social inequality within Europe. In the meantime, high-speed rail has been extended to more countries in Asia, including Korea, Taiwan, and China.

The impact on rail market share is very large, particularly in Spain where the improvement in rail journey time was larger. Much more traffic is extracted from air than road. It should be noted that the figures for TGV Sud-Est will have been influenced by a significant amount of newly generated traffic. Wilken (2000) reports that surveys of AVE passengers indicated that 15% of the additional rail traffic was newly generated. For this reason, the market share figures should be interpreted with some caution.

BEFORE AND AFTER HIGH-SPEED MARKET SHARES

	TGV Sud-Est		AVE Madrid-Seville	
	Before	After	Before	After
Plane	31%	7%	40%	13%
Train	40%	72%	16%	51%
Car and Bus	29%	21%	44%	36%

Source: COST318 (1996).

On the Madrid–Seville relation, the AVE connection rose the rail market share from 16 to 51% ; air traffic shrunk from 40 to 13%; road traffic from 44 to 36%, hence the rail market amounted to 80% of the combined rail and air traffic” (Peter Jorritsma: Substitution Opportunities of High-Speed Train for Air Transport” (http://www.aerlines.nl/issue_43/43_Jorritsma_AiRail_Substitution.pdf))

This figure increased to 89% in 2009, according to the Spanish rail operator RENFE (“Spain’s High-Speed Rail Offers Guideposts for U.S.,” *The New York Times*, May 29, 2009):

“More up-to-date figures are quoted by SDG (2006) for the air-rail mode split, showing that where rail journey times are reduced below 4 hours, rail share of the rail-air market increases rapidly with further journey time reductions, and rail tends to have a market share of at least 70% and sometimes effectively drives air out of the market when rail journey times are below three hours. Future trends are found to depend on a wide variety of factors including the introduction of environmental charges on air transport and trends in air and rail costs.”

Advanced Technology

Not to be forgotten, Ronald Utt of the Heritage Foundation wrote on March 2, 2011:

“Despite his State of the Union proclamation to spend \$56 (sic) billion on high-speed rail over five years, the president’s transportation budget offers no such plan. Of this sum, \$15 billion would go to slow-speed Amtrak, while the remainder is for a network development program providing ‘convenient access to a passenger rail system featuring high-speed rail service.’”

Similarly, Diana Furchtgott-Roth (“Cut, Don’t Promote, High-Speed Rail,” *Washington Examiner*, February 10, 2011), observed:

“Many are comparing the development of high-speed rail networks with President Eisenhower’s initiative in pushing for the interstate highway system. But this is deficient because the highway system was created to serve an evolving, growing, congested transportation mode.

Passenger service on fixed rails, on the other hand, is an old and outmoded technology. In addition, the highways were designed to be paid for by users, by means of dedicated fuel taxes; but rail services have to be paid for by taxpayers.

. . . most Americans don’t use railroads, they use cars. High-speed rail is an expensive form of transportation that will reach only small segments of the country and that will not substitute for highways.”

In the first instance, the redevelopment of America’s intercity passenger rail system, including high-speed rail, is taking place precisely because our nation’s system of roadways and airways are congested and overburdened. For reasons of national security as well as mobility and accessibility, America needs intercity passenger rail. The administration’s passenger rail improvement initiative is indeed fashioned after President Eisenhower’s program for building the interstate highway system.

Talk about “old technology.” Short of the legs and feet of individuals, there is probably no older technology than roads. But roads, like virtually every other mode of transportation, have their limits and are appropriate in some places and not in others.

Passenger service on fixed rail is, in fact, a very modern, safe and a well-proven technology. Today’s railroads use the latest communications, energy management, and systems design technologies. Even in the face of conditions that cause other transportation modes to cease operations (as was the case for air travel in Europe during the fall and winter of 2009/2010), intercity passenger rail has demonstrated itself to be reliable, dependable, and technologically advanced.

While a trust fund was established to “help pay” for the construction of the interstate highway system, it was only after several gas tax increases over the first 20 years of the initiative’s life that sufficient revenue was generated to pay for a substantial portion of the federal government’s share of the system. Overall, the federal gas tax has paid for barely 50 percent of the system’s construction and operation, and in the past few years, Congress has pumped more than \$120 billion into the highway trust fund in order to meet the federal government’s obligations. There is no mode of transportation in the United States or elsewhere that does not require some amount of government subsidy to make up the short-fall between the revenue it may generate and the actual cost of its construction, maintenance, and operation.

A Different Standard

So why should a different standard be required of intercity passenger rail?

That said, there are in fact examples of passenger rail systems around the world that are at least recouping their above the rail costs and generating some modicum of revenue surplus. That’s more than can be said of the highway system.

Speaking of which, it is unfortunate that some critics of the passenger rail improvement initiative argue that this really is a roads vs. passenger train debate. Over the past decade it seemed that that modal debate was settled. There was a general agreement that each transportation mode had its own place and

purpose, and the important matter was to ensure the modes were integrated with one another to create a transportation system.

Symbolic of the criticism is Marc Kilmer of the Maryland Public Policy Institute appearing on Maryland Public Radio on February 11, 2011:

“Wasting money on high-speed rail diverts money away from repairing and expanding roads, making our transportation problems worse.”

And Diana Furchtgott-Roth, writing in the *Washington Examiner* (“Cut, Don’t Promote, High-Speed Rail,” February 10, 2011):

“But most Americans don’t use railroads, they use cars. High-speed rail is an expensive form of transportation that will reach only small segments of the country and that will not substitute for highways.”

Expenditures for intercity passenger rail will not divert funding from other transportation modes. Rather, these investments will ensure that there will be a highly integrated transportation system that will offer viable, reliable options to individual and commercial travelers and shippers.

While it is true most Americans don’t (presently) use railroads, they (presently) use cars, what’s the point? Is it to suggest that just because that is the way things are today they can’t or won’t change in the future? What about when gasoline is pushing \$8.00 a gallon like it is in most other parts of the world? Should people be permanently locked in their cars or on airplanes with no other alternative means of travel for distances of 100 to 600 miles, except to wait in long lines and endure both high cost and insulting scrutiny as they attempt to board an airplane?

And that “small segment of the population?” According to the Census Bureau 2010 Census, more than 70 percent of the nation’s population lives in or reasonably close to urban centers. Under the administration’s plan to develop and improve intercity passenger rail service, this segment of the population could avail themselves of this revitalized transportation option over the next decade and beyond. Plus, with the American population expected to grow by at least 100 million over the next few decades, one can only imagine demand for transportation alternatives to the already overly congested highway and aviation infrastructure will increase.

According to the Census Bureau 2010 Census, more than 70 percent of the nation’s population lives in or reasonably close to urban centers. Under the administration’s plan to develop and improve intercity passenger rail service, this segment of the population could avail themselves of this revitalized transportation option over the next decade and beyond.

“. . . the \$1.1 billion track improvement on the Chicago–St. Louis line in Illinois. It would reduce travel time between the cities by 48 minutes, but the trip would still take more than four and half hours at an average speed of 62 miles an hour.

“None of these high-speed projects are really high-speed . . .” (“High-Speed Rail Is a Fast Way to Waste Taxpayer Money,” Michael Barone, *Washington Examiner*, January 18, 2011)

For once, the author got something right. In its initial stage, the Chicago/St. Louis corridor will not be true high-speed passenger service (150 mph to 220 mph). It will be higher speed regional service (79 mph to 110 mph) running in a shared corridor with freight and commuter rail service. Neither the administration, nor the state of Illinois has ever claimed this initial project to be high-speed rail. They have, however, said

that is their ultimate goal and in February 2011, the U.S. Department of Transportation awarded the states of Illinois and Missouri planning money to begin the environmental impact study that would enable the corridor to eventually reach that goal.

The \$1.1 billion intercity and high-speed passenger rail stimulus grant awarded for the St. Louis/Chicago corridor will support 183 miles of track improvements including 23 miles of double track, station and platform improvements, and the purchase of 12 new locomotives and 30 passenger cars.

According to Mapquest.com it takes 4 hours and 48 minutes to drive the 297 miles from Chicago, Illinois to St. Louis, Missouri. So clearly, even in its initial improvement stage, running at 79 mph, the St. Louis/Chicago service would take about an hour less compared to driving, and passengers would have that three and three quarters hours to read, relax, and observe all the highway congestion right outside their passenger train window, or about the same amount of time it takes to fly from Chicago to St. Louis including the time it takes to wait at the airport and be hassled by airport security.

Contrary to perspectives of Wendell Cox, Randal O'Toole, Marc Kilmer, Diane Furchtgott-Roth and the other critics, the American traveling public prefers options, especially if they are competitively priced, equal or better in travel time compared to other options, and afford a level of safety and comfort equal to or better than other transportation modes.

CHAPTER VII

High-Speed Rail Won't Work in the U.S.

This is the passenger rail improvement critics' counter argument to the arguments they raised in Chapter VI (Old Technology/Not Transformative). Could this be (yet another) example of them talking out of both sides of their mouths?

In their exhaustive criticism of the California High-Speed Rail Proposal, "A Due Diligence Report," authors went to great lengths to argue that there was nothing new about intercity passenger rail. It was just outmoded, and to spend any amount of money on attempting to reinvigorate intercity passenger rail was simply a waste.

Too Revolutionary

Now, the critics turn their arguments to suggest that intercity passenger rail, and especially high-speed rail is too revolutionary, and will not work in the United States. Take for example this statement from "A Due Diligence Report":

"High-speed rail systems operate in a number of countries overseas. The state of California is proceeding with its HSR plan based on assumptions that are appropriate to European and Asian environments but generally hold little applicability in the state."

According to The California High-Speed Rail Authority (CHRSA), the California high-speed rail system will carry up to 117 million passengers annually by 2030, with the capacity to also carry high-value, lightweight freight.

The system will meet the need for a safe and reliable mode of travel at less than half the cost of building more freeways and airport runways; and will link the major metropolitan areas of the state and deliver predictable, consistent travel times sustainable over time.

The system will share rail alignments throughout much of the system and will improve joint facilities benefiting safety and operations of existing freight, commuter, and conventional passenger rail services.

It will not require an operating subsidy. It will serve tourist and leisure travel, business travel, and long-distance commuters over a variety of long, intermediate, and relatively short-distance trips (such as Los Angeles to Anaheim, Palmdale, Riverside, San Diego, Fresno, Sacramento, and the Bay Area).

The system will share rail alignments throughout much of the system and will improve joint facilities benefiting safety and operations of existing freight, commuter, and conventional passenger rail services.

It will provide quick, competitive travel times between California's major intercity markets; provide door-to-door travel times for longer distance intercity markets that will be comparable to air transportation, and less than one-half as long as automobile travel times; provide considerably quicker travel times for intermediate intercity trips than either air or automobile transportation; and bring frequent high-speed train service to many parts of the state that are not well served by air transportation.

The system will offer lower passenger costs than travel by automobile or air for the same intercity markets; and a new intercity, interregional and regional passenger mode—the high-speed train—which would improve mobility, connectivity, and accessibility to other existing transit modes and airports compared to the other alternatives, improving the travel options available in the Central Valley and other areas of the state with limited bus, rail, and air service for intercity trips.

It will provide transportation options in cases of extreme events, such as adverse weather or petroleum shortages.

It will be a predominantly separate transportation system that will be less susceptible to many factors influencing reliability such as capacity constraints, congestion, and incidents that disrupt service—meaning it will have superior on-time reliability with a lower accident and fatality rate than automobile travel, avoiding over 10,000 auto accidents yearly with their attendant deaths, injuries, and property damage when compared to exclusive reliance on highways.

Offering greater opportunities to expand service and capacity with minimal expansion of infrastructure, the system will add capacity to the state’s transportation infrastructure and reduce traffic on certain intercity highways and around airports to the extent that intercity trips are diverted to the high-speed train system, thereby eliminating traffic delays at existing at-grade crossings where the high-speed train system would provide grade separation by using train technology proven to be the safest, most reliable form of transportation known through extensive regular revenue service in Europe and Asia.

Expanding airports and highways to meet the intercity travel demands of 2020 would cost two-to-three times more than building the high-speed train system.

California/International Comparison

Another of “A Due Diligence Report” criticisms is that:

“The CAHSRA in promotional literature frequently cites developments in Europe and Asia to justify building such a system in California. Absent from such material is recognition of critically different circumstances and environments. Overall, the dissimilarities are great. Congressional Digest summarized Europe’s train-friendly circumstances well:

‘Conditions in those countries are, in many ways, more favorable to passenger rail transportation than in the United States. Their population densities are higher (which makes train travel more efficient), their fuel prices, including taxes, are higher (which makes driving more expensive relative to other travel options), and their land area is relatively smaller (which makes travel time by train more competitive with air travel).’

While factors exist that allow high-speed rail systems to be well-used overseas, they nonetheless appear insufficient to allow those very same HSR systems to attain profitability under generally accepted accounting practices. Moreover, while the conditions were favorable for the development of HSR in Europe and Japan, they are less clearly so in the United States.

High-speed rail systems operate in a number of countries overseas. The state of California is proceeding with its HSR plan based on assumptions that are appropriate to European and Asian environments but generally hold little applicability in the state.

Considerable market differences exist with conditions in California being far less favorable to the potential success of such a system. Dissimilarities include population densities in urban areas, size of central business districts, extent of connecting transit systems, distances between urban areas, and the

degree to which a train-riding market existed prior to HSR service. Financially, it is not clear that the world's HSR systems have typically covered their operating and capital costs without subsidies—a determination that would be appropriate in a due diligence process for commercial HSR proposals in any nation.”

Picking up on this theme, Diana Furchtgott-Roth (“Cut, Don’t Promote, High-Speed Rail,” *Washington Examiner*, February 10, 2011) declared:

“Some Americans admire the railroads they see on trips to Europe and Japan and think America should have similar trains. But this ignores the exceptionally different demographic and economic environments . . .”

Similarly, Thomas Sowell, writing in the *Albany Herald* on February 22, 2011 said:

“High-speed rail may be feasible in parts of Europe or Japan, where the population density is much higher, but without enough people packed into a given space, there will never be enough riders to repay the cost of building and maintaining a high-speed rail system . . .

Los Angeles and San Francisco and Tokyo and Osaka are comparable distances apart, but the populations of Tokyo and Osaka are millions larger than Los Angeles and San Francisco. That makes having ‘bullet trains’ in Japan make more sense.”

Were these perspectives true, then it would have been unlikely that SNCF, Japan Rail, Deutsche Bahn, Siemens and other organizations highly experienced with European and Asian high-speed rail initiatives would be so deeply engaged in efforts to build high-speed rail in the United States.

The American initiative is a forward-looking undertaking that recognizes first of all that building out a network of highly integrated passenger transportation including high-speed rail will take decades. In that time-frame the American population is expected to grow by at least 100 million, fossil fuel will become more scarce, and environmental concerns will require the use of less-polluting, more energy efficient modes of transportation. High-speed rail fits that bill.

The American initiative is a forward-looking undertaking that recognizes first of all that building out a network of highly integrated passenger transportation including high-speed rail will take decades.

As to the issue of profitability, while there are ways and demonstrated means by which high-speed rail can and does operate profitably, the question to ask is why is high-speed rail (or passenger rail service in general) singled out as the only mode of transportation with a mandate to operate profitably?

This is nothing more than a red herring being offered so the opposition can claim that once again pro-passenger train advocates are trying to deprive Americans of their “Henry Ford given right” to drive automobiles. This of course is not the case. Pro-passenger train advocates have nothing against the automobile and are not proposing the death of the automobile the way the anti-train advocates are campaigning against passenger trains, especially high-speed trains.

Today, demographically, there is not much difference between conditions in Europe and Japan and those of the American East and West coasts (or for that matter the Chicago hub).

Economically, conditions are quite similar as well. The only significant difference that exists between the U.S. and places abroad lies in the price of automobile fuel and the skewed perception of what travel actually costs. But even that will be changing in the coming years as fossil fuel becomes scarcer and the present day infrastructure continues to crumble because of chronic underinvestment.

The only significant difference that exists between the U.S. and places abroad lies in the price of automobile fuel and the skewed perception of what travel actually costs.

Hopefully, 10 years from now, the U.S. passenger rail system will be reaching the first operational stages of the administration's proposal and it will be nearly impossible to tell the U.S. from Europe or Japan in terms of the sophistication and efficiency of its transportation infrastructure. Otherwise, those places will have progressed through several generations of passenger rail improvements while the U.S. will still be debating whether high-speed rail should be built.

CHAPTER VIII

Overstated Benefits

Coincidental to the arguments that high-speed rail needs to be pursued on an evolutionary basis and that the administration's proposal is old technology and not transformative, consider the criticism that the benefits of the proposed high-speed and intercity passenger rail initiative are overstated.

On page nine of their report, the authors of "A Due Diligence," write:

"The Authority has stated that the proposed high-speed rail system 'is one of the world's largest public works projects.' Thus it is even more imperative that all involved be cautious because "mega-project" financing has begun to breed mistrust. The leading worldwide infrastructure study on such projects concluded:

'The cost estimates used in public debates, media coverage, and decision making for transport infrastructure development are highly, systematically, and significantly deceptive. So are the cost-benefit analyses into which cost estimates are routinely fed to calculate the viability and ranking of projects . . . An important policy implication for this highly expensive and highly consequential field of public policy is for the public, politicians, administrators, bankers, and media not to trust the cost estimates presented by infrastructure promoters and forecasters.'

This report finds that the CAHSRA's documentation and public statements are indeterminate as to the project's commercial viability and indeed suggest that the project is not feasible. This report finds that the CAHSRA's documentation and public statements fail to confirm the project's commercial viability and the analysis in this report suggests that the project is not feasible."

Mega-Projects and Risk

The "leading worldwide infrastructure study on such projects" referred to in this quote is a study titled, "Mega-Projects and Risk: Anatomy of Ambition," and indeed it is an exhaustive analysis of some 200 infrastructure projects and three case studies from which its authors, Bent Flyvbjerg, Nils Bruzelius, and Werner Rothengatter (Cambridge University Press, 2003), draw many observations and make some constructive recommendations. But the quote pulled from their research paper is only an observation and not a recommendation, nor a conclusion.

Rather, the recommendations and conclusions of the "Mega-Projects" authors are:

"Understanding the anatomy of mega-projects is necessary to be an effective player in project development . . . We offer this book as an attempt at fleshing out in practice the types of decision making and democracy called for by theorists of risk and democracy for a specific domain of increasing social, economic, and political importance, namely that of mega-project development.

"One advantage of using a performance-specification approach is that it . . . forces organizations and groups of people to play a constructive role in determining how to meet the objectives they would like to see met, and undermines the credibility of criticism directed at mega-projects simply because they happen to be mega-projects."

... One advantage of using a performance-specification approach is that it forces people to focus on the ends rather than the means. It allows for a constructive and reflexive dialogue with those who play an active role with respect to environmental, safety, economic, and other issues. At the same time, the approach forces organizations and groups of people to play a constructive role in determining how to meet the objectives they would like to see met, and undermines the credibility of criticism directed at mega-projects simply because they happen to be mega-projects.”

In other words, the authors of “Mega-Projects” were not condemning mega-projects. They were recognizing the importance of mega-projects and offering a strategy for civil discourse to assure their success.

But because “Due Diligence” was written with an objective in mind—

“The principal message of this Due Diligence report is that CAHSRA’s plans have little or no potential to be implemented in their current form and that the project is highly risky for state taxpayers and private investors.”

—the constructive intentions of the “Mega-Projects” authors were misconstrued and have been used as the justification by the “Due Diligence Report” authors to repeatedly attack the California High-Speed Rail project and virtually every other similar project across the country.

In keeping with their manipulated justification, the “A Due Diligence Report” authors and their colleagues regularly argue that the benefits of the intercity passenger and high-speed rail initiative are vastly overstated by passenger rail proponents.

Additional Attacks

We have already read many examples of these attacks in other chapters of this paper, but it is worthwhile to consider these additional examples of charges leveled in the “A Due Diligence Report” and other, related commentaries:

“It is possible that high-speed rail can serve legitimate public and environmental purposes and be a financial success in California. However, the current CAHSRA proposal cannot achieve such objectives.” (“A Due Diligence Report”)

To serve the same number of travelers as the high-speed train system, California would have to build nearly 3,000 lane-miles of freeway plus five airport runways and 90 departure gates by 2020, with a price tag of at least twice what it would cost to implement the high-speed train system and with much higher environmental impacts.

This declaration is based on what the “Due Diligence Report” authors present as “their facts.” Here is a more likely scenario.

California’s population continues to grow, albeit not as fast as it did previously, and the economy is in desperate need of a jumpstart.

Unless new transportation solutions are found, traffic will only get worse and airport delays will continue to increase, hindering the economy and eroding California’s quality of life. To serve the same number of travelers as the high-speed train system, California would have to build nearly 3,000 lane-miles of freeway plus five airport runways and 90 departure gates by 2020, with a price tag of at least

twice what it would cost to implement the high-speed train system and with much higher environmental impacts. What's more, the proposed high-speed train system will provide lower passenger costs than travel by automobile or air for the same city-to-city markets.

California's planned 220 mph high-speed train system will cost less than half as much as building more freeway lanes and airport runways and will increase mobility while cutting air pollution and reducing the greenhouse gas emissions that cause global warming. In addition to relieving traffic congestion by keeping cars off the roads, the system will eliminate traffic delays at existing at-grade railroad crossings by replacing crossings with overpasses or underpasses. And by moving people and goods quicker and cheaper than they are now, the system will boost productivity to new heights. When it comes to safety, studies have shown that high-speed trains will reduce the number of traffic accidents on roads and highways. Plus, high-speed trains have the best record of passenger safety of any mode of transportation everywhere in the world.

Interconnectivity

Another charge:

"In California, the overwhelming majority of HSR trips are likely to require a car at one or both ends to complete the trip in a reasonable time and with reasonable comfort." ("A Due Diligence Report")

According to CHSRA, California's proposed high-speed train system will be highly compatible with local and regional plans supporting rail systems and transit-oriented development, and will improve intermodal connectivity with local and commuter transit systems.

California Proposition 1A ensured that complementary rail capital improvements will be funded by a \$950 million local portion of bond funds. These funds must be allocated to intercity, commuter and urban rail systems and provide direct connectivity and benefits to the high-speed train system and its facilities or be part of the construction of the system.

In contrast to highway improvements that encourage sprawl, high-speed trains are consistent with the State's adopted smart growth principles and are highly compatible with local and regional plans that support rail systems and transit-oriented development. All high-speed train stations will be multi-modal transportation hubs that will stimulate denser infill development and will be linked directly to local and regional transit systems, airports, and highways.

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High-speed trains will act as a catalyst for wider adoption of smart growth principles in communities near high-speed train stations. To meet the Authority's adopted objectives, the station locations that were selected would provide linkage with local and regional transit, airports, and highways. In particular, convenient links to other rail services (heavy rail, commuter rail, light rail, and conventional intercity) will increase ridership and pedestrian activity at these hub stations. Most of the 26 potential stations identified are located in the heart of the downtown/central city area of California's major cities. By eliminating potential greenfield sites, the proposed system meets the objectives of minimizing potential impacts on the

environment and maximizing connectivity with other modes of transportation. These locations also would have the most potential to support infill development and transit oriented development.

Short-Distance Riders

On a related front, “A Due Diligence Report” states:

“CAHSRA’s ridership numbers are over-optimistic because almost no one will ever choose HSR over driving for shorter, commuter-like trips (under 100 miles). At the same time, they claim that the low-speed Northeast Corridor is instructive for projecting what CAHSRA ridership might look like.”

The California High-Speed Rail blogger Robert Cruickshank notes that the report’s claim that shorter-distance riders will comprise only a trivial fraction of HSR riders is completely refuted by the Northeast Corridor data that the authors of “A Due Diligence Report” argue should be instructive. “The Northeast Corridor serves around 10 million long-distance intercity riders per year and 60 million shorter-distance, commuter riders per year. Thus the ratio of short-distance to long-distance riders is 6:1. Even if the Metro North’s New Haven line is omitted, the Northeast Corridor still serves over 30 million shorter-distance riders per year (ratio of 3:1).

“All the same, the fact that even ‘A Due Diligence Report’ shows HSR has a cost advantage of around 3:1 vis a vis airlines and 4:1 vis a vis cars should give us a great deal of confidence in its ability to successfully attract ridership and generate a substantial operating profit.”

“All the same, the fact that even ‘A Due Diligence Report’ shows HSR has a cost advantage of around 3:1 vis a vis airlines and 4:1 vis a vis cars should give us a great deal of confidence in its ability to successfully attract ridership and generate a substantial operating profit,” Cruickshank observed.

In his summation, Cruickshank writes:

“Given the horrible factual inaccuracies of the report (so bad that some of them must be intentional), I agree that going forward it is sufficient to dismiss anything from the Reason Foundation or these authors by simply noting that their track record on telling the truth is abysmal.”

Diversion from Highways and Airways

Continuing its attack on ridership estimates, “A Due Diligence Report” charges:

“CAHSR will divert a total amount of highway traffic equivalent to only 175 lane-miles of capacity.”

By the report’s own (very low) ridership estimates, HSR will carry at least 35 million passenger miles per weekday, writes Robert Cruickshank, the California High-speed Rail blogger:

“This claim does not pass the laugh test. Using the report’s own ridership estimates, HSR will carry at least 35 to 45 million passenger-miles per weekday. 175 lane-miles of highway capacity is only sufficient to transport 4-5 million vehicle miles travelled per day, so by their own calculations only about 1 in 10 HSR riders will be a road-diverted driver. They also claim

that HSR will have limited success in capturing airline passengers, so fully 80 percent or more of the passengers in their ridership forecasts are induced demand. This is an incredible result that no reasonable economic model could generate. It also strengthens the case for HSR, rather than weakening it, because induced demand is better than demand captured from other modes. If HSR steals people from highways or airplanes, all that we can conclude is that it provides a product that is at least as good as those modes. But if HSR induces new travel, we can conclude that it is providing a product that is superior to those modes, since people who before refused to use either air or highways are now being induced to travel by the new superior modal option.”

“Even if ridership increased fifteenfold over Amtrak levels, the effects on congestion, national fuel consumption, and emissions would still be trivial. Land-use patterns would change modestly, if at all; cutting 20 minutes off travel times between New York and Philadelphia wouldn’t much alter real estate development in either. Nor is high-speed rail a technology where the United States would likely lead; European and Asian firms already dominate the markets.” (Robert J. Samuelson, “High-Speed Pork” *Washington Post*, November 1, 2010)

Amtrak, in its September 2010 “Vision for High-Speed Rail in the Northeast Corridor,” projects a 45% reduction in travel time between Washington and New York and the same between New York and Boston—approximately two hours downtown to downtown and more than competitive with current air travel.

Under its Next-Gen NEC High-Speed Rail proposal, Amtrak envisions a mode shift that would have 57% of travel in the corridor happening via highways, four percent by air, 13% by conventional rail, and 26% by high-speed rail. These shifts are similar to the experience of both the French and the Spanish with their high-speed rail systems.

In his report to the Coalition of Northeast Governors, “Northeast Demographics Are Supportive of Intercity Rail Service,” Matthew Coogan noted that, “No region of the country is better suited to support the higher speed intercity rail systems that are the objective of the nation’s high-speed intercity rail vision and investment program.

The Northeast is home to more than 60 million people. It represents approximately six percent of the nation’s land mass, and more than 20 percent of its population. The region’s overall density of population is about 3.5 times the density of the country as whole—a greater level of population density than that of any of the potential rail corridors in the nation.

“The Northeast’s population settlement patterns have been influenced by the transportation corridors shaped by geography and history. As a result, the population is densely settled around transportation rail corridors proposed for improvement. The rail corridors connect some of the largest metropolitan areas with each other, and also connect the many small metropolitan and the more than 50 ‘micropolitan’ areas that form a critical part of the region’s economic fabric. Of the region’s 60 million people, more than 90 percent of them live within 50 miles of an existing or proposed multi-state rail service—and more than 80 percent live within 25 miles. On average the density of settlement within 25 miles of the rail system is over 650 persons per mile—comparable with many European markets supported by rail.”

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While the current high-speed rail technology may be European and Asian, the “Buy America” provisions of the administration’s passenger rail initiative require that at least 80% of the equipment (both rail and rolling stock) be American made. Indeed all of the current foreign manufacturers have expressed intent to build factories and train American workers to produce their products for America’s re-emerging passenger rail industry. Talgo, the Spanish train manufacturer, had announced and was proceeding with plans to build a plant in Ohio that would have employed at least 125 skilled craftsmen until the newly-elected Ohio Governor pulled the plug on his state’s passenger rail improvement project.

While the current high-speed rail technology may be European and Asian, the “Buy America” provisions of the administration’s passenger rail initiative require that at least 80% of the equipment (both rail and rolling stock) be American made.

Additionally, under PRIIA, standards bodies have been organized and are presently promulgating performance standards that will address the American passenger rail technology.

“They have a point. Passenger rail’s competitiveness with air and automobile traffic is far from established—as Amtrak’s perennial federal operating subsidies show. Even high-speed bullet trains don’t offset enough plane or car traffic to reduce America’s carbon footprint by much.” (“Not All Aboard: Mr. Obama vs. the States on High-Speed Rail,” *Washington Post*, November 17, 2010)

Comparing the proposed passenger rail improvement initiative with the current Amtrak operations would be good, if done credibly, and it would produce a very favorable view of what is proposed. But to suggest that what is being proposed is more of “Amtrak as we know it” operating over well-worn and under-maintained freight rail lines misses the primary goal of this initiative altogether.

The vision, as stated in April 2009 by the administration is:

“. . . to transform the nation’s transportation system, by rebuilding existing rail infrastructure while launching new high-speed passenger rail services in 100-600 mile corridors that connect U.S. communities. Similar to how the interstate highways and the U.S. aviation system were developed in 20th century: partnership between public sector and private industry, including strong federal leadership that provided a national vision.”

In the case of California, the CHSRA states that the most recent ridership forecasts for the California High-Speed Train Project estimates between 88–117 million passengers annually by 2030 for the entire 800-mile high-speed train network connecting Sacramento, the San Francisco Bay Area, Central Valley, Los Angeles, Orange County, the Inland Empire, and San Diego.

Of the 33 million air trips forecast to be made in the year 2030, over a third or 12 million would be attracted to high-speed trains, bringing the level of air traffic in the state back to the levels of 2000, slightly higher than it is today. In other words, most of the growth in air traffic would be diverted, leaving airport capacity for international and out-of-state flights.

Of the 911 million auto travelers forecast in 2030 to make trips between the 14 proposed California regions, about 6% or 50 million would be attracted to high-speed trains. Within the regions that have several stations (Los Angeles Basin, the Bay Area, and San Diego County) high-speed trains will attract another 25 million auto trips, less than 1% of the local urban area auto travel.

“Contrary to the claims of high-speed rail and mass transit enthusiasts, the presence of such systems (transit and rail) does not lure drivers out of their cars and into trains. Between 1980 and 2009, for example, U.S. Census Bureau data cited by Wendell Cox in a recent Heritage Foundation study showed a 12.7 percent increase in the number of drivers in three large metropolitan areas that are considered prime markets for mass transit—Baltimore, San Francisco, and Washington, D.C. The same data showed a 19.5 percent decrease in the number of people using mass transit rail and bus systems.” (“High-Speed Rail: Obama’s Gift that Nobody Wants,” *Washington Examiner* Editorial, February 10, 2011)

It would not be surprising to find that the number of drivers in any of these three cities has increased by at least 12.7 percent over a 30 year period. As to the 19.5 percent decline in mass transit rail and bus systems in the same period, the first quarter 2011 Ridership Report of the American Public Transportation Association (APTA) shows a decidedly different picture for these three cities.

One more attack on ridership:

“Based upon an examination of the market and the international experience with ridership projections, it appears that the CAHSRA 2030 ridership projections are absurdly high. It is likely that the HSR will fall far short of its revenue projections, leading to a need for substantial additional infusions of taxpayer subsidies.” (“A Due Diligence Report”)

In an August 2010 letter to California State Senator Alan Lowenthal, the California High-speed Rail Authority informed the California General Assembly of the results of an extensive peer-review examination carried out in light of the charges leveled at the efficacy of the Authority’s ridership projections. In part the Authority wrote:

“Following the request of the State Senate Transportation and Housing Committee, the . . . Authority . . . contracted with the Institute of Transportation Studies at the University of California, Berkeley (ITS), to prepare a peer review of the Bay Area/California High-speed Rail Ridership and Revenue Forecast Study. The scope of the work for the peer review involved reviewing the documentation related to the ridership and revenue model developed by Cambridge Systematic (CS) between 2005 and 2007 under a separate contract with the Metropolitan Transportation Commission (MTC).

. . . After careful review of the ITS Final Report, we conclude that the CS has provided a direct and credible response to each technical point raised and that the ridership model has been, and continues to be, a sound tool for use in high-speed rail planning and environmental analysis. As the Authority continues to update and refine its ridership analysis the input of the ITS and other interested parties as well as future peer review will help contribute to improving our work.”

“Let’s suppose that the Obama Administration gets its wish to build high-speed rail systems in 13 urban corridors . . . What would we get for this huge investment?

“Not much. Here’s what we couldn’t get: any meaningful reduction in traffic congestions, greenhouse gas emissions, air travel, oil consumption or imports.” (Robert J. Samuelson, “High-Speed Pork” *Washington Post*, November 1, 2010)

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Mr. Samuelson is attacking the initial investment in a gravely neglected passenger rail system because, in fact, the initial investments are just that. The administration did not say the initial \$10.5 billion appropriated, nor the additional \$53 billion requested as part of its 2012 budget proposal would deliver a completed, updated national passenger rail network. The administration said this is a down payment on a long-term initiative that is similar in size and scope to President Eisenhower's interstate highway initiative.

“Evidence from Japan and Europe indicates that expansion of rail does not stop increases in road transportation and would not reduce dependence on foreign oil. In fact, the opposite has occurred. Since high-speed rail was built, rail has lost market share to cars.” (“Cut, Don't Promote, High-Speed Rail,” Diana Furchtgott-Roth, *Washington Examiner*, February 10, 2011)

Wikipedia, while not the last word in transportation research, does offer this insightful, and highly footnoted discussion on the comparative advantages and impact of high-speed rail in Europe and Japan:

“High-speed rail is often viewed as an isolated system and simply as advantageous or disadvantageous as compared to other transport systems, but all transport systems must work together to maximize benefits. A good HSR system has capacity for non-stop and local services and has good connectivity with other transport systems. HSR, like any transport system, is not inherently convenient, fast, clean, nor comfortable. All of this depends on design, implementation, maintenance, operation, and funding. Operational smoothness is often more indicative of organizational discipline than technological prowess.

Due to current infrastructure designs in many nations, there are constraints on the growth of the highway and air travel systems. Some key factors promoting HSR are that airports and highways have no room to expand, and are often overloaded. High-speed rail has the potential for high capacity on its fixed corridors (double decked E4 Series Shinkansen can carry 1,634 seated passengers, double that of an Airbus A380 in all economy class, and even more if standing passengers are allowed), and has the potential to relieve congestion on the other systems. Well-established high-speed rail systems in use today are more environmentally friendly than air or road travel.

This is due to:

- displaced usage from more environmentally damaging modes of transport
- lower energy consumption per passenger kilometer
- reduced land usage for a given capacity compared to motorways

Automobiles: High-speed rail has the advantage over automobiles in that it can accommodate more passengers at speeds far faster than those allowed by car in most countries. The lower limit for HSR (200 km/h, 125 mph) is substantially faster than the highest road speed limit in most countries. Ignoring the few countries without a general speed limit, the speed limit is rarely higher than 130 km/h (80 mph). For journeys that connect city centre to city centre, HSR's advantage is increased due to the lower speed limits (and frequent traffic jams) within most urban areas. Generally, the longer the journey, the better the time advantage of rail over road if going to the same destination.

Moreover, railroad tracks permit a far higher throughput of passengers per hour than a road the same width. A high-speed rail needs just a double track railway, one track for each direction. A typical capacity is 15 trains per hour and 800 passengers per train (as for the Eurostar sets), which implies a capacity of 12,000 passengers per hour in each direction. By way of contrast, the Highway Capacity Manual gives a maximum capacity for a single lane

of highway of 2,250 passenger cars per hour (excluding trucks or RVs). Assuming an average vehicle occupancy of 1.57 people (“Fact #257: March 3, 2003–Vehicle Occupancy by Type of Vehicle”. U.S. Department of Energy, Energy Efficiency, and Renewable Energy), a standard twin track railway has a typical capacity 13% greater than a 6-lane highway (3 lanes each way), while requiring only 40% of the land (1.0/3.0 versus 2.5/7.5 hectares per kilometer of direct/indirect land consumption). This means that typical passenger rail carries 2.83 times as many passengers per hour per meter (width) as a road. Some passenger rail systems, such as the Tokaido Shinkansen line in Japan, have much higher ratios (with as many as 20,000 passengers per hour per direction). Congested roadways tend to be commuter—these carry fewer than 1.57 persons per vehicle (Washington State Department of Transportation, for instance, uses 1.2 persons per vehicle) during commute times. Congestion also causes the maximum throughput of a lane to decrease.

Aircraft Optimal Distance: The ETR 500 “Frecciarossa” of the Italian Railways. Maximum speed: 300 km/h (190 mph) Takes 1 hour from downtown Milan to the centre of Bologna, while a plane+taxi takes an hour and a half to do the same distance.

While commercial high-speed trains have maximum operating speeds much slower than jet aircraft, they have advantages over air travel mostly for relatively short distances, and can be an integral part of a transportation system. They also connect city centre rail stations to multiple other city centre rail stations (with an intermediate stop passenger loading/unloading time of one or two minutes), while air transport necessarily connects airports outside city centres to other airports outside city centres (with a stop time for intermediate destinations of 30 minutes to 1 hour). Both systems complement each other if they are well designed and maintained.

HSR is best suited for journeys of 2 to 3 hours (250–900 km or about 150–550 miles), for which the train can beat both air and car in this range. When traveling less than about 650 km (400 mi), the process of checking in and going through security screening at airports, as well as the journey to the airport itself makes the total air journey time no faster than HSR. However, anecdotally, competition authorities in Europe treat HSR for city pairs as competitive with passenger air at 4 to 4.5 hours, allowing a 1 hour flight at least 40 minutes at each point for travel to and from the airport, check-in, security, boarding, disembarkation, baggage retrieval, and other waits.

However, unless air travel is severely congested, merely providing a comparable service is often not a compelling financial basis for building an HSR system from scratch. As a rule of thumb, rail journeys need to be four hours or thereabouts to be competitive with air travel on journey time. One factor which may have a further bearing on HSR’s competitiveness is the general lack of inconvenience when using HSR: For example the lack of a requirement to check baggage, or repeated queuing for check in, security, and boarding as well as a typically high on-time reliability as compared to air. Separately, from a business traveler’s perspective, HSR can offer amenities such as cellular phone network availability, booth tables, more elaborate power outlets (AC mains outlet vs. DC 12 V outlet), more elaborate food service, no low altitude electronics ban, self service baggage storage area at end of car (eliminating checked baggage), and on for example Franco-German TGV-Est, wireless internet broadband.

There are routes where high-speed trains have totally beaten air transport, so that there are no air connections any more. Examples are Paris–Brussels and Cologne–Frankfurt in Europe, as well as Tokyo–Nagoya, Tokyo–Sendai, and Tokyo–Niigata in Japan. If the train stops at a big airport, like Paris and Frankfurt, these short distance airplanes lose an extra advantage for the many travelers who want to go to the airport for a long-distance journey. Airplane tickets can

include a train segment for the journey, with guaranteed rebooking if the connection is missed, like normal air travel.

HSR is also competitive with cars on shorter distances, like 50–150 kilometres (31–93 mi) for example for work commuting if there is road congestion, or for people who have expensive parking fees at their work. For large cities this is common. Not every HSR route has such regional high-speed trains, but it is common. Introduction of them enlarges the labor market around a large city.

China Southern Airlines, China's largest airline, expects the construction of China's high-speed railway network to impact on 25% of its route network in the coming years ("China Southern Says Railways to Hurt 25% of Routes," Bloomberg.com).

"Although air travel has higher speeds, more time is needed for taxiing, boarding (fewer doors), security check, luggage drop, and ticket check. Also rail stations are usually located nearer to urban centers than airports. These factors often offset the speed advantage of air travel for mid-distance trips."

Market shares: Statistics from Europe indicate that air traffic is more sensitive than road traffic (car and bus) to competition from HSR, at least on journeys of 400 km and more—perhaps because cars and buses are far more flexible than planes (on the shortest HSR journeys, like Augsburg–Munich, which is served by four ICE routes, air travel is no alternative). TGV Sud-Est reduced the travelling time Paris–Lyons from almost four to about two hours. The rail market share rose from 49 to 72%. For air and road traffic, the market shares shrunk from 31 to 7% and from 29 to 21%, respectively.

Other considerations: Although air travel has higher speeds, more time is needed for taxiing, boarding (fewer doors), security check, luggage drop, and ticket check. Also

rail stations are usually located nearer to urban centers than airports. These factors often offset the speed advantage of air travel for mid-distance trips."

"A recent World Bank report on high-speed rail systems around the world noted that ridership forecasts rarely materialize and warned that 'governments contemplating the benefits of a new high-speed railway . . . should also contemplate the near-certainty of copious and continuing budget support for the debt.'" ("A Railroad to Ruin," *Washington Post* editorial, February 17, 2011)

The same could be said of virtually every passenger infrastructure initiative. At the same time, there are many such infrastructure initiatives that far exceed their ridership estimates. That said, it is curious that the *Post* would pull out this quote from the report and not the concluding statement of that same report summary which said:

"The combination of supportive features that exist on the eastern plains of China including very high population density, rapidly growing disposable incomes, and the prevalence of many large cities in reasonable proximity to one another (creating not just one city-pair but a string of such pairs) are not found in most developing countries. Nor could all countries assemble the focused collective capacity building effort and the economies of scale in construction costs that arise when a government can commit the country, politically and economically, to a decades-long program over a vast land area. Even in China, the sustainability of railway debt arising from the program as it proceeds will need to be closely monitored and payback periods will not be short, as they cannot be for such 'lumpy' and long-lived assets. But a combination

of those factors that create favorable conditions of both demand and supply comes together in China in a way that is distinctly favorable to delivering a successful high-speed rail system.”

“The administration claims that high-speed rail would be faster, cheaper, and easier than building more freeways or adding to an already overburdened aviation system—but has published no supporting analysis.” (“Cut, Don’t Promote, High-Speed Rail,” Diana Furchtgott-Roth, *Washington Examiner*, February 10, 2011)

Two congressional studies authorized by the Congress as part of the last surface transportation authorization, and scores of research projects sponsored by universities and other research organizations of good standing have thoroughly documented the present levels of congestion and disrepair on both the highways and the aviation system, as well as the need for a third alternative, i.e. passenger rail, to relieve the transportation system and make our economic engine run better.

We can not pave the nation and expect relief on the roadways, and there is only so much sky in which to fly planes. That said, there will be and should be continued efforts to improve and maintain both highways and the aviation system. But the relief such efforts may provide will only be short-lived if there is not also a vast upgrade to America’s passenger rail system. As other nations have discovered, passenger rail, including high-speed rail where appropriate, is a reasonable, practical, affordable, and timely solution.

Environmental Benefits

On the environmental front, the “A Due Diligence Report” argued:

“Claims about HSR’s environmental benefits have been greatly overstated. California HSR will do little to reduce CO₂ emissions (greenhouse gas emissions). Based upon California Air Resources Board projections, HSR would ultimately remove CO₂ emissions equal to only 1.5% of the current state objective. This is a small fraction of the CAHSRA’s exaggerated claims of “almost 50%” of the state objective. The Intergovernmental Panel on Climate Change (IPCC) has indicated that for between \$20 and \$50 per ton of reduced greenhouse gases emissions, deep reversal of CO₂ concentrations can be achieved between 2030 and 2050. A McKinsey report indicates that substantial CO₂ emission reductions can be achieved in the United States for less than \$50 per ton. Yet the cost per ton of CO₂ emission removal by HSR is far higher—between 39 and 201 times the international IPCC ceiling of \$50. The reality is that HSR’s impact on CO₂ would be inconsequential while being exorbitantly costly.

Hence, HSR’s CO₂ emission reduction strategy cannot be legitimately included as an element of a rational strategy for reducing GHG emissions. In view of the untenable traffic impact projections and other factors, CAHSRA’s claims are considered specious. There is a need for an objective, independent assessment of HSR’s CO₂ impacts, including both operations and construction. Until such an analysis is completed, CAHSRA should cease making any statements about CO₂ or other air quality impacts.” (“A Due Diligence Report”)

Emissions from trains, be they conventional or high-speed, are about two thirds that of airplanes, and one third less that automobiles.

The issue of the carbon footprint is a collateral benefit. Emissions from trains, be they conventional or high-speed, are about two thirds that of airplanes, and one third less that automobiles. And the higher the passenger load, the greater the greenhouse benefit. Overall, environmental analysts estimate that between 12 billion and 6 billion pounds of CO₂ can be eliminated by diverting passengers from air and auto travel in passenger rail corridors ranging from 100 to 600 miles in length.

Regarding the “green nature” of high-speed rail, the U.S. Department of Transportation believes they have sufficient data to demonstrate that the administration’s passenger rail improvement initiative promotes economic expansion (including new manufacturing jobs), creates new choices for travelers in addition to flying or driving, reduces national dependence on oil, and fosters urban and rural community development.

Further, the Department contends that today’s intercity passenger rail service consumes one-third less energy per passenger-mile than cars, and estimates that if high-speed rail lines are ultimately built on all federally-designated corridors, it could result in an annual reduction of 6 billion pounds of CO₂. For its part, Amtrak forecasts, based on EPA and Department of Energy evaluation factors, that travel-related emissions and energy consumption savings in the Northeast Corridor alone would be approximately \$400 million over the initial 30 years of its Northeast Corridor passenger rail improvement program.

The California High-speed Rail Authority in 2008 issued a draft environmental impact review/environmental impact study (EIR/EIS) that among other impacts addressed air pollution issues including greenhouse gasses. The draft EIR/EIS noted that it only calculated CO₂ for alignment alternatives that reflected emissions from electrical power stations, planes, and onroad vehicles miles traveled (VMT). The highway component was based on potential daily VMT reductions of 32.691 million miles. The air travel component was based on potential reductions of 52,876 daily trips.

Additionally, the Climate Change Scoping Plan produced by the California Air Resources Board (CARB) (pursuant to AB 32) in 2008 includes the HST system as one of the state’s fundamental strategies in meeting the 2020 emissions reduction goals. By 2020, the HST system is expected to have just started operations between San Francisco and Anaheim and is estimated to be only at 26% of the full ridership levels—resulting in a reduction of one million metric tons of CO₂ equivalent.

According to the California High-Speed Rail Authority, there were no “costing projections” developed yet for the air quality portions of the EIR/EIS. Therefore, it is not possible that the authors of the “A Due Diligence Report” could make any credible statement regarding the cost of reducing greenhouse gas emissions in 2008.

In defense of the California High-Speed Rail Authority, however, if the passenger rail service is powered by electricity the greenhouse emissions will depend on the energy source. If it is powered by diesel, then we know—even in today’s terms—that diesel locomotives are more efficient by ton/mile than autos or airplanes.

On its website, the American Association of State Highway and Transportation Officials (AASHTO) lists the following environmental and energy benefits from high-speed rail:

ENERGY EFFICIENCIES OF PASSENGER RAIL

- 2,709—The number of British Thermal Units used per passenger mile by train, compared to 3,264 by airline and 3,445 by auto (U.S. Department of Energy, 2005).
- 17 percent—Passenger rail is 17 percent more fuel efficient than airlines on a per passenger mile basis. (U.S. Department of Energy, USDOT Preliminary National Rail Plan).
- 21 percent—Passenger rail is 21 percent more fuel efficient than vehicles on a per passenger basis (U.S. Department of Energy, USDOT Preliminary National Rail Plan).
- 8 million—Number of autos that passenger rail service displaces from the roads each year. (National Association of Rail Passengers).

- 50,000—The number of fully loaded passenger airplanes that passenger rail displaces each year (National Association of Rail Passengers).

ENVIRONMENTAL BENEFITS

- 71 percent—reduction of carbon dioxide emission by train, per passenger mile, compared to auto.
- 76 percent—reduction of carbon dioxide emission by train, compared to air.

To reinforce the impression that improved passenger rail service will have minimal value Randal O'Toole complains in his June 18, 2009 *Gainesville (FL) Sun* op/ed that:

“High-speed rail will not be energy efficient and will not be less polluting than driving.”

But the FRA states that today's intercity passenger rail service consumes one-third less energy per passenger-mile than cars. It is estimated that if we built high-speed rail lines on all the federally-designated corridors, it could result in an annual reduction of 6 billion pounds of CO₂.

In its 2010 publication, “High-speed Europe,” the European Union noted:

“At a time when climate change is high on the political and social agenda, the attraction of rail transport is even greater, due to its low environmental impact. Out of 25.1 % of CO₂ emissions attributable to transport in the EU-7 in 2007, only 0.6 % were from rail, which carried over 6 % of all passengers and nearly 11% of freight.

High-speed trains are powered by electricity and their carbon footprint is therefore almost zero in their operating zones, although the CO₂ emitted during electricity generation does need to be taken into account. This rate varies depending on the primary energy used to generate the electricity consumed by HSLs. If it is generated from solid fossil fuels (coal), as in Poland or Germany, HSLs obviously have a bigger carbon footprint. However, the development of renewable and/or nuclear energy will allow this impact to be reduced in future.

Although the environmental impact of HSLs can also be reduced by improving the energy efficiency of trains and working on other elements of the vehicle, the carbon footprint of rail travel is still much smaller than that of air or road travel. In the case of a journey from Paris to Marseilles, CO₂ emissions in grams per passenger-kilometre (g/pkm) are just 2.7 g/pkm by HS train, compared with 153.0 g/pkm by air and 115.7 g/pkm by car. From the point of view of energy efficiency, HSTs also perform better, using 12.1 grams of petrol per passenger-kilometre, compared with 17.6 for conventional trains, 18.3 for a coach, 29.9 for a car and 51.5 for an aircraft.”

Cost Overruns

On the cost overrun front, “A Due Diligence Report” said:

“To determine a more realistic construction cost estimate, it should first be noted that capital costs have risen 50% to \$49.0 billion in 2008\$ (or \$45.4 billion in 2006\$) at the same time the Oakland–East Bay–San Jose line (referred to as the “Missing Phase” in this report) has been dropped from the plan. It is estimated that including the Missing Phase would raise the cost to \$54.3 billion (2008\$), based upon CAHSRA projections. The system, including Phase I, Phase II and the Missing Phase is likely to escalate in costs to between \$65.2 billion and

\$81.4 billion (2008\$). Additional segments, referred to as the “Implied Phase” (Altamont Pass, Anaheim–Irvine, and the Dumbarton Bridge over lower San Francisco Bay) would raise costs even further.”

Given their track record of exaggeration, this is the most reasonable part of the “A Due Diligence Report.” According to Robert Cruickshank, the California High-speed Rail project blogger:

“There is some non-zero probability that this could happen. In contrast, their other claims are laughably inaccurate.”

“That said,” Cruickshank, the California High-speed Rail Authority blogger writes:

“Cost overruns are a potential flaw of any infrastructure project, so if they want to make their argument based on cost overruns then they have to oppose virtually all public infrastructure projects. Cost overruns should be discussed with respect to reason and evidence. (“A Due Diligence Report”) treats them like some inexorable law of physics, which is nonsense.”

Related to cost per mile of ridership, “A Due Diligence Report” states:

“Operating costs will be 4.8 cents/seat miles rather than the 3.5 cents/seat mile.”

While the authors want readers to be troubled by this statement, consider that the operating costs for U.S. airlines are 11.9 cents/seat mile (April 2008), and on the short California airline routes seat/mile costs, according to the CHSRA, will be closer to 14-15 cents seat/mile. AAA estimates average car or truck operating costs at 17-24 cents/mile (sedan is lowest, SUV is highest). So even using the report’s own figures, high-speed rail can undercut airlines by 65 percent. More likely, writes blogger Cruickshank, “high-speed rail would undercut airlines by, say, 35 percent and then give the additional 30 percent back to the state (or, in the first couple decades, use it for system expansion.)”

As a point of comparison, on page 10 of its September 2008 report on the economic effect of high-speed rail investment, the Joint Transport Center of the European Union wrote that the average cost per/km of the European high-speed rail systems was about 9 cents (approximately 14.4 cents per mile).

Cost of Construction Compared

We read similar arguments in Chapters II and V, but it’s worth revisiting.

“The average cost for highway lane widening projects is \$6 million/lane mile and the average cost per/mile of a new San Francisco Bay Bridge will be \$33 million.” (“A Due Diligence Report”)

This statement is wildly out of line according to Caltrans. The most recent Caltrans highway widening projects have averaged around \$20-40 million/lane mile. And the cost per/mile of the current Bay Bridge (which should be much cheaper than a future one, given the argument about escalating costs) was \$260 million/lane mile. CHSRA’s cost projections are not going to be exact at this point, but they will never be anywhere as wildly inaccurate as those reflected in “A Due Diligence Report.”

According to the Joint Transport Center of the European Union in its September 2008 report on the economic effect of high-speed rail investment:

“From the actual building costs (planning and land costs, and main stations excluded) of 45 HSR lines in service, or under construction, the average cost per km of HSR line ranges

from 9 to 40 million Euros (\$9.5 to \$42.25 million per mile) with an average of 18 million Euros (\$19 million per mile). The upper values are associated to difficult terrain conditions and crossing of high density urban areas.”

By comparison, “In 1996 dollars (according to the Federal Reserve 1996 and 2008 dollars were of almost equivalent value), the Federal Highway Administration calculated the “weighted rural and urban combined” costs per mile of interstate highway to be \$20.6 million.” (Source: “Typical Interstate System Cost per Mile”, Document Route Symbol HNG-13 (March 21, 1997), U.S. Department of Transportation, Federal Highway Administration, Federal-Aid & Design Division. The document was received by fax on June 2, 1997 from C. Duran of the FHA. The cost per rural mile is \$9.84 million and the cost per urban mile is \$44.13 million.)

Safety and Security

Regarding safety and security, “A Due Diligence Report” charges:

“The Authority assumes minimal security at HSR train stations and concludes passengers will be spared airport-like security screening and delays. However, should more stringent security measures become necessary, the CAHSRA’s ridership demand forecasts would be even further undermined. The CAHSRA has not issued a low-end ridership forecast based on such circumstance.”

This is another of the author’s feeble attempts to confuse readers by suggesting that the Authority is not providing reliable information or is overlooking a major potential cost.

In fact, while not specifically calling out details about the planned passenger safety and security features of the proposed system, including its October 23, 2008 Business Plan, the Authority makes it quite clear that the passenger safety and security elements of the California High-Speed Rail system will be in full compliance with applicable Federal and state laws and regulations.

Jobs Creation and Economic Impact

On the issue of jobs creation and economic impact, critics say:

“Potential benefits cited are job creation, decreased traffic congestion, reduced dependence on oil, increased rural development, and a potentially rich new market for rail equipment makers.

Proponents of high-speed rail have exaggerated its benefits. Much railroad equipment is imported. Transportation jobs can be created through expansion of highways, using private funding from tolls rather than taxpayer dollars. And additional high-speed rail is unlikely to ease traffic congestion, because traffic congestion occurs within cities, rather than outside them.” (“Cut, Don’t Promote, High-Speed Rail,” Diana Furchtgott-Roth, *Washington Examiner*, February 10, 2011)

This is the same collection of rants that is propagated on a regular basis from the likes of the Reason Foundation, the CATO and Hoover Institutes, the Heritage Foundation and good old Wendell Cox.

The job creation benefits are documented in, among many sources, a 2007 Federal Highway Administration study that identified that for every \$1 billion invested in infrastructure development, 20,000 long- and short-term jobs are created.

The job creation benefits are documented in, among many sources, a 2007 Federal Highway Administration study that identified that for every \$1 billion invested in infrastructure development, 20,000 long- and short-term jobs are created.

The American Association of State Highway and Transportation Officials, on their website (AASHTO.org) substantiates the number of highway mile/lanes that can be replaced by commuter and intercity passenger rail service, as well as the impact transit and intercity rail can have on energy consumption. The Urban Institute, Transportation For America, and the National Council of State Legislatures document the urban renewal impact of transit and passenger rail. Finally, in both the PRIIA and the American Reinvestment and Recovery Act of 2009 (ARRA), strict “Buy American” provisions require that at least 80 percent of the equipment and material procured to build and operate America’s newly rejuvenated passenger rail system, including high-speed rail, be built and acquired from companies based in the United States and employing American workers.

It’s hard to be more straightforward than that!

The Cost of Opposition

The “A Due Diligence Report” dedicated a section to what the authors called “Opposition.” Ostensibly the opposition is the “Not in My Back Yard” (NIMBY) and “Build Absolutely Nothing Anywhere Near Anyone” (BANANA) crowd. In reality, the opposition is anyone the opponents and critics of the intercity passenger and high-speed rail development initiative can rally. So in effect, the issues raised are the blueprint for how these opponents will, and have proceeded.

“Obstacles to high-speed rail, as well as funding include the lengthy environmental review and approval process for construction, and technology requirements for separate rights of way for high-speed rail.

While comparable for station-to-station travel, rail loses the ‘high-speed’ advantage over cars when travel is suburb-to-suburb.

Because steel wheels and steel rails cannot be quickly stopped, rail trains need miles of empty space in front of them. Expressways, on the other hand, can carry more than 2,000 cars, or 1,000 buses per lane per hour, so have much bigger carrying capacities.” (“Cut, Don’t Promote, High-Speed Rail,” Diana Furchtgott-Roth, *Washington Examiner*, February 10, 2011)

In the first instance, high-speed rail is not alone in facing the challenges of funding and the time required for project review. Every infrastructure project today faces funding and approval process challenges. In today’s litigious society filled with so many “Not-In-My-Backyard” types, even the simplest projects can take years to go from concept to the first shovel of dirt being turned. These delays have become so common, and so expensive, that Congress is holding hearings in conjunction with the debate over the forthcoming surface transportation reauthorization legislation to determine if there are ways to expedite the review process for all infrastructure initiatives.

Regarding technology requirements, high-speed rail is a different technology than conventional rail, but it is also a well proven technology with nearly half a century of safe application in Europe and Japan. High-speed rail does require a grade separated and secured track system, but in most parts of the nation where high-speed rail is being discussed, engineers and planners are working to make that happen. It’s not an insurmountable obstacle.

High-speed rail, for that matter virtually all intercity passenger rail service, works best when it is part of a highly integrated transportation system. With the exception of the first leg of the proposed Florida high-speed rail corridor, virtually all proposed corridors link downtowns to downtowns and major airports with the intention of tying the intercity passenger rail service to local services including commuter rail, transit, and highways. Even in those areas where such complementary transportation services may not presently exist, there are plans to put those elements in place to enable travelers to get wherever they desire efficiently and economically.

Stopping is not a problem for high-speed train sets. In fact, most high-speed rail systems in the world run with headways of between three and eight minutes with trains reaching well over 200 mph between stations. That's why high-speed rail has had the impact it has in most countries in terms of its ability to compete with and be recognized as a popular alternative to both the airplane and the automobile.

The challenge America faces is that its roadways and airways are highly congested and overburdened. Compounded with both the scarcity of oil and the environmental impact of fossil fuel reliance, it is vital for the future of the nation to develop a well-balanced transportation system that can help solve, not perpetuate current problems well into the decades ahead.

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“As Cox points out, cost estimates for the Florida train seem underestimated and the ridership estimates seem wildly inflated. If he’s even partially right, Florida taxpayers will be paying billions for this white elephant over the years.” (“High-Speed Rail Is a Fast Way to Waste Taxpayer Money,” Michael Barone, *Washington Examiner*, January 18, 2011)

As has already been noted, though Wendall Cox and the Reason Foundation successfully convinced the new Florida governor to kill, at least temporarily, the Sunshine state’s high-speed rail initiative, the state’s department of transportation unveiled a Wilbur Smith study demonstrating that the first leg of the state’s 324 mile high-speed rail corridor would actually generate a \$10 million surplus in its first year of operation and as much as a \$28 million surplus by its 10th year of operation.

Most recently the themes reflected in “A Due Diligence Report” have resurfaced in reports from the California Legislative Analysts Office and the California State Auditors Office, both of which received input from the Reason Foundation, and in an attack by Randal O’Toole on a study done for the Michigan Department of Transportation. In each case, the bottom line accusation was that the estimates of benefits were grossly overstated.

Proponents of the intercity and high-speed passenger rail initiative would be well served to pay heed to the guidance provided in “Mega-Projects and Risk,” as well as take stock of the lessons learned from recent skirmishes with the critics to ensure credibility and veracity of the initiative going forward.

CONCLUSION

Through this paper the limited, but often repeated monologue of critics who attack the current national intercity passenger and high-speed rail initiative has been explored and exposed for its lack of veracity and vision.

The United States is facing numerous challenges both foreign and domestic. Perhaps the most trying of these challenges is the unwillingness and/or inability to marshal the leadership and innovative capabilities to address the faltering state of the nation's infrastructure, especially its transportation infrastructure.

Over the past three administrations (Clinton, Bush, and Obama) efforts have been mounted to encourage the reinvigoration of an important passenger transportation mode that served as the vital link uniting the east with the west of a young nation, and later served as the vital transportation mode for American soldiers during times of war.

Following World War II, passenger rail became the orphan child of a transportation system increasingly transformed by the automobile and commercial aviation. But as the unintended consequences of over-dependence of those modes became more evident and more severe, interest has returned to building a reliable and efficient intercity passenger rail system and laying the ground work for a world class network of high-speed rail.

Beyond the basic arguments that “no one rides passenger trains,” and therefore any effort to reinvigorate passenger rail service in the United States is a waste of money, critics now attempt to couch their opposition based on the “financial crisis” facing government at all levels, especially at the federal level. The critics charge it is a transportation service we simply can't afford until the nation's fiscal house in order.

Through this project it is hoped that advocates for passenger rail, and especially high-speed passenger rail, are enlightened and provided the tools to engage both the critics as well as those who may be sympathetic to the critics' arguments.

If America is to once again have the world's leading passenger transportation system and build a high-speed passenger rail network for the 21st century, it will be up to passenger rail advocates to seize the leadership, offer the vision, make the sacrifices to make it a reality, and respond aggressively to critics and their inaccuracies.

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POSTSCRIPT

In response to the recent criticism leveled at the California High-Speed Rail Authority by the California Legislative Analysts Office, the following op/ed appeared in the *Sacramento Bee* on Tuesday, June 7, 2011. This article speaks volumes to the critics who wish to stop the nation's intercity passenger and high-speed rail initiative:

The Sacramento Bee

CASE FOR HIGH-SPEED RAIL GROWS ONLY STRONGER

Tuesday, June 7, 2011

By: Edwin Lee, mayor of San Francisco; Kevin Johnson, mayor of Sacramento;
Chuck Reed, mayor of San Jose; Ashley Swearengin, mayor of Fresno; and,
Antonio Villaraigosa, mayor of Los Angeles.

The last time many Californians thought about high-speed rail was in the voting booth. On that day, Nov. 4, 2008, more than 6 million of us voted to tell the state to get going, to build high-speed rail in California.

Now, 2 1/2 years later, the second guessing is in full swing. In recent weeks some have suggested that we should put the project on hold.

We couldn't disagree more.

California will need high-speed rail in the coming years to do something about the gridlock on our roads and at our airports. Building it is a major investment, but the most recent estimates say it would cost twice as much over the next generation to build new highways and runways just to move the same number of people. With California expected to grow by 12 million people in the next 25 years, investment in the state's transportation system is inevitable, and high-speed rail is a cost-effective alternative.

In the last 2 1/2 years the case for high-speed rail has gotten stronger, not weaker. When voters approved the plan, a barrel of oil cost about \$55; today the price is almost \$100. Unemployment was around 8 percent back then, and it is now over 12 percent statewide and even higher in many areas. Californians need the jobs.

There are bound to be questions with any project of this size. We welcome the dialogue. Last month, the Legislative Analyst's Office published a report calling for at least a temporary halt to the project. The report alluded to a number of concerns about the project:

- The amount and timing of future federal funding are unclear.
- Spending state funds on rail will mean there is less money for other things.
- We do not yet know how much private investment the system can attract, or when it will come.
- Starting construction in the Central Valley is "a gamble."

Let's take the criticisms one at a time.

First is federal funding. While we don't know precisely how much we will get in future years, we've competed well up to this point. California's project has received the largest slice of federal high-speed rail funds to date—\$3.6 billion out of \$10.2 billion. This is in large part due to the extensive planning already under way at the state level and the ability to leverage voter-approved Proposition 1A funds. There is no other program where California competes so well for federal funding. We will continue to encourage additional investment—both public and private—while promoting efficiencies that allow us to stretch every dollar in creating jobs and planning for the future growth of this great state.

Second is state funding. The voters said high-speed rail was a priority and authorized spending \$9 billion in state funds. The state continues to experience fiscal constraint due to diminishing revenues, but because construction is ramping up slowly we will only need 2 percent of these funds in the coming year to keep the project on track. The amount approved by voters will be spent over many years, keeping the impact on our state's budget low in any given year.

Third is private funding. Our high-speed rail system is expected to make money and attract private investment—similar to systems in Europe and Asia. Twenty-two different funds have shown investment interest in financing part of the system's capital costs. Demonstrating our commitment by beginning major construction and finalizing all the approvals will minimize investor risk and net the best terms for the taxpayers.

Finally, there is the matter of where to start building. Many Southern Californians have said we should give priority to their part of the state; same in the Bay Area. We know that this system will never be a success until it connects these two population centers and does so in a way that is sensitive to local concerns. But the question of where to start does not require complicated analysis. The place to start is the place where we're ready to start, and that's the Central Valley.

No one thinks we should build the line through the Central Valley and then stop. And we won't. There is a parallel to the building of the Interstate Highway System more than 50 years ago. When we started building the Interstate Highway System, the first segments to be completed were not in New York or Los Angeles. The interstate was born in the middle of the country, America's heartland, with the very first sections laid in Kansas and Missouri and then connected to the rest of the nation.

On the day that first segment of interstate was dedicated, we did not know where all the money would come from to build a 40,000-mile network throughout the nation, and we did not know when it would be finished. However, it was because of the vision of those who were willing to initiate the effort that, today, America has the most extensive highway system in the world.

California and the United States need high-speed rail, so let's keep going.

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<http://www.sacbee.com/2011/06/07/v-print/3681606/case-for-high-speed-rail-grows.html>

Acknowledgements

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Peterson has held significant leadership roles on Capitol Hill, with national and regional transportation associations, and within the U.S. Department of Transportation where he was the first Deputy Administrator of the Research and Innovative Technology Administration. He currently serves as a Research Associate for the Mineta Transportation Institute at San Jose State University.

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The American Public Transportation Association (APTA)

The American Public Transportation Association (APTA) is a nonprofit international association of more than 1,500 public and private member organizations, engaged in the areas of bus, paratransit, light rail, commuter rail, subways, waterborne services, and intercity and high-speed passenger rail. This includes: transit systems; planning, design, construction, and finance firms; product and service providers; academic institutions; transit associations and state departments of transportation. APTA members serve the public interest by providing safe, efficient and economical transit services and products. More than 90 percent of the people using public transportation in the United States and Canada ride APTA member systems.

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