# High Speed Rail Neg

[High Speed Rail Neg 1](#_Toc327701322)

[A/T Solvency 5](#_Toc327701323)

[Geography (1/3) 6](#_Toc327701324)

[Geography (2/3) 7](#_Toc327701325)

[Geography (3/3) 8](#_Toc327701326)

[Too Expensive (1/2) 9](#_Toc327701327)

[Too Expensive (2/2) 10](#_Toc327701328)

[No One Will Use It (1/7) 11](#_Toc327701329)

[No One Will Use It (2/7) 12](#_Toc327701330)

[No One Will Use It (3/7) 13](#_Toc327701331)

[No One Will Use It (4/7) 14](#_Toc327701332)

[No One Will Use It (5/7) 15](#_Toc327701333)

[No One Will Use It (6/7) 16](#_Toc327701334)

[No One Will Use It (7/7) 17](#_Toc327701335)

[Construction Too Long (1/1) 18](#_Toc327701336)

[Public Opposition (1/2) 19](#_Toc327701337)

[Public Opposition (2/2) 20](#_Toc327701338)

[Not Fast (1/2) 21](#_Toc327701339)

[Not Fast (2/2) 22](#_Toc327701340)

[No Technology (1/1) 23](#_Toc327701341)

[Government Can’t Solve (1/3) 24](#_Toc327701342)

[Government Can’t Solve (2/3) 25](#_Toc327701343)

[Government Can’t Solve (3/3) 26](#_Toc327701344)

[Not Safe 27](#_Toc327701345)

[Wheel Malfunctions (1/1) 28](#_Toc327701346)

[Earthquakes (1/1) 29](#_Toc327701347)

[Highway Conflicts (1/1) 30](#_Toc327701348)

[A/T Environment Advantage 31](#_Toc327701349)

[Global Warming 32](#_Toc327701350)

[Transportation Sector not Key (1/1) 33](#_Toc327701351)

[HSR Doesn’t Solve Global Warming (1/2) 34](#_Toc327701352)

[HSR Doesn’t Solve Global Warming (2/2) 35](#_Toc327701353)

[HSR Increases CO2 (1/3) 36](#_Toc327701354)

[HSR Increases CO2 (2/3) 37](#_Toc327701355)

[HSR Increases CO2 (3/3) 38](#_Toc327701356)

[Biodiversity 39](#_Toc327701357)

[HSR Hurts Environment (1/5) 40](#_Toc327701358)

[HSR Hurts Environment (2/5) 41](#_Toc327701359)

[HSR Hurts Environment (3/5) 42](#_Toc327701360)

[HSR Hurts Environment (4/5) 43](#_Toc327701361)

[HSR Hurts Environment (5/5) 44](#_Toc327701362)

[Fragmentation (1/3) 45](#_Toc327701363)

[Fragmentation (2/3) 46](#_Toc327701364)

[Fragmentation (3/3) 47](#_Toc327701365)

[Pollution 48](#_Toc327701366)

[HSR Increase Pollution (1/3) 49](#_Toc327701367)

[HSR Increase Pollution (2/3) 50](#_Toc327701368)

[HSR Increase Pollution (3/3) 51](#_Toc327701369)

[A/T Econ Advantage 52](#_Toc327701370)

[General 53](#_Toc327701371)

[HSR Bad for Economy (1/4) 54](#_Toc327701372)

[HSR Bad for Economy (2/4) 55](#_Toc327701373)

[HSR Bad for Economy (3/4) 56](#_Toc327701374)

[HSR Bad for Economy (4/4) 57](#_Toc327701375)

[Costs Will Increase (1/2) 58](#_Toc327701376)

[Costs Will Increase (2/2) 59](#_Toc327701377)

[Not Profitable (1/3) 60](#_Toc327701378)

[Not Profitable (2/3) 61](#_Toc327701379)

[Not Profitable (3/3) 62](#_Toc327701380)

[Jobs 63](#_Toc327701381)

[No Jobs (1/3) 64](#_Toc327701382)

[No Jobs (2/3) 65](#_Toc327701383)

[No Jobs (3/3) 66](#_Toc327701384)

[Manufacturing 67](#_Toc327701385)

[No Manufacturing Increase (1/1) 68](#_Toc327701386)

[Manufacturing Not Key to Economy (1/3) 69](#_Toc327701387)

[Manufacturing Not Key to Economy (2/3) 70](#_Toc327701388)

[Manufacturing Not Key to Economy (3/3) 71](#_Toc327701389)

[Oil Shocks 72](#_Toc327701390)

[Does Not Solve Oil Shocks (1/4) 73](#_Toc327701391)

[Does Not Solve Oil Shocks (2/4) 74](#_Toc327701392)

[Does Not Solve Oil Shocks (3/4) 75](#_Toc327701393)

[Does Not Solve Oil Shocks (4/4) 76](#_Toc327701394)

[Oil Shocks Defense (1/1) 77](#_Toc327701395)

[Oil Shocks Good (1/2) 78](#_Toc327701396)

[Oil Shocks Good (2/2) 79](#_Toc327701397)

[Hegemony 80](#_Toc327701398)

[HSR Will Not Boost Leadership (1/1) 81](#_Toc327701399)

[Hegemony Defense (1/2) 82](#_Toc327701400)

[Hegemony Defense (2/2) 83](#_Toc327701401)

[A/T Creature Comfort 84](#_Toc327701402)

[Trains are Uncomfortable (1/1) 85](#_Toc327701403)

[A/T Value to Life (1/2) 86](#_Toc327701404)

[A/T Value to Life (2/2) 87](#_Toc327701405)

[Terrorism 88](#_Toc327701406)

[Terrorists Planning HSR Attack (1/1) 89](#_Toc327701407)

[Attack Likely on HSR (1/4) 90](#_Toc327701408)

[Terrorism Likely on HSR (2/4) 91](#_Toc327701409)

[Terrorism Likely on HSR (3/4) 92](#_Toc327701410)

[Terrorism Likely on HSR (4/4) 93](#_Toc327701411)

[Cyber Terrorism Likely on HSR (1/1) 94](#_Toc327701412)

[Cyber Terrorism Impact (1/2) 95](#_Toc327701413)

[Cyber Terrorism Impact (2/2) 96](#_Toc327701414)

[HSR Terrorism Impact [9/11] (1/3) 97](#_Toc327701415)

[HSR Terrorism Impact [Bioterror] (2/3) 98](#_Toc327701416)

[HSR Terrorism Impact [Econ] (3/3) 99](#_Toc327701417)

[A/T Security Measures Solve (1/2) 100](#_Toc327701418)

[A/T Security Measures Solve (2/2) 101](#_Toc327701419)

[AFF Terrorism Answers 102](#_Toc327701420)

[AFF Answers to Terrorism (1/3) 103](#_Toc327701421)

[AFF Answers to Terrorism (2/3) 104](#_Toc327701422)

[AFF Answers to Terrorism (3/3) 105](#_Toc327701423)

[AFF Answers to Cyber terrorism (1/3) 106](#_Toc327701424)

[AFF Answers to Cyber terrorism (2/3) 107](#_Toc327701425)

[AFF Answers to Cyber terrorism (3/3) 108](#_Toc327701426)

[AFF Answers to Bioterrorism (1/2) 109](#_Toc327701427)

[AFF Answers to Bioterrorism (2/2) 110](#_Toc327701428)

\*\*Be sure to check the impact files for impact defense not included here\*\*

## A/T Solvency

### Geography (1/3)

#### Preexisting and superior industries coupled with the size of the United States make a high speed rail impractical

Michael Barone, a senior political analyst for The Washington Examiner, The Columbus Dispatch, October 14, 2011, http://www.dispatch.com/content/stories/editorials/2011/10/14/high-speed-rail-plan-doesnt-make-sense-for-u-s-.html, accessed 6-13-2012.

Moreover, the idea that it would be great to put high-speed rail lines all over the country shows an underappreciation of American geography and of some of the nation’s genuine strengths. High-speed rail can compete with air travel only over limited distances, but the United States is a continental-sized country. Japan and France, as you may have noticed, are a lot smaller. China, which is continent-sized, too, has been building high-speed rail, but it is cutting back now and slowing down the trains after a bad accident. Brazil, also continent-sized, is dropping plans for a Rio de Janeiro-Sao Paulo line. Its airlines and buses already work fine. America’s alleged lag in high-speed rail is also a consequence of our excellence in freight rail. Over three decades after Jimmy Carter’s deregulation, freight rail has squeezed out costs and made shipped goods much cheaper for all of us. Europe and Japan have lousy freight rail and pay more for things. The reason that’s important is that truly high-speed trains cannot use freight-rail tracks. Freight trains travel slower and have a hard time getting out of the way of passenger trains traveling 200 miles per hour. Japan’s bullet train and France’s TGV operate on dedicated tracks specially built for them. That’s expensive. As a frequent traveler from Washington to New York, I’d love to see a real high-speed train in the Northeast Corridor, the only place in the country where it might make economic sense. But if not having one is the price to be paid for the demise of the Obama high-speed-rail boondoggle, I’m happy to pay it.

#### High Speed Rail requires urban conditions that do not exist in the United States

Samuel Staley, Ph.D., senior research fellow at Reason Foundation, teaches graduate and undergraduate courses in urban planning, regulation, and urban economics, was director of urban growth and land-use policy for RF, “The Pragmatic Case Against High-Speed Rail,” Reason Foundation, June 22, 2009, http://reason.org/blog/show/the-pragmatic-case-against-hig, accessed 6-14-2012.

That said, a more important factor may be more straightforward and direct: Certain preconditions are necessary for corridor transit to work, and they don't exist in the U.S. Most fundamentally, intercity rail needs to connect major urban downtowns or large employment centers that are close together--withing a couple hundred miles of each other. (In this respect, the emphasis on density per se is misplaced; the key is the density of the destinations.) We simply don't have that many large downtowns in the U.S. We have several midsize metro areas, but the downtowns are mere shadows of their former selves and contain a very small minority of the region's job base. High-speed rail is doomed to failure under the best of circumstances because it simply can't generate ridership. Spain and Europe is an interesting case in point: high-speed rail connects very large urban centers with populations in the millions that are closely connected as the "bird flies": London-Paris, Paris-Brussels, Paris-Lyon, Hamburg-Berlin, Florence-Rome, Madrid-Barcelona. Many of these cities are also very large: London and Paris both boast populations greater than 10 million. Rome, Berlin, Madrid, and Barcelona have populations between 2 million and 5 million. In the U.S., Chicago is a metro area of close to 10 million, and its downtown population is about 500,000, but Detroit's entire city is below 900,000 and Cleveland's citywide population is below 500,000. The U.S. has very few corridors that fit the criteria necessary to sustain serious and viable high-speed rail. So, ideology aside, a national network of high-speed rail simply doesn't make sense.

### **Geography (2/3)**

#### **Travel by airplane and automobile are superior to a high speed rail due to preexisting infrastructure and geographic conditions**

Samuel Staley, Ph.D., senior research fellow at Reason Foundation, teaches graduate and undergraduate courses in urban planning, regulation, and urban economics, was director of urban growth and land-use policy for RF, “Can the U.S. Copy Spain's High-Speed Rail System?,” RF, June 19, 2009, http://reason.org/news/show/1007782.html, accessed 6-14-2012.

Touting the Spanish high-speed rail plan as a “national model” for the U.S. is a stretch by most measures. The two countries are simply on different scales. Geographically, Spain is about twice the size of Oregon (or about 20 percent larger than California). Per capita income is lower than California and about equivalent to Oregon. Spain’s economy churns out about $1.4 trillion worth of goods and services every year, a little less than California. Spain’s “national” rail network would be roughly equivalent to building out a web of rails for a regional system in part of the U.S. And it would be more expensive, probably running more than $300 billion for a six thousand mile network similar to Spain’s on the West Cost, Midwest, or East Coast. The cost of mimicking Spain and building a national high-speed rail system that would put 90 percent of the U.S. population within 30 miles of a high-speed rail station would be truly astronomical. But no one in the U.S. is seriously proposing anything close to the kind of national network the Spanish claim to be implementing. On the contrary, most analysts recognize that a truly national high-speed rail system in the U.S. doesn’t make sense. First, high-speed rail can’t compete effectively over long-distances (trips over 500 miles) even under the best of circumstances. Air travel is faster, cheaper, and more cost-effective. For trips under 100 miles, the automobile and existing urban transit almost always provide a superior alternative to high-speed trains. To the extent they can compete, high-speed trains best serve the downtowns of major cities along major corridors, such as Washington, D.C.-Philadelphia-Boston-New York City. Second, major U.S. metropolitan areas are already linked together through the Interstate Highway System and a well-developed network of air-travel corridors. At best, high-speed rail creates redundancy in the system, not added capacity. Rather than improving mobility, high-speed rail would need steep public subsidies to cannibalize traffic from existing, largely unsubsidized commercial air traffic. Third, most of the economic drag from travel delays and congestion is metropolitan, not intercity. The core travel problem faced by U.S. cities and regions is how to improve circulation and reduce traffic congestion within urbanized areas, not how to speed up travel from one major city to the next. Last, but not least, intercity train travel is barely even noticeable in the U.S. travel picture. Amtrak, while taking massive taxpayer subsidies, accounted for just 5.4 million passenger miles in 2006 (the most recent available data). Meanwhile commercial air travel tallied up 590 million passenger miles, and cars accounted for a whopping 2.7 trillion passenger miles.

### **Geography (3/3)**

#### **The U.S. is too large, complex, and wealthy to effectively utilize a high speed rail**

Samuel Staley, Ph.D., senior research fellow at Reason Foundation, teaches graduate and undergraduate courses in urban planning, regulation, and urban economics, was director of urban growth and land-use policy for RF, “Can the U.S. Copy Spain's High-Speed Rail System?,” RF, June 19, 2009, http://reason.org/news/show/1007782.html, accessed 6-14-2012.

Unfortunately, the reality of high-speed rail will fall far short of the hype. The U.S. is too large, too wealthy, and too complex to be transformed by investments in a single mode of transportation, particularly one that focuses on a very small part of the overall travel market and doesn’t fit with the country’s size or geography. Policymakers would serve the American public far better by refocusing their efforts on solutions that would help a broad base of travelers such as reducing urban traffic congestion and upgrading freight corridors to increase the flow of goods and people. The U.S. economy will benefit from the lower transportation costs generated by improved mobility, not shifting travelers from a low-cost transportation service to a high-cost one.

#### Global models for high speed rail are not applicable to the U.S. – population density, fuel prices, and land area

Joseph Vranich, has been involved in rail passenger issues for more than thirty-five years, was President/CEO of the High Speed Rail Association, and Wendell Cox, principal of Demographia, a St. Louis region-based public policy firm. He was appointed to three terms on the Los Angeles County Transportation Commission, “The California High Speed Rail Proposal: A Due Diligence Report.” September 1, 2008, http://reason.org/files/1b544eba6f1d5f9e8012a8c36676ea7e.pdf, accessed 6-14-2012.

The CHSRA in promotional literature frequently cites developments in Europe and Asia to justify building such a system in California.51 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).52 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.53 Conclusion 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.

### Too Expensive (1/2)

#### High speed rails are never completed because the costs become unmanageable

Joseph Vranich, has been involved in rail passenger issues for more than thirty-five years, was President/CEO of the High Speed Rail Association, and Wendell Cox, principal of Demographia, a St. Louis region-based public policy firm. He was appointed to three terms on the Los Angeles County Transportation Commission, “The California High Speed Rail Proposal: A Due Diligence Report.” September 1, 2008, http://reason.org/files/1b544eba6f1d5f9e8012a8c36676ea7e.pdf, accessed 6-14-2012.

High-speed rail systems have been proposed for the United States and have failed to move ahead in Florida, Texas, Pennsylvania, Ohio and in California between Los Angeles and San Diego. All of these projects have been canceled for a variety of reasons, one of which has been the failure to attract commercial investment. Following are summaries of prior studies regarding subsidies, details regarding HSR projects for Texas, Florida and the Los Angeles–San Diego line, and a review of the Northeast Corridor. All have “lessons learned” that are relevant to the California project. The United States in Context The most comprehensive study of the potential for high-speed rail around the United States was prepared for the Federal Railroad Administration (FRA) of the U.S. Department of Transportation (DOT). This study found that commercial revenues would fall far short of operating and capital costs in all studied corridors (Table 3).54 On average, capital and operating subsidy levels of more than 70 percent would be required. Moreover, in an independent review, Professors William L. Garrison and David M. Levinson say it is doubtful whether without considerable subsidy high-speed rail could be constructed, much less be profitable, in the United States.55

### Too Expensive (2/2)

#### **High speed rail funding is ineffective**

Matt Sledge, “True High-Speed Rail Projects Unlikely To Be Fast-Tracked By Jobs Bill Funds,” Huffington Post, September 16, 2011, http://www.huffingtonpost.com/2011/09/16/american-jobs-act-high-speed-rail-amtrak\_n\_966473.html, accessed 6-16-2012.

Todorovich sees plenty of projects in need. Simply modernizing our existing, slow-speed passenger rail system could easily consume all of the rail money in the American Jobs Act. What the jobs bill wouldn't do, however, is transform America's rail network by finishing any true high-speed rail projects that would resemble Japan's bullet trains or France's TGV. Somewhat zippy trains like the Acela could see a boost, but finishing anything more ambitious would prove prohibitively expensive. Amtrak would like to upgrade the Northeast Corridor for high-speed rail, but that idea comes with a price tag of $117 billion. Florida's plan to connect Orlando and Tampa by high-speed rail, considered a top priority project by advocates, might have cost around $4 billion -- but Gov. Rick Scott (R) rejected the federal funds intended for it. "What most high-speed advocates are looking for right now is to keep the funding going until we have a more favorable rail Congress," Todorovich said. After rebukes from the Republican governors of Florida, Ohio and Wisconsin, only one "true" high-speed rail project, one that could travel at 225 mph, is still alive: California's. That state, however, still has yet to break ground on the first segment of its high-speed rail project, which relies in large part on money from the 2009 stimulus. The state will spend billions of dollars on its first segment, but it needs billions more to create a stretch of track that hits enough cities to make running trains worthwhile. High-speed rail, said Robert Puentes of the Brookings Institution's Metropolitan Policy Program, could potentially be "an enormously impactful project." But just how transformative high-speed rail would be, he added, depends on "whether you're going to concentrate these funds on one corridor instead of spreading them around like peanut butter." If California got enough of the $4 billion from the American Jobs Act, it might be able to create an initial operable segment -- North America's first true high-speed train. It wouldn't run between Los Angeles and San Francisco as the project ultimately aims to do, but it might connect places in-between like San Jose and Bakersfield. Whether that train could make money is another question. Critics have cast doubt on the project's ridership estimates, calling them far too optimistic. A spokesperson for the California High-Speed Rail Authority, Rachel Wall, said she thought her state's project would "stand a very good chance at competing well for those funds" in the American Jobs Act. But if President Obama was hoping to win over congressional Republicans, even those whose constituents could stand to benefit under his rail proposals, he may be out of luck. House Majority Whip Kevin McCarthy (R-Calif.) represents Bakersfield, where the high-speed train would make a stop. Construction work there could create jobs in Kern County, where unemployment is currently 14.4%. But McCarthy is still dead-set against high-speed rail. “I continue to believe that California’s High-Speed Rail project is not viable," McCarthy said in a statement to The Huffington Post. "There are simply too many questions regarding the High-Speed Rail Authority’s business model and ridership projections that just don’t add up."

### No One Will Use It (1/7)

#### High speed rail caters to too small of a demographic to make a difference or be considered a mass transit system

Samuel Staley, Ph.D., senior research fellow at Reason Foundation, teaches graduate and undergraduate courses in urban planning, regulation, and urban economics, was director of urban growth and land-use policy for RF, “The Pragmatic Case Against High-Speed Rail,” Reason Foundation, June 22, 2009, http://reason.org/blog/show/the-pragmatic-case-against-hig, accessed 6-14-2012.

Reason Foundation has been spending a fair amount of time criticizing high-speed rail initiatives proposed by states such as California and the federal government. Much of the criticism by our analysts as well as others focuses on the fiscal impacts, the poor design of the proposed corridors, and the unwise tactics of proponents that gloss over the many, many problems these initiatives face if implemented in the U.S. Reason Foundation's contribution can be found in its "Due Diligence" report on the California initiative and in our commentaries. Randal O'Toole has made several contributions to the discussion, and his most recent report can be found here. While these criticisms all have merit, we can't lose sight of the fact the biggest reason high-speed rail won't work in the U.S. is that it doesn't make sense as a project funded from general tax revenues. High-speed rail is not a public good and it's not mass transit. It is corridor transit. At best, it's a niche market serving a highly specialized, relatively wealthy, and narrow customer base (high-income business travelers with expense accounts and tourists). It won't relieve urban traffic congestion and its contribution to improving air quality (or reducing carbon dioxide emissions) will be negligible because it won't carry enough riders to make a big difference. These factors undermine high-speed rail justificatons based on public good arguments.

### No One Will Use It (2/7)

#### The inefficiency of a high speed rail means travelers will not switch over from air travel

Joseph Vranich, has been involved in rail passenger issues for more than thirty-five years, was President/CEO of the High Speed Rail Association, and Wendell Cox, principal of Demographia, a St. Louis region-based public policy firm. He was appointed to three terms on the Los Angeles County Transportation Commission, “The California High Speed Rail Proposal: A Due Diligence Report.” September 1, 2008, http://reason.org/files/1b544eba6f1d5f9e8012a8c36676ea7e.pdf, accessed 6-14-2012.

Another factor driving overestimation of ridership is the CHSRA’s assertions about the speed of the train. But the CHSRA will be unable to meet its speed and travel time objectives—based upon international HSR experience, realistic HSR speeds mean that a non-stop San Francisco–Los Angeles trip would take 3 hours and 41 minutes—59 minutes longer than the statutory requirement of 2 hours, 42 minutes. The CHSRA’s anticipated average speeds are not being achieved anywhere in the world, including on the most advanced systems. CHSRA anticipates average speeds of 197 mph, while France’s TGV-Est averages 174 mph, TGV Paris–Avignon averages 159 mph, Japan’s bullet train averages 159 mph, and Taiwan’s HSR averages 152 mph. Other HSR lines in the world average even slower speeds. Given this reality, the limits of HSR technology, and the reality that at least 150 route miles would be in built-up areas where trains would be forced to slow down, this Due Diligence Report predicts California’s HSR average speeds in urban segments will not exceed 90 mph much less reach 150 mph. The average speed outside urban areas is unlikely to surpass 170 mph. As a result, HSR will be less attractive as an alternative to airline travel and is likely to attract fewer passengers than projected. It is also likely that HSR door-to-door travel times would be greater and there would be considerably less frequent non-stop service than air service.

### No One Will Use It (3/7)

#### Ridership projections are based on flawed data

Joseph Vranich, has been involved in rail passenger issues for more than thirty-five years, was President/CEO of the High Speed Rail Association, and Wendell Cox, principal of Demographia, a St. Louis region-based public policy firm. He was appointed to three terms on the Los Angeles County Transportation Commission, “The California High Speed Rail Proposal: A Due Diligence Report.” September 1, 2008, http://reason.org/files/1b544eba6f1d5f9e8012a8c36676ea7e.pdf, accessed 6-14-2012.

It appears that the CHSRA 2030 ridership projections are absurdly high—so much so that they could well rank among the most unrealistic projections produced for a major transport project anywhere in the world. Under a passenger-mile per route-mile standard, the CHSRA is projecting higher passenger use of the California system than is found on the Japanese and French HSR networks despite the fact that these countries have conditions that are far more favorable to the use of HSR. The CHSRA’s ridership projections reflect assumptions contrary to actual experience, forecasts inconsistent with independent projections, load factors and other calculations that are highly questionable, and reliance on extraordinarily low fares that are not found on similar systems. The CHSRA has been increasing forecasted ridership over time and has issued a Base Projection of 65.5 million intercity riders and a High Projection of 96.5 million intercity riders for 2030. The CHSRA ridership projections are considerably higher than independent figures developed for comparable California systems in Federal Railroad Administration and University of California Transportation Center at Berkeley studies. Using generous assumptions this Due Diligence Report projects a 2030 base of 23.4 million intercity riders, 64% below the CHSRA’s base of 65.5 million intercity riders, and a 2030 high of 31.1 million intercity riders, nearly 60% below the CHSRA’s high of 96.5 million. 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.

### No One Will Use It (4/7)

#### High speed rail is an ineffective and expensive form of transportation

Joseph Vranich, has been involved in rail passenger issues for more than thirty-five years, was President/CEO of the High Speed Rail Association, and Wendell Cox, principal of Demographia, a St. Louis region-based public policy firm. He was appointed to three terms on the Los Angeles County Transportation Commission, “The California High Speed Rail Proposal: A Due Diligence Report.” September 1, 2008, http://reason.org/files/1b544eba6f1d5f9e8012a8c36676ea7e.pdf, accessed 6-14-2012.

The assertion that the Highway and Aviation Alternatives to HSR will cost $82 billion is highly inflated and based on dubious assumptions and fundamental flaws. Examples include the CHSRA proposing far more highway construction than is necessary to accommodate the demand that would exist if HSR were not built. This Due Diligence Report estimates that with realistic estimates regarding highway construction costs and diversion of drivers, HSR could reduce highway construction needs by approximately $0.9 billion. This immense cost difference illustrates how modest a future role HSR will play in reducing highway congestion. In short, meeting the highway demand that would occur if HSR were not built would require much less investment compared to the cost of HSR. Also, diversion of air travelers is over-estimated. The CHSRA assumes that airlines will cancel a large share of the flights within California because passengers will have switched to HSR—and the diversion will free up airport capacity and make it possible to avoid costly airport expansions. This is not the experience even on the premier Japanese and French systems, which show that strong air markets remain after HSR corridors are in operation. Moreover, the CHSRA treats the commercial aviation system as if it is static—as if efficiencies to enhance capacity are impossible. The CHSRA alternatives appear to be of little value in genuine cost analysis and cannot be taken seriously. They are, in fact, little more than “straw men,” which have the effect of misrepresenting the choices that are available to policy makers in California, in such a way that HSR, which is exceedingly expensive, is made to appear affordable.

### No One Will Use It (5/7)

#### Ridership projections are always inflated and expenses deter construction and usage

Joseph Vranich, has been involved in rail passenger issues for more than thirty-five years, was President/CEO of the High Speed Rail Association, and Wendell Cox, principal of Demographia, a St. Louis region-based public policy firm. He was appointed to three terms on the Los Angeles County Transportation Commission, “The California High Speed Rail Proposal: A Due Diligence Report.” September 1, 2008, http://reason.org/files/1b544eba6f1d5f9e8012a8c36676ea7e.pdf, accessed 6-14-2012.

The most comprehensive study on large transportation project projections was by European academics Bent Flyvbjerg, Nils Bruzelius and Werner Rothengatter.108 Their study examined 258 transportation infrastructure “megaprojects” covering seven decades (1927-1998) on five continents. This “world infrastructure research” found a number of difficulties in project financing plans, such as overestimation of customer demand, overestimation of commercial revenues and understatement of capital and operating costs (the latter two points are discussed elsewhere).109 While the principal focus of the research was capital cost overruns, the authors noted: …the problem with cost overrun is exacerbated by the fact that often this problem comes hand in hand with lower-than-estimated revenues. The consequence is projects that are risky to the second degree.110 The world infrastructure research found that overly optimistic ridership projections have been the rule rather than the exception, concluding that “Traffic estimates used in decision making for rail infrastructure development are highly, systematically and significantly misleading. Rail passenger traffic forecasts are consistently and significantly inflated.”111 Such faulty forecasts influenced the construction of systems that produced lower than anticipated financial returns, which in turn have resulted in higher than planned public subsidies. The world infrastructure research also found that costs are routinely underestimated. (See Part 4, Forecasting Costs.)

### No One Will Use It (6/7)

#### Slow travel speeds and few non-stop expresses will result in low interest in high speed rail

Joseph Vranich, has been involved in rail passenger issues for more than thirty-five years, was President/CEO of the High Speed Rail Association, and Wendell Cox, principal of Demographia, a St. Louis region-based public policy firm. He was appointed to three terms on the Los Angeles County Transportation Commission, “The California High Speed Rail Proposal: A Due Diligence Report.” September 1, 2008, http://reason.org/files/1b544eba6f1d5f9e8012a8c36676ea7e.pdf, accessed 6-14-2012.

CHSRA claims that HSR would enable travel between downtown Los Angeles and downtown San Francisco in 2 hours and 38 minutes. However, this Due Diligence Report estimates that the fastest non-stop expresses would take much longer—3 hours and 41 minutes. (See Part 4, Forecasting Speed, Federal Safety Standards and Security in Age of Terrorism for additional reasons for potentially slower trip times.) Slower travel speeds would reduce the attractiveness of HSR relative to airlines and result in lower levels of ridership. Moreover, there will be few non-stop expresses, perhaps from four to six trains between the two downtown stations daily (See Part 4, Passenger Convenience). This means that most if not all trains will fail to achieve the aggressive travel time that CHSRA projects. Each stop added to a train schedule lengthens its travel time. Less frequent express trains will make HSR less competitive with airlines and reduce its potential to achieve the CHSRA ridership projections.

#### High speed rail is not more attractive than air or car travel – inefficient and costly

Joseph Vranich, has been involved in rail passenger issues for more than thirty-five years, was President/CEO of the High Speed Rail Association, and Wendell Cox, principal of Demographia, a St. Louis region-based public policy firm. He was appointed to three terms on the Los Angeles County Transportation Commission, “The California High Speed Rail Proposal: A Due Diligence Report.” September 1, 2008, http://reason.org/files/1b544eba6f1d5f9e8012a8c36676ea7e.pdf, accessed 6-14-2012.

HSR would provide virtually no advantage as an alternative for long-distance (airline) markets, because door-to-door travel times would be greater and there would be less frequent non-stop service. Similarly, HSR would be unattractive to car drivers in middle-distance (automobileoriented) markets because little or no door-to-door time savings would be achieved and costly local connections would often be required (rental cars or taxicabs). Potential passengers are promised that HSR will whisk them between the Los Angeles and San Francisco Bay areas with travel times of little more than two and one-half hours. All trips by passengers are from one point to another point. High-capacity (non-personal) modes of transport such as trains and airplanes do not provide point-to-point mobility. All trips start with walking, transit or driving from the origin to the train station or airport and then end with driving, transit or walking to the final destination from the train station or airport. As a result, door-to-door travel times are longer than the time spent in a plane or train.

### **No One Will Use It (7/7)**

#### Car travel is comparatively better than high speed rail in the U.S. – flexibility, operating costs, individual fares, expensive taxis and rental cars

Joseph Vranich, has been involved in rail passenger issues for more than thirty-five years, was President/CEO of the High Speed Rail Association, and Wendell Cox, principal of Demographia, a St. Louis region-based public policy firm. He was appointed to three terms on the Los Angeles County Transportation Commission, “The California High Speed Rail Proposal: A Due Diligence Report.” September 1, 2008, http://reason.org/files/1b544eba6f1d5f9e8012a8c36676ea7e.pdf, accessed 6-14-2012.

HSR is less successful in competing against autos in the longer distance markets where HSR competes well against airlines. HSR has three principal disadvantages in attracting ridership from autos. Flexibility. Automobile travel offers greater flexibility in time of departure, route selection, and ability to stop at multiple locations more easily than when traveling on a scheduled train or airplane. CALIFORNIA HIGH SPEED RAIL 83 Costs. The first HSR disadvantage is cost—generally the operating costs of an auto will be less than the HSR (or air) fare.347 This is an even more important factor when more than one person is traveling in an auto, since HSR would require payment of a fare for each person, while the auto operating cost would be the same with two or more people as with a single occupant. Moreover, unlike travel by auto, it is generally necessary to hire taxis or rental cars at the non-home destination, which adds significantly to costs. There is also the possibility of parking fees at the HSR station. All of these costs are likely to deter drivers from using HSR.

### Construction Too Long (1/1)

#### High speed rail would take decades and billions of dollars to construct if it is even possible

Joseph Vranich, has been involved in rail passenger issues for more than thirty-five years, was President/CEO of the High Speed Rail Association, and Wendell Cox, principal of Demographia, a St. Louis region-based public policy firm. He was appointed to three terms on the Los Angeles County Transportation Commission, “The California High Speed Rail Proposal: A Due Diligence Report.” September 1, 2008, http://reason.org/files/1b544eba6f1d5f9e8012a8c36676ea7e.pdf, accessed 6-14-2012.

The HSR system can be categorized as a “mega-project,” one taking many years to decades and many billions of dollars to construct and put in operation. Such mega-projects run high risks of failing to meet their ridership projections, financial forecasts and other objectives. This analysis compares the CHSRA’s proposed system with major HSR systems operating overseas. It is noteworthy that California is proceeding with HSR plans based on assumptions that may be appropriate to European and Asian environments but hold little applicability in the state. Moreover, 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 any commercial HSR proposal.

### Public Opposition (1/2)

#### Even if their evidence says people support high speed rail, public opposition will dramatically increase when HSR’s consequences are fully understood

Joseph Vranich, has been involved in rail passenger issues for more than thirty-five years, was President/CEO of the High Speed Rail Association, and Wendell Cox, principal of Demographia, a St. Louis region-based public policy firm. He was appointed to three terms on the Los Angeles County Transportation Commission, “The California High Speed Rail Proposal: A Due Diligence Report.” September 1, 2008, http://reason.org/files/1b544eba6f1d5f9e8012a8c36676ea7e.pdf, accessed 6-14-2012.

Emerging public opposition will likely spread as site-specific urban, suburban and rural impacts become better understood. It is unlikely that the California HSR program will find smooth sailing among impacted communities. This finding is based in part on nascent opposition to the project. Opposition to prior HSR projects has been based on underestimated costs, overestimated ridership, eminent domain and environmental impacts. Also, the credibility of HSR promoters has waned as pledges of “no subsidy” or “only low subsidies” turned into calls for high subsidies. This Due Diligence Report identifies such factors as weaknesses in the CHSRA planning process. In prior cases opponents have shown great resourcefulness in sustaining campaigns to oppose HSR construction. Opposition could spread, particularly in communities where train speeds and noise would be considered excessive, where massive elevated railways would create a “Berlin Wall” effect that divides communities—a prospect that has caused Menlo Park and Atherton to join in a lawsuit against the CHSRA’s environmental review process—or where a history of staunch opposition exists, such as in Tustin or San Diego County.

#### Public opposition has prevented high speed rails from being built – other projects can solve the same problems

Joseph Vranich, has been involved in rail passenger issues for more than thirty-five years, was President/CEO of the High Speed Rail Association, and Wendell Cox, principal of Demographia, a St. Louis region-based public policy firm. He was appointed to three terms on the Los Angeles County Transportation Commission, “The California High Speed Rail Proposal: A Due Diligence Report.” September 1, 2008, http://reason.org/files/1b544eba6f1d5f9e8012a8c36676ea7e.pdf, accessed 6-14-2012.

Similarities can be found in the failures of the Florida, Texas and California projects. Sustained public opposition is just one of a number of factors contributing to their demise. Understated cost estimates also caused controversies. In California, to appease critics along the Los Angeles–San Diego line, promoters pledged costly changes to plans such as tunneling or taking tracks into submerged trenches with landscaped sides, yet the overall price for the system never seemed to reflect such alterations.104 Concern is growing about the current CHSRA project. The California Chamber of Commerce announced its opposition based on costs, with President and CEO Allan Zaremberg stating, “There are other projects that mitigate congestion that should be a higher priority.”105 Jon Coupal, president of the Howard Jarvis Taxpayers Association, pointed out that the HSR bonds are not “free money,” and with the state carrying significant debt the HSR bonds could further lower the state’s bond rating.106

### Public Opposition (2/2)

#### The public will refuse a high speed rail project – multiple reasons

Joseph Vranich, has been involved in rail passenger issues for more than thirty-five years, was President/CEO of the High Speed Rail Association, and Wendell Cox, principal of Demographia, a St. Louis region-based public policy firm. He was appointed to three terms on the Los Angeles County Transportation Commission, “The California High Speed Rail Proposal: A Due Diligence Report.” September 1, 2008, http://reason.org/files/1b544eba6f1d5f9e8012a8c36676ea7e.pdf, accessed 6-14-2012.

Planning has been cancelled for several high-speed rail projects in the United States and public opposition has been a major contributing factor. The impact of the proposed California system cannot be fully understood at this stage of the planning process. The Authority’s documentation recognizes that planners will more thoroughly understand impacts later in the process: Most of the potential impacts associated with the implementation of the proposed [HSR] system are highly site-specific in nature. These site-specific issues would be addressed during subsequent project level environmental review, based on more precise information regarding location and design of the facilities proposed. . . . Only after the alignment is refined and the facilities are fully defined through project level analysis, and site-specific avoidance and minimization efforts have been exhausted, would specific impacts and mitigation measures be addressed.457 Once such site-specific impacts have been identified, opposition is likely to build among affected citizens, community organizations and public officials. The greater the impact, the greater the opposition. Objections typically are raised when the HSR system runs the risk of: 􀂃 Increasing noise and disrupting the quality of life, particularly in residential areas and near schools. 􀂃 Creating new physical barriers such as sound walls, overpasses and trenches that result in a physical disruption to community cohesion. 􀂃 Provoking a decline in property values because of noise or the above physical barriers, which can limit visibility or be unsightly. CALIFORNIA HIGH SPEED RAIL 117 􀂃 Using eminent domain proceedings to take homes, businesses and agricultural lands from unwilling owners. 􀂃 Constructing rail lines that split farm lands and ranches in the Central Valley, a practice sometimes called “landlocking” or “severance.” 􀂃 Altering the environment of parks and wilderness areas by the noise and infrastructure associated with the project.

### Not Fast (1/2)

#### Issues specific to U.S. cities would prevent a high speed rail from being as fast as is promised

Joseph Vranich, has been involved in rail passenger issues for more than thirty-five years, was President/CEO of the High Speed Rail Association, and Wendell Cox, principal of Demographia, a St. Louis region-based public policy firm. He was appointed to three terms on the Los Angeles County Transportation Commission, “The California High Speed Rail Proposal: A Due Diligence Report.” September 1, 2008, http://reason.org/files/1b544eba6f1d5f9e8012a8c36676ea7e.pdf, accessed 6-14-2012.

More importantly, it appears that it will be challenging for HSR to achieve the statutorily required travel times. This is indicated by comparing the proposed speeds to the fastest operating segments in other countries operating HSR (Table 10). The CHSRA documentation provides express operating times between stations. The longest segment of route not in one of the five largest urban areas is from Palmdale to Gilroy. The Authority indicates an express operating time of 1 hour and 35 minutes for this 312-mile segment. At that speed, HSR would average 197 mph, which is unprecedented anywhere in the world. This is a full 25 mph faster than France’s fastest TGV service (on the TGV-Est, the world’s fastest HSR line), which is on a much shorter segment. It is also 38 mph faster than the world’s fastest operating segment that is longer than Palmdale to Gilroy (TGV, Paris to Avignon). Moreover, the California HSR speed challenges are generally greater than those faced by other HSR systems. This conclusion results from an analysis of route length, share of length in built-up (urban) areas and projected speed estimates as contained in project documents. On the California route, approximately one-third of the operation will be in urban areas (built-up areas), while in France, less than one-tenth of the operation is in urban areas. In contrast to the California HSR proposal, French high-speed rail trains generally have only their terminal stations in urban cores (such as Paris and Marseille on the Paris–Marseille line), with intermediate stations located outside urban areas or in very low density suburban areas. This allows higher speeds for longer distances.

#### High speed rail promises high speeds that are geographically impossible in the U.S.

Joseph Vranich, has been involved in rail passenger issues for more than thirty-five years, was President/CEO of the High Speed Rail Association, and Wendell Cox, principal of Demographia, a St. Louis region-based public policy firm. He was appointed to three terms on the Los Angeles County Transportation Commission, “The California High Speed Rail Proposal: A Due Diligence Report.” September 1, 2008, http://reason.org/files/1b544eba6f1d5f9e8012a8c36676ea7e.pdf, accessed 6-14-2012.

Higher mountain passes and greater elevation changes can slow high-speed rail. The Paris– Marseille route is far more “HSR friendly” than the San Francisco–Los Angeles route. Paris– Marseille is largely at low elevations, facilitating higher speeds, and has a single significant pass of approximately 1,500 feet. The California line would encounter more challenging topography. The line would begin at near sea level in Los Angeles, reach approximately 4,000 feet between Sylmar and Bakersfield, drop back to near sea level in the San Joaquin Valley, return to more than 1,000 feet in the Pacheco Pass, and then drop again to near sea level in the San Francisco Bay Area. These operating conditions would tend to reduce speeds relative to the Paris–Marseille line. Yet, HSR projections call for a higher average speed on the California line than on the Marseille line. A Los Angeles–San Jose non-stop train is slated for an average speed of nearly 180 mph, according to CHSRA.214 The fastest average travel time for non-stop Paris–Marseille trains is approximately 155 mph.215

### Not Fast (2/2)

#### “High speed rail” in the U.S. is impossible – track conflicts will create an inefficient system

Robert Poole, Searle Freedom Trust Transportation Fellow and Director of Transportation Policy, Reason Foundation, “High-Speed Rail Plans Should Be Called Moderate-Speed Rail,” May 5, 2009, http://reason.org/news/show/1007490.html, accessed 6-14-2012.

My thoughts in this piece reflect several decades of transportation research, all of which leads me to be skeptical of high-speed rail. I report these findings with some dismay, since I am a life-long rail fan who's gone out of his way to ride the rails on four continents (as well as being a life-long model railroader). But the task of a transportation researcher is to report what's true, not what he wishes were true. Let's begin by getting clear on what is meant by "high-speed rail." In the United States, this term means anything in excess of 110 mph. The only U.S. train that goes (briefly) faster than that is Amtrak's Acela service on the Northeast Corridor route; all other current Amtrak lines have a top speed of 79 mph. Nearly all of the 10 corridor proposals in contention for a piece of the federal $13 billion are planning upgrades of existing passenger service to get to 110 mph. As unambitious as those projects may sound, they are more than capable of absorbing most or all of the $13 billion. These corridors serve a mix of freight and passenger trains, with the former tending to be very long and operating at speeds that seldom exceed 60 mph. To enable 110 mph passenger trains to operate on these tracks will require major upgrades to signaling systems and the addition of passing sidings. And if priority is given to an expanded number of passenger trains, that means the freight trains will spend even more time than they do now stopped on mile-long (or longer) sidings. And that conflict between freight and passenger service is one of the little-noticed problems with what really should be called "moderate-speed rail." You can optimize a rail network for freight or for passenger service, but not for both. The current US rail network is optimized for freight, and as a result, rail's share of US freight ton-miles is about 40 percent. By contrast, Europe's network is optimized for passenger trains, and as a result, rail's share of freight ton-miles is only 10-15 percent. Wendell Cox has crunched the numbers and estimated that the carbon-intensity of goods movement is about 25 percent higher in Europe than in the USA. True high-speed rail (HSR) is represented by the bullet trains in Japan, France, Spain, and Germany, with speeds of 150-200 mph. Those relatively few routes are built, out of necessity, on exclusive rights of way—with wider curves, shallower grades, and full grade separation. That makes their cost much higher than the moderate-speed rail featured in (most of) the Obama plan. A table in a recent Government Accountability Office report on the subject (GAO-09-317) shows the construction cost of recent overseas HSR lines, in 2008 dollars. Except for an outlier in Japan that cost $143 million/mile, they averaged $51 million per mile to construct (i.e., these figures do not include the vehicles). Thus, a 300-mile system would cost $15.3 billion. Despite various claims to the contrary, the Government Accountability Office found: "In each of the countries we visited, the central government paid the up-front construction costs of their country's high-speed rail lines, and did so with no expectation that its investment would be recouped through ticket revenues." Thus, claims about "profits" that appear in the media refer only to operating profits—and even those appear to occur on only some of these lines. In the U.K., for instance, The Economist reports that in 2007 the British government subsidized the operating costs of UK rail operators to the tune of $6.6 billion. The new HSR line that opened in Taiwan in 2007 lost $1.5 billion in its first year of operation. University of Paris transport economist Remy Prud'Homme estimates that overall, passenger rail service in the European Union 15 receive about $100 billion in subsidies each year. The only one of the 10 U.S. corridors with an actual HSR (as opposed to moderate-speed) plan in place is California. The California High-Speed Rail Authority (CHSRA) expects to raise about one-third of the capital cost of this very ambitious project from private investors. Anyone interested in considering such an investment should go to the Reason Foundation website and download the "due diligence" report that was released last September. Researchers Wendell Cox and Joseph Vranich review the reasonableness of CHSRA's numbers—the construction costs (significantly under-stated), ridership (completely unbelievable, by comparison either with the far denser Northeast Corridor or overseas systems), travel times, mode share, etc. Of particular note is the CHSRA's now-abandoned claim that the rail system would reduce CO2 emissions sufficient to meet "almost 50%" of the state's goal. In fact, the California Air Resources Board found the true figure to be about 1.5%. And the cost per ton of achieving even that miniscule change would range from a low of $1,949 to a high of $10,302. The widely accepted benchmark for cost-effective CO2 reduction is $50/ton. I take no joy in reporting all this, but I do so in hopes of reducing the damage to the U.S. economy from pouring (ultimately) hundreds of billions of dollars into rail projects that don't do what people hope and expect them to do. One of the first lessons of Economics 101 is that because resources are always limited, if you spend $300 billion on X, it's not available to spend on Y. Putting huge sums into projects whose benefits are far less than their costs is not a recipe for prosperity but for the opposite: making the country poorer.

### No Technology (1/1)

#### No train exists that can meet U.S. standards – these challenges will make the project even more costly

Joseph Vranich, has been involved in rail passenger issues for more than thirty-five years, was President/CEO of the High Speed Rail Association, and Wendell Cox, principal of Demographia, a St. Louis region-based public policy firm. He was appointed to three terms on the Los Angeles County Transportation Commission, “The California High Speed Rail Proposal: A Due Diligence Report.” September 1, 2008, http://reason.org/files/1b544eba6f1d5f9e8012a8c36676ea7e.pdf, accessed 6-14-2012.

In short, no train yet exists that can meet the CHSRA’s extraordinary performance standards and capacity while adhering to U.S. safety standards. The CHSRA told the California Senate Transportation and Housing Committee that it has “worked with the Federal Railroad Administration to allow light weight foreign high-speed rail equipment to operate in California.”278 What this means is unclear. However, any such “work” prior to a serious and formal process that is open to public review and comment is likely to have little or no impact. A series of steps never before achieved anywhere in the world must be taken for the CHSRA-style train to move beyond the conceptual stage—namely, a train must be designed and built with the capacity to: 􀂃 Operate at a peak speed of 220 mph. 􀂃 Meet U.S. crashworthiness standards and safety standards for mixed-track usage. 􀂃 Carry up to 1,200 or even 1,600 passengers, certainly making it the heaviest and possibly longest high-speed train in the world. 􀂃 Incorporate a more powerful propulsion system to enable moving a longer, heavier train through the challenging physical environments found in the state’s mountain passes. 􀂃 Meet the schedules mandated in California law. Designing such a train will involve unprecedented engineering challenges, so much so that the train design could make the system less competitive commercially.

### Government Can’t Solve (1/3)

#### The federal government has historically failed with rail transportation – privatization is better

Kate Hinds, “Republicans: Privatizing Amtrak Will Bring High Speed Rail to the NE Faster,” Transportation Nation, June 15, 2011, http://transportationnation.org/2011/06/15/republicans-privatizing-amtrak-will-bring-high-speed-rail-to-the-ne-faster/, accessed 6-16-2012.

Republicans said today that privatizing the Northeast Corridor would bring high-speed rail to the country faster — and more cheaply — than Amtrak can. Congressman John Mica, the chair of the House Committee on Transportation and Infrastructure, has never hidden his disdain for Amtrak — or his enthusiasm for partnering with the private sector. In a statement today, he said: “After 40 years of highly-subsidized, poorly-managed Amtrak operations, it’s time for Congress to change the direction of America’s failed high-speed and intercity passenger rail service…After spending billions of dollars, Amtrak and its snail speed, last-century level of service have reached the end of the line.” The plan, which Mica unveiled today along with Congressman Bill Shuster, is called the “Competition for Intercity Passenger Rail in America Act.” The pair introduced it in a video conference. A draft of the legislation can be found here. The goal is to separate the Northeast Corridor — Amtrak’s busiest route — from the rest of the system, transfer title from Amtrak to the US Department of Transportation, and put development of high-speed rail along the corridor out for bid. Republicans said this plan would increase ridership, lower costs, and bring fast trains to the corridor in less than ten years.

#### Government planning of mass transit is not even effective in Europe – would fail miserably in the U.S.

Randal O’Toole, has spent more than 30 years studying government planning for both environmental and free-market groups, senior fellow at CATO, “Why Government Planning Always Fails,” CATO, September 29, 2007, http://www.cato.org/publications/speeches/why-government-planning-always-fails, accessed 6-16-2012.

Most people know the housing bubble is sending tremors throughout our economy, but few realize it was ultimately caused by planners trying to socially engineer our cities. Yet that social engineering isn't working: while dense housing may attract people who don't want to drive, studies show it doesn't significantly change the travel habits of people who prefer to drive. Planners also argue we need to limit low-density development to protect open space. But 95 percent of the U.S. is rural open space. Given that unaffordable housing and congestion hit low-income families the hardest, government efforts to protect open space are a tragic misplacement of priorities that simply exacerbate housing, mobility, and other serious problems. Urban planners admit they want to emulate European cities with their higher densities and intensive transit service. Yet they are following models that have already failed. European governments emphasized high-density housing in the 1950s and 1960s. By 1970, western Europeans were sick of government housing and began demanding more privately owned single-family homes. Three out of four homes built in Sweden in the late 1960s were multifamily apartments; by 1980, three out of four were single-family. After the fall of the soviet empire, eastern Europeans also began abandoning the high-density housing projects communist planners had built for them. Recent high-density developments in Portland look nearly identical to housing projects built in eastern Germany in the 1960s. The difference is that (despite high vacancy rates) Portland is subsidizing more of them while Germany can't tear them down fast enough to keep up with people leaving for single-family homes. Europeans' apparent fondness for transit is also an illusion. Though Europe spends roughly $100 billion a year subsidizing urban transit and intercity rail, they are losing market share to the automobile. Americans drive for 82 percent of all their travel; Europeans for 78 percent. If dense housing and huge transit subsidies don't work in Europe, how can they work here? Urban planners have given us surpluses of condos and apartments, shortages of single-family homes; surpluses of open space, shortages of developable land; surpluses of public transit, and shortages of highway capacity. These are only some of the surpluses and shortages government planners have foisted upon an unsuspecting public. It is time to say the emperor of planning has no clothes. Congress and the states should repeal planning laws. Instead of long-range planning, cities and counties should solve problems using markets and user fees.

### Government Can’t Solve (2/3)

#### The private sector solves better than the government – data proves, politicization of transit, low priority

Ronald D. Utt, Ph.D., is Herbert and Joyce Morgan Senior Research Fellow in the Thomas A. Roe Institute for Economic Policy Studies at The Heritage Foundation, “Using Market Processes to Reform Government Transportation Programs: Report No. 1,” The Heritage Foundation, June 6, 2011, http://www.heritage.org/research/reports/2011/06/using-market-processes-to-reform-government-transportation-programs-report-no-1, accessed 6-16-2012.

Today the nation’s transportation system is a mix of public and private responsibilities. In general, the private sector builds, owns, and operates the rolling stock (cars, trucks, and trains) and airplanes, while the public sector builds, owns, and operates the infrastructure—notably, nearly all of the roads as well as nearly all airports and the air traffic control system. The only exceptions to this are the privately owned freight railroads, which own and operate both their rolling stock and infrastructure (and consistently runs at a profit and pays taxes), and the federally controlled Amtrak, which owns its rolling stock and some of its infrastructure (and consistently runs at a loss and absorbs taxes). What sparked Roger’s quote is that the transportation system has never suffered from a shortage of privately provided rolling stock and airplanes.[1] By contrast, the transportation system—notably in the leading commercial centers—does suffer from a shortage and deterioration of infrastructure that has worsened over the past two decades. Noting that the number of licensed drivers (up 71 percent), registered vehicles (up 99 percent) miles driven (up 148 percent) have all soared since 1970, former chairman of the House Transportation and Infrastructure Committee Don Young (R–AK) lamented during the last reauthorization process that “during the same period new road miles have increased by only 6 percent.”[2] The Basic Problem with Public Ownership Among the several reasons the public sector has difficulty in adequately responding to modern transportation needs, there are two chief ones. 1. Politicization of Transportation. Created in 1956 to build the interstate highway system, the federal highway program achieved that goal in the early 1980s and was expected to go out of business and turn responsibility back to the states. But the huge annual inflow of revenues from the federal fuel tax tempted Congress to expand the program’s mission to justify its existence. Today, only about 65 percent of trust fund spending goes back to serve the motorists and truckers who fund the system, as lobbyists and stakeholders have succeed in expanding trust fund responsibilities to transit, truck parking lots, covered bridges, sidewalks, the National Forest Service, transit on Indian reservations, historic preservation, Appalachian and Mississippi Delta redevelopment, roadside beautification, bicycles, hiking paths, university research, earmarks, and commuter rail—to name just a few—plus a vast federal bureaucracy that costs more than $425 million to operate each year. Every one of these diversions reflects some passing fashion or lobbyist effort from the distant past that managed to achieve a perpetual claim on the trust fund. With the trust fund going insolvent in 2008 and now subsidized by general revenues at a time of yawning budget deficits, these many whimsical, costly, and unproductive diversions represent a worsening burden on the government and the nation’s economy. 2. Transportation Ranked Low on Budget Priorities. As part of the federal budget, transportation programs must—in practice and in theory—compete with other federal programs for available resources. Until 2008, highway and transit spending escaped this constraint by virtue of a dedicated funding source (federal fuel taxes) and a trust fund that protected these revenues from congressional and presidential predation. But after several years of spending more than it earned, the trust fund required its first ever infusion of general revenues in 2008, and many more infusions are predicted unless dedicated revenues are increased or spending is cut. Implications This mode of operation makes little sense from an economic perspective. Transportation services represent a vital commercial activity providing benefits to every American and every American business. Yet the amount of transportation service provided is based on overall budget priorities rather than the needs and desires of transportation users. Such a system is also independent of consumers’ willingness to “buy” more transportation services, since no market exists to accommodate an increase in demand. This results in more congestion and more infrastructure decay.

### Government Can’t Solve (3/3)

#### Government not key – government funded transit is losing money while a private system would save money and be more efficient

Wendell Cox , Principal of the Wendell Cox Consultancy in the St. Louis area, is a Visiting Fellow in the Thomas A. Roe Institute for Economic Policy Studies at The Heritage Foundation, and Ronald D. Utt, Ph.D., is Herbert and Joyce Morgan Senior Research Fellow in the Roe Institute, “Using Market Processes to Reform Government Transportation Programs, Report No. 2: Improving Transit with Competitive Contracting,” The Heritage Foundation, July 7, 2011, http://www.heritage.org/research/reports/2011/07/improving-transit-with-competitive-contracting, accessed 6-16-2012.

If public transportation is to remain viable, it must completely rethink the way it operates. Here are a few suggestions. Public Transit in the Red Typical is the Washington, D.C., area’s Metro system, which incurred operating expenses of just over $2 billion against operating revenues of $727 million, leading to a loss of nearly $1.3 billion in 2010, thereby necessitating a subsidy of a similar amount from taxpayers to stay in business. Metro’s escalating losses are due to costs that are growing twice as fast as revenues.[1] New York’s Metropolitan Transit Authority lost more than $4 billion in 2009, New Jersey Transit lost nearly $2 billion, and Chicago’s Regional Transit Authority lost more than $1 billion. Passenger fares for Portland’s oft-touted light-rail system cover barely one-third of operating costs. Getting Costs Under Control For decades, transit’s principal problem has been insufficient cost control rather than insufficient revenues. Over the past 25 years, transit’s operating costs have risen approximately $15 billion (on a passenger mile basis). If transit agencies had been able to keep costs within inflation—as most businesses do—transit would have been able to provide 40 percent more service in 2009. With government unable to provide more subsidies, a much better solution is for transit systems to use competitive contracting to reduce costs and improve the quality of service. Widely used in corporate America, the Department of Defense, and many transit systems here and abroad, competitive contracting defines the process whereby a business or a government entity solicits bids from qualified private-sector service providers to perform a specific service under contract for a defined fee. For example, Washington’s Metro could put various services out for bid, such as cleaning trains and stations, repair and maintenance of trains, the operation of an entire line, or even the whole system, as has occurred in some places. Indeed, all of the suburban transit systems in the Washington, D.C., area use competitive contracting, although most transit ridership in the region takes place on Metro. Importantly, the existing workforce and managers would be encouraged to bid on the contract in competition with private companies, encouraging them to use their skills and experience to seek efficiencies that were discouraged when they were protected from competition and acted as monopolists. As numerous studies of the extensive experience compiled by the Defense Department have revealed, savings over previous costs average 25–35 percent, and in many cases, the existing workforce wins the contract by restructuring its operation.

## Not Safe

### Wheel Malfunctions (1/1)

#### Wheel malfunctions lead to deaths, injuries, damaged infrastructure and can occur on any track

Joseph Vranich, has been involved in rail passenger issues for more than thirty-five years, was President/CEO of the High Speed Rail Association, and Wendell Cox, principal of Demographia, a St. Louis region-based public policy firm. He was appointed to three terms on the Los Angeles County Transportation Commission, “The California High Speed Rail Proposal: A Due Diligence Report.” September 1, 2008, http://reason.org/files/1b544eba6f1d5f9e8012a8c36676ea7e.pdf, accessed 6-14-2012.

The world’s most tragic high-speed rail disaster occurred on the Deutsche Bahn AG (German National Railway) on June 3, 1998 when the Inter City Express (ICE Train) derailed because of a wheel malfunction, which resulted in 101 fatalities and many injuries. Contributing to the severity of the accident was that the train derailed into supports for a highway overpass, which in turn collapsed onto the train and completely demolished several railroad coaches. The event occurred on mixed-use tracks which limited the train speed at that point to 124 mph (200 kph).229 However, the non-dedicated nature of the tracks was irrelevant to the accident. Such a wheel malfunction could have occurred on dedicated high-speed lines that constitute a portion of the train’s Munich– Hamburg route. The ICE Train is capable of a cruising speed 186 mph (300 kph), and had the wheel malfunction occurred at such a speed on a dedicated line the consequences could have been just as severe if not worse. In July 2008, the German railway pulled from service all ICE-3 trains, the newest model of the ICE Train, for precautionary safety checks. Inspectors carried out ultrasound tests after a defective axle caused one of the trains to derail in a station after possibly being damaged earlier on its high-speed run to Cologne.230 In short, component failures on high-speed trains can lead to accidents on dedicated high-speed lines or joint-use lines.

### Earthquakes (1/1)

#### Systems to safeguard high speed rail from natural disasters are limited

Joseph Vranich, has been involved in rail passenger issues for more than thirty-five years, was President/CEO of the High Speed Rail Association, and Wendell Cox, principal of Demographia, a St. Louis region-based public policy firm. He was appointed to three terms on the Los Angeles County Transportation Commission, “The California High Speed Rail Proposal: A Due Diligence Report.” September 1, 2008, http://reason.org/files/1b544eba6f1d5f9e8012a8c36676ea7e.pdf, accessed 6-14-2012.

Because of California’s seismic conditions, the safety of HSR during an earthquake is a consideration. The CHSRA states that a “failsafe” technology would be in place to stop the trains when an earthquake is detected.282 The Japanese have long used a system whereby sensors cut electricity to the trains when first tremor is detected, which is designed to ensure that the trains come to a halt. The system’s limitation came to light on October 24, 2004, during a 6.8 magnitude earthquake when a Bullet Train derailed in Nagoaka while traveling at 130 mph (210 kph). The train stopped after the driver applied emergency brakes. Experts said the sensors work best when the epicenter of an earthquake is some distance away. When the quake is right beneath the train, as it was in this case, the sensors cannot slow the train in time to stop potential damage. Remarkably, in this unprecedented accident, there were no injuries aboard the train.283 In light of the limitations of the automatic system, the Transport Ministry established a panel to study whether other measures were needed to safeguard Bullet Trains during earthquakes.284

### Highway Conflicts (1/1)

#### Lack of regulations result in vehicle intrusions when combining high speed rail with highway systems

Donna R. Maurillo, “High-Speed Rail in the US: Will It Be a More Attractive Terror Target than Inter-city Rail?,” MINETA Transportation Institute, April 25, 2011, http://transweb.sjsu.edu/mtiportal/education/alumni/capstones/terror-targets-high-speed-rail-vs-intercity-rail-Maurillo.pdf, accessed 6-15-2012.

Some particular challenges face HSR security in the United States, and a few will require new approaches to address them. For example, out of necessity, some HSR lines will share rights-of-way with highways, such as the route between Victorville CA and Las Vegas NV, which will follow Interstate 15. When the Florida project is finally underway, the first segment will use the highway median between Orlando and Tampa. When trains run at speeds in excess of 150 miles per hour so close to automobile traffic, it becomes especially critical to secure the HSR rights-of-way to prevent vehicle intrusion. Currently, the Federal Railroad Authority has no standards for integrating a rail line with a highway system, and already it has caused problems with a commuter rail system that shares a highway right-of-way.

# A/T Environment Advantage

## Global Warming

### Transportation Sector not Key (1/1)

#### The transportation sector is already becoming more fuel efficient which is what their evidence really says is key – HSR will not solve

Randal O’Toole, senior fellow at CATO, “High-Speed Pork,” National Review Online, February 14, 2011, http://www.nationalreview.com/articles/259618/high-speed-pork-randal-otoole, accessed 6-16-2012.

Unlike the interstates, which were paid for exclusively out of gasoline taxes and other highway user fees, all of the capital costs and much of the operating costs of high-speed trains will be subsidized by taxpayers who will rarely ride the trains. This is the way it works in France and Japan, where — despite having population distributions much more conducive to rail travel — residents ride high-speed trains an average of less than 500 miles a year. Nor will high-speed rail offer any environmental benefits. The average intercity auto trip today uses less energy per passenger mile than the average Amtrak train. While it takes a lot of energy to move trains 150 miles per hour or more, autos are getting cleaner and more energy-efficient every year, so by 2025 the average car will be greener than the most efficient train. High-speed rail will do little more than drain our economy. It is foolish to ask taxpayers to spend hundreds of billions on trains that few can afford to use.

#### There are a slew of causes to CO2 emissions – stationary sources are number one

Dawn Walls-Thumma, “Leading Causes of Global Warming,” National Geographic, 2011, http://greenliving.nationalgeographic.com/leading-causes-global-warming-2177.html, accessed 6-16-2012.

Throughout history, Earth has gone through periodic cycles of warming and cooling. Since the beginning of the 20th century, Earth's temperature has risen 1.2 to 1.4 degrees Fahrenheit, and climate scientists predict that temperatures could rise as much as 7 degrees F by the end of the 21st century, according to the Environmental Protection Agency (see References 1). Scientists attribute most of this recent rise in global temperatures to increases in greenhouse gases, although they acknowledge the contributions of changes in land-use, as well as solar radiation and volcanic activity (see Resources 2). Fossil Fuel Combustion The widespread burning of fossil fuels began with the Industrial Revolution, when humankind discovered that the energy from burning fossil fuels like coal could power machinery that performed work faster and more efficiently than reliance on human labor. According to the IPCC, burning fossil fuels is the leading cause of the greenhouse gas emissions that cause climate change. (See References 2) Energy Generation According to the EPA, more than half of the greenhouse gas emissions produced in the United States come from stationary sources, such as power plants (see References 1). In 2007, 48 percent of U.S. power plants burned coal, and 22 percent used natural gas (see References 3, page 5). Both coal and gas are fossil fuels, and burning them to generate electricity produces greenhouse gas emissions that contribute to global climate change (see References 4 and 5). Transportation In 2008, an additional 27 percent of the greenhouse gas emissions produced in the United States came from burning gasoline to power cars, trucks and aircraft. Furthermore, greenhouse gas emissions from transportation are increasing more rapidly than emissions from other sources, according to the EPA. To trim greenhouse gas emissions from transportation, you can carpool and take public transportation, reduce the amount you drive and purchase fuel-efficient vehicles. (See References 6) Agriculture While burning fossil fuels accounts for large emissions of carbon dioxide, agriculture produces the most methane and nitrous oxide worldwide, according to the IPCC (see References 2). In the United States, agriculture accounted for about 7 percent of greenhouse gas emissions in 2005. Agricultural sources of greenhouse gases are myriad. Livestock grazing, waste management and digestive gases contribute half of the emissions produced by agriculture. Nitrogen fertilizers release nitrous oxide and comprise 35 percent of agricultural emissions. Burning fossil fuels to power farm equipment also produces greenhouse gas emissions but constitute only about 13 percent of all emissions. (See Resources 1, pages 1-3) The agriculture sector can employ rotational grazing, manage livestock feed and waste, and judiciously apply nitrogen fertilizers in order to reduce the greenhouse gas emissions resulting from agricultural practices (see Resources 1, page 6).

### HSR Doesn’t Solve Global Warming (1/2)

#### High speed rail emits CO2 because its power source comes from fossil fuels

Joseph Vranich, has been involved in rail passenger issues for more than thirty-five years, was President/CEO of the High Speed Rail Association, and Wendell Cox, principal of Demographia, a St. Louis region-based public policy firm. He was appointed to three terms on the Los Angeles County Transportation Commission, “The California High Speed Rail Proposal: A Due Diligence Report.” September 1, 2008, http://reason.org/files/1b544eba6f1d5f9e8012a8c36676ea7e.pdf, accessed 6-14-2012.

Each of the scenarios uses the CHSRA assumption in HSR attributable CO2 increases. According to CHSRA, 2,400,000 additional tons of CO2 would be emitted for electricity generation with HSR than without HSR.446 This may seem surprising, given the sometimes repeated claims that HSR does not emit CO2. HSR can be largely carbon neutral if all of the electric power used in its service area is generated by hydro-electric or nuclear facilities. That, however, is not the case in California, and the CHSRA estimates appear to account for that, noting that 58 percent of in-state electrical generation in 2005 came from natural gas and coal.447

#### Data indicates that high speed rail would be costly yet inconsequential in regards to CO2 reductions

Joseph Vranich, has been involved in rail passenger issues for more than thirty-five years, was President/CEO of the High Speed Rail Association, and Wendell Cox, principal of Demographia, a St. Louis region-based public policy firm. He was appointed to three terms on the Los Angeles County Transportation Commission, “The California High Speed Rail Proposal: A Due Diligence Report.” September 1, 2008, http://reason.org/files/1b544eba6f1d5f9e8012a8c36676ea7e.pdf, accessed 6-14-2012.

One of the most important selling points of HSR has been its claimed potential to reduce CO2 emissions. The data indicates otherwise. The cost per ton of CO2 removed by HSR is projected to be between 39 and 201 times the international IPCC ceiling of $50. HSR has been greatly oversold for its CO2 emission reduction potential. The reality is that HSR’s impact on CO2 would be inconsequential while being exorbitantly costly. California state law requires significant greenhouse gas (GHG) emission reductions. Highway and air transportation produce greenhouse gases, especially carbon dioxide (CO2), which is the principal greenhouse gas.420 HSR is routinely cited, both in California and internationally as a very effective way of reducing CO2 emissions. In one document, CHSRA refers to HSR as “earth friendly” and claims that it will reduce CO2 emissions from highways and air transportation by 12.4 billion pounds (this is 5.7 million metric tons).421 A CHSRA presentation to a California Senate committee predicted that HSR would reduce CO2 emissions 8.7 million tons in 2030 and that this amount “meets almost 50 percent of AB 32 greenhouse gas reduction goal.”422 In fact, the recently emerging data from CHSRA shows the HSR CO2 emission impact to be slight (3.1 million tons) at best, and this analysis shows the cost of such reduction to be anything but a bargain.423 In short, CHSRA’s own data indicates that the CO2 emission reduction benefits of HSR have been exaggerated. Even the CHSRA’s corrected CO2 emission reduction projection of 3.1 million annual tons are above those derived from the California Air Resources Board of 2.5 million tons and those estimated in this report, at between 0.6 and 1.8 million tons (described below under “Analysis of Emissions Reduction Scenarios”). International (IPCC) Ceiling While there is wide agreement that CO2 emissions must be reduced, there is also concern that efforts to reduce CO2 emissions must be cost effective. Overly expensive CO2 reduction strategies have the potential to reduce economic growth, increase unemployment and increase poverty levels. 108 Reason Founda tion Thus, to merely quantify a reduction of CO2 from a particular strategy is not the end of the analysis, it is only the beginning. The fundamental questions relate to how much in the context of overall emissions would HSR reduce emissions and, even more importantly, at what cost. Any strategy for reducing CO2 emissions needs to be subjected to a cost test. As is indicated below, no such test was applied by the CHSRA, which in light of California’s world policy leadership in CO2 emission reduction seems unusual.

### HSR Doesn’t Solve Global Warming (2/2)

#### High speed rail will not sufficiently reduce greenhouse gas emissions – other emissions will still exist and data proves

Joseph Vranich, has been involved in rail passenger issues for more than thirty-five years, was President/CEO of the High Speed Rail Association, and Wendell Cox, principal of Demographia, a St. Louis region-based public policy firm. He was appointed to three terms on the Los Angeles County Transportation Commission, “The California High Speed Rail Proposal: A Due Diligence Report.” September 1, 2008, http://reason.org/files/1b544eba6f1d5f9e8012a8c36676ea7e.pdf, accessed 6-14-2012.

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 CHSRA’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, CHSRA’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, CHSRA should cease making any statements about CO2 or other air quality impacts.

### HSR Increases CO2 (1/3)

#### High speed rail is empirically proven to not reduce CO2 emissions and in fact emits more CO2 than other trains

John Whitelegg, research leader at the Stockholm Environment Institute, York University, “On the wrong track: Why high-speed trains are not such a green alternative,” The Guardian, April 28, 2009, http://www.guardian.co.uk/environment/2009/apr/29/high-speed-rail-travel-europe-uk, accessed 6-15-2012.

The HSR plan is a large and expensive sledgehammer to crack a modestly sized nut. We could stimulate the economy by building 1,000 miles of HSR, but the sums would not stack up in terms of how many jobs this would create per £100,000 spent. If we really want to create jobs in all local economies, rather than drain them away along a very fast railway line, we could insulate 20m homes; make every house a mini-power station to generate and export its own electricity; sort out extremely poor quality commuter railway lines around all our cities; improve inter-regional rail links; and build 10,000 kms of segregated bike paths to connect every school, hospital, employment site and public building to every residential area. These projects would deliver real jobs on a large scale in every city region and local authority, but do not have the high-speed sexiness of new railway lines. HSR is promoted as something that can sort out nasty carbon-producing aircraft on domestic routes. It has done this on the Paris-Lyon and Madrid-Seville lines, but this ability to trash a single air route should not be interpreted as something than can dent the growth of air travel. Germany has one of the largest HSR systems in the world, yet has seen an explosion in internal air travel. HSR does not reduce the fuel consumption of domestic aviation or reduce annual carbon emissions from aircraft. And it produces twice as much CO2 per passenger kilometre as a non-high speed train. If we are serious about reducing our carbon emissions by 80% by 2050, we should not move towards higher speed, more carbon intensive forms of transport and a policy of increasing the mass of travel.

### HSR Increases CO2 (2/3)

#### Construction of high speed rail emits so many GHG emissions that it would be costly if even possible to reduce CO2 in the long run

Joseph Vranich, has been involved in rail passenger issues for more than thirty-five years, was President/CEO of the High Speed Rail Association, and Wendell Cox, principal of Demographia, a St. Louis region-based public policy firm. He was appointed to three terms on the Los Angeles County Transportation Commission, “The California High Speed Rail Proposal: A Due Diligence Report.” September 1, 2008, http://reason.org/files/1b544eba6f1d5f9e8012a8c36676ea7e.pdf, accessed 6-14-2012.

Construction of the HSR system will also produce GHG emissions. Planning documents indicate that the energy required to build the system would be “paid back” by 3.8 years of energy savings.453 However, the documents do not convert that analysis to GHG emissions, which again seems unusual given California’s policy leadership in GHG policy. While there is no analysis of construction-related GHG emissions, if the “payback” period on GHG emissions were equal to the energy payback period, then from 3.8 years (under the CHSRA 2030 Base Ridership Projection) to more than 11 years (under the Due Diligence 2030 Base Ridership Projection) could be required. This would materially reduce the already modest GHG reduction impacts of HSR and increase the cost per GHG ton removed to substantially above its already enormously expensive level.

### HSR Increases CO2 (3/3)

#### High speed rail is powered by fossil fuels and produce more carbon than conventional rail and car travel

George Monbiot, noted journalist on environmental issues, “What's not to like about high-speed rail? The case simply hasn't been made,” The Guardian, May 17, 2012, http://www.guardian.co.uk/commentisfree/2010/may/17/high-speed-rail-policy-carbon-emissions, accessed 6-14-2012.

What's not to like is that the case has not been made. The background data on which these claims are based isn't just sparse – in some cases it's non-existent. Where it does exist, it starkly contradicts other government figures. I wanted to be convinced, perhaps I still could be. But the Department for Transport's argument currently consists of several thousand pages of wishful thinking. The last government's command paper contains a graph showing carbon figures for air, road, conventional rail and high-speed trains. This creates the impression that high-speed rail produces less than half as much carbon per passenger kilometre as conventional railways, and just a fraction of the emissions from cars. How did it produce these results? By selecting Eurostar – and apparently only the French section – as its example of a high-speed train. French electricity is mostly produced by nuclear power, so high-speed trains there create much smaller emissions than ours would cause. It also appears to have ignored the carbon costs of construction. Compare this to a paper commissioned by the Department for Transport in 2007. When construction is taken into account, high-speed rail journeys from London to Manchester will produce 60% more carbon than conventional rail and 35% more carbon than car journeys. They will generate only 25% less carbon than plane travel (all references are on my website).

#### Studies on HSR’s impact on the environment use flawed statistics – HSR would *increase* emissions

George Monbiot, noted journalist on environmental issues, “What's not to like about high-speed rail? The case simply hasn't been made,” The Guardian, May 17, 2012, http://www.guardian.co.uk/commentisfree/2010/may/17/high-speed-rail-policy-carbon-emissions, accessed 6-14-2012.

Throughout the recent government documents there's an assumption that the new railway will be sustainable because it will draw people out of planes. But buried on page 162 of the report on which the department has based its case, published in March 2010, are the figures that derail this assumption. Of the passengers expected to use the new railway, 57% would otherwise have travelled by conventional train, 27% wouldn't have travelled at all, 8% would have gone by car and 8% by air. In other words, 92% of its customers are expected to switch to high-speed rail from less polluting alternatives. Yet the same report contains a table (page 179) suggesting that the savings from flights not taken outweigh the entire carbon costs of the railway. It provides neither source nor justification. The 2007 report shows that even if everyone flying between London and Manchester switched to the train, the savings wouldn't compensate for the extra emissions a new line would cause. "There is no potential carbon benefit in building a new line on the London to Manchester route over the 60-year appraisal period." A switch from plane to train could even increase emissions. Unless the landing slots at present used by domestic flights are withdrawn by the government, they are likely to be used instead for international flights. The government has no plan for reducing total airport space.

## Biodiversity

### HSR Hurts Environment (1/5)

#### The construction and operation of high speed rail cause a multitude of environmental problems

Cameron et. al. (Dick Cameron, Senior Conservation Planner, The Nature Conservancy of California, Mike White, ecologist with expertise in conservation planning, environmental regulations, and ecosystem assessment, management, and restoration, Jerre Ann Stallcup, M.A. Conservation Biologist, and Kristeen Penrod, Southcoast Wildlands Project, “Potential ecological impacts analysis of California high speed rail,” John Muir Institute of the Environment, UC Davis, August 29, 2005, accssed 6-16-2012.)

The analysis utilized GIS and was based on high speed rail alignment data, including information on structure (bridge, tunnel, trench) and spatial alignment relative to right of ways (in, adjacent, new). For each geographical region and subset, proposed options were analyzed in terms of their ecological impacts. Data layers used were: public land and private conservation land (2003), wetlands and vernal pools, The Nature Conservancy portfolio conservation areas, the California Natural Diversity Database, potential wilderness, and potential wildlife linkages. Impacts from construction as well as operations and maintenance were included. Direct impacts include removal of vegetation, wildlife mortality, water pollution, noise, light, and vibration. Indirect impacts include changes in surface and groundwater flow, wildlife behavior and movement, potential changes to disturbance, invasion of exotics, growth inducement, and potential benefits associated with restoration opportunities. An example of the analysis results is displayed, detailing the scope and specificity of the report output. The results indicate that special areas for concern are: habitat fragmentation for wide-ranging species in the southern Sierra Nevada and Transverse Ranges; Orange and San Diego counties in terms of threatened and endangered species, lagoons, interior stream habitats, and wildlife linkages; wetlands and vernal pools in the Central Valley; and the Western Mojave Desert in terms of growth inducement and impacts to groundwater.

### HSR Hurts Environment (2/5)

#### Trains threaten the existence of certain species due to collisions, introduction of harmful substances, and fragmentation

Edgar A. van der Grift, a wildlife ecologist, engaged in research on biodiversity and habitat fragmentation, “The Impacts of Railroads on Wildlife,” Wildlands CPR, November 10, 2001, http://www.wildlandscpr.org/biblio-notes/impacts-railroads-wildlife, accessed 6-16-2012.

The impacts of railroads on wildlife and wildlife habitats are not much different from those caused by roads. Loss of habitat, mortality due to collisions, barrier effect and reduction in habitat quality are the main impacts of habitat fragmentation by railroads. This may cause reduced population viability or threaten a speciesø survival. On a local scale, trains affect wildlife habitats through the introduction of exotic plant species (e.g. seeds), emission of toxic contaminants like heavy metals, or management (e.g. herbicides). Death between the tracks Wildlife mortality due to collisions with trains can be significant. Mammals and birds seem particularly vulnerable, as shown by studies in Spain, The Netherlands and Czech Republic (Havl¯n 1986; SCV 1996; Van der Grift 1999; Brandjes & Smit 1999; Van der Grift & Graafland, unpublished data). Differences in mortality between species groups are well portrayed by a survey of animal carcasses at the railroad Madrid-Sevilla (Spain). Along this railroad the annual kill was estimated at 36.5 kills/km (SCV 1996). About 57% of the casualties were birds, 40% were mammals while only 3% were reptiles and amphibians. European and North American studies indicate that many wildlife species are victims of collisions with trains. Mammalian victims range from small rodents to large ungulates and carnivores (Van Tighem 1981; Child & Stuart 1987; Havl¯n 1987; Belant 1995; Gibeau & Heuer 1996; Groot Bruinderink & Hazebroek 1996; Paquet & Callaghan 1996; SCV 1996; Wells 1996; Serrouya 1997; Gibeau & Herrero 1998; see also review Van der Grift 1999). Size of avian victims varies (Havl¯n 1987; SCV 1996; Brandjes & Smit 1999), though owls and birds of prey seem especially vulnerable (Spencer 1965; L"sekrug 1982). Snakes (SCV 1996; Wieman et al. 2000) and amphibians, mainly toads and frogs, also are victims Barandun 1991). Railroad fatalities can have a severe impact on animal populations. Moose fatalities in the lower Susitna Valley (Alaska) revealed an astonishing annual mortality of 5.5/km (Modafferi 1991). Train-moose collisions were largely responsible for population reduction in this area. In some years the reduction was as high as 35% (Becker & Grauvogel 1991). Studies in Canada and Norway indicate similar losses (Child et al. 1991; Muzzi & Bisset 1990; Anderson et al. 1991; Jaren et al. 1991; Groot Bruinderink & Hazebroek 1996). Small numbers of victims also may cause negative impacts on population levels and have severe implications for population survival probability if a species is endangered, has a large home range, low population density or low reproduction rate. Between 1994 and 1996 13 black bears were killed along 15 kilometer of railroad in Glacier National Park in British Columbia, Canada (Wells 1996; Munro 1997), while four more bear-kills occurred on a nearby highway. Although black bear population numbers are not well known, the railroad (and highway) is a îpopulation sink." Similar conclusions can be drawn in the Bow Valley of Banff National Park. Between 1985 and 1995 an average of 9-11% of the black bear population was killed by trains and cars each year (Gibeau & Heuer 1996). In 1996 one animal was hit by a train and four by cars, while the total population in the valley was estimated at no more than 20 adults (Serrouya 1997).

### HSR Hurts Environment (3/5)

#### **High speed rail will alter migratory patterns, harm animals, and increase SO2**

Adonai, writer and researcher, “California high-speed rail: environmental friend or foe,” The Watchers, March 25, 2012, http://thewatchers.adorraeli.com/2012/03/25/california-high-speed-rail-environmental-friend-or-foe/, accessed 6-16-2012.

Currently the project is facing what is bound to be a massive blow to California’s ecosystem if left unchecked. Plans are underway to proceed with the railway despite major impacts on ecosystems that will be subjected to the railways passage. Migratory patterns of species will be disrupted by the continuous fencing placed along a huge portion of the railway, as well as the number of species that will be in danger of critical impact without further environmental research. While the amount of greenhouse gases is lowered it can create more SO2 emissions. Additionally the project cannot produce the promised environmental benefits without running trains at full capacity consistently. In fact at this time to provide the proposed environmental benefits that the HSR promises, California cannot provide the required amount of energy solely through renewable sources. The most immediate threats to the project’s success have come in the form of skyrocketing costs; now a projected $99 billion, a dwindling budget and a shrinking private investment sector. The FRA in awarding money to the CA HSR has placed deadlines to have contracts signed environmental impact report statements (EIR/S) turned in, and construction started or risk losing funding. The Central Valley has been given a deadline, September 2012 to have met these requirements or possibly lose $3.3 billion in federal funding. Right now cash strapped California may be tempted to meet deadlines at all costs, but to do so puts the integrity of the project at risk environmentally and economically. With the proper planning and preparation the CA HSR will lead the way into the future of Americas transportation infrastructure, but left at the mercy of deadlines which are counterproductive to the end goal, the future looks grim at best. California is faced with a rapidly expanding population and the need for a clean fast form of transportation connecting the major metropolitan communities is here, but not at the expense of critically impacting delicate ecosystems.

### HSR Hurts Environment (4/5)

#### High speed rail’s construction and operation harm endangered animals in a variety of ways

G. Mendel Stewart, manager of San Francisco Bay National Wildlife Refuge, “Comments regarding the Draft Bay Area to Central Valley High-Speed Train (HST) Program EIRJEIS,” U.S. Department of Interior, October 22, 2007, http://www.cahighspeedrail.ca.gov/assets/0/152/198/73dda02a-2fd1-450a-ab47-d97ebb1d19df.pdf, accessed 6-16-2012.

The Don Edwards San Francisco Bay National Wildlife Refùge (Refuge) appreciates the opportunity to comment on the High Speed Rail Project. As a property owner adjacent to the proposed rail corridor, we are extremely concerned about the wildlife and habitat impacts associated with this project. We are also concerned with effects to listed species from the proposed project. Based on a review of the draft environmental document, we would like to relay the initial comments below concerning the proposed transbay crossing in South San Francisco Bay and the Oakland to San Jose corridor that passes through the Refuge. . Noise, vibration and human disturbance to wildlife during construction and operation. The proposed rail lines mentioned above are located in wetland habitat that supports the endangered California clapper rail, salt marsh harvest mouse, California tiger salamander, vernal pool tadpole shrimp, as well as numerous migratory birds. These species rely on this environment for breeding, nesting, foraging and roosting. We are concerned that construction and operation activities may displace these species temporarily and/or permanently from this area. In addition, construction activities should not occur during sensitive breeding and nesting periods for these species. Habitat disturbance. We are concerned about the project’s anticipated siting of new track and access needs to existing rail line during the construction and operation phase. It is unclear in the EIR/EIS how wetlands and other habitats on the Refuge will be adversely impacted. Any activities, including construction access, must be assessed for its compatibility with the overall purposes of the Refuge. In order to meet its congressionally mandated requirements, it is unlikely that the Refuge would allow work to be conducted on its property adjacent to the rail line. We are also concerned with the potential for impact to species listed as threatened or endangered since the rail line is surrounded on both sides by habitat containing protected species. Both train service and maintenance activities have the potential of violating the protection of these species. . Facilitating a predator corridor. The current rail infrastructure facilitates the movement of predators including foxes and feral cats that prey upon the California clapper rail and the salt marsh harvest mouse. We are concerned that adding to the existing infrastructure will continue to exacerbate predator access to sensitive wildlife habitats on the Refuge. We recommend the proposed HST Program include a measure in their alternatives that would reduce predator movement along the rail line. . Coordination with the Dumbarton Rail Corridor Project and freight service. We are aware that the Dumbarton Rail Project is looking into alternatives for siting a San Francisco Bay rail line crossing at or near the same location. We recommend that you coordinate the project’s plan with the Dumbarton Rail Authority to assess the cumulative effect of both rail service activities across the South Bay. In addition, it is unclear if the corridor will be used for freight service and if so, what will be the added impact of that rail service? . Derailment potential on the Refuge. •We are concerned about the possibility of derailment on the Refuge and what measures will be taken to reduce this risk. In addition, the operation plan should also include a response plan specific to the Refuge habitat in the event of a derailment.

### HSR Hurts Environment (5/5)

#### High speed rail plans are too focused about speed to worry about the ecosystems its construction ruins – UK proves

Colin Ricketts, writer, “Forest charity slams high speed rail plans,” Earth Times, March 23, 2011, http://www.earthtimes.org/conservation/forest-charity-slams-high-speed-rail-plans/566/, accessed 6-16-2012.

The Woodland Trust has slammed the UK Government's planned high speed rail plans saying that they will destroy 21 ancient woodlands and has launched a petition against the proposed HS2 rail line linking London to the north of England. The Trust also accuses the Government of misleading the public by understating the loss of ancient habitats: the public consultation document records loss of land at only 19 ancient woods, while the trust maintains 21 will be lost and a further 27 sites affected. Ancient woodland in the UK is defined as land that has been wooded since 1600 or earlier. Nikki Williams, head of campaigning at the Woodland Trust, said: ''We actively support moves towards green transport but it needs to be efficient, of benefit to a majority of the public and should not sacrifice the environment's rarest habitats.'' ''The HS2 consultation document however seems to focus more on how to get people from A to B as quickly as possible, while great chunks of detail on environmental impact are missing. The Trust therefore is not convinced HS2 is a green scheme, and we need to question whether the UK even has the kind of topography to accommodate high speed trains without substantial damage to our natural environment.'' ''There is no escaping the fact that the proposed route completely destroys or irrevocably damages 21 ancient woods. Even the Government admits to the likely loss of 19 of them. Ancient woodland is the UK's equivalent of the rainforest and we only have a tiny fraction of it left - 2% of our woodland cover. Once destroyed, it cannot be recreated with new trees, so it is literally irreplaceable. The unique conditions which exist here - the result of centuries of undisturbed soils and tree cover - makes this the UK's richest wildlife habitat for rare and threatened species. Regardless of any mitigation strategy put forward by Government on HS2, no compensation can exist for this loss.''

#### High speed rail will threaten endangered species and affect water

Ralph Vartabedian, “Environmental objections in path of bullet train,” LA Times, June 11, 2012, http://articles.latimes.com/2012/jun/11/local/la-me-bullet-green-20120611/2, accessed 6-16-2012.

"What about the people who will live next to this temporary activity for the next five years?" said Sandra Celedon-Castro of Fresno, a member of the environmental justice advisory board to the air district. "Once your health is affected, how are you going to fix that? Once you have asthma, that is not temporary. We have always been overlooked." The rail authority and its partners at the Federal Railroad Administration also need clearance from the U.S. Fish and Wildlife Service, which is preparing a biological opinion on the project's effects on endangered and threatened species, said Daniel Russell, a deputy assistant field supervisor at the service. So far, the service has identified six animal and five plant species listed as endangered or threatened that would be affected by the Merced-to-Fresno section of the rail project. It has yet to determine whether the project would harm those species or could jeopardize their survival or have effects that could be mitigated, Russell said. The animals include the San Joaquin kit fox, the California tiger salamander, two types of fairy shrimp, a tadpole shrimp and the valley elderberry longhorn beetle. Kathryn Phillips, director of the Sierra Club California, said a lot of public and private money has been invested into preserving those species. "The kit fox is pretty charismatic," she said. By choosing to go up the eastern side of the Central Valley rather than the drier western side, the rail authority will cross up to 100 bodies of water controlled by the Army Corps of Engineers.

### Fragmentation (1/3)

#### Rail construction causes habitat fragmentation – the most important global threat to biodiversity

Infra Eco Network Europe, a network of experts working with various aspects of transportation, infrastructure and ecology, “International Conference on Habitat Fragmentation due to Transportation Infrastucture and Presentation of COST action 341 products,” 2003, http://www.kora.ch/malme/05\_library/5\_1\_publications/I\_and\_J/IENE\_2003\_Plenary\_session\_presentation\_of\_the\_cost\_action\_341.pdf, accessed 6-16-2012.

Abstract: One of the radical changes to the landscape of the past centuries has been the creation and enormous extension of infrastructure networks. Towards the end of the 20th century, the expansion of trunk rail and road networks slowed, but did not cease. At the same time, an ever denser network of forestry roads and other minor roads, tracks and trails extended into the last wildernesses of Europe. Canals, pipelines, electricity and telephone networks added their impact to an exponential fragmentation of natural areas, while urbanisation rapidly increased the builtover area. Researchers, nature organisations and authorities have expressed their concern over the impacts of fragmentation and studies have shown the risks caused by shrinking, ever farther separated habitats and the increasing influence of edges and boundaries. But only during the past decade has there been sustained, broad scale international collaboration to review knowledge about the transport infrastructure's impact on fragmentation and especially about the means to mitigate it. Habitat fragmentation, the splitting of natural habitats and ecosystems into smaller and more isolated patches, is recognised as one of the most important global threats to the conservation of biological diversity. A short overview of the mechanisms, processes and effects on nature will be presented. This threat was the reason for the Infra Eco Network Europe (IENE) to start in 1998 an action in the framework of COST1: the action COST 341. This paper presents some background information of this action which is the base for the major findings of the European Review and the solutions recommended in the Handbook.

#### Fragmentation caused by high speed rail devastates biodiversity

Infra Eco Network Europe, a network of experts working with various aspects of transportation, infrastructure and ecology, “International Conference on Habitat Fragmentation due to Transportation Infrastucture and Presentation of COST action 341 products,” 2003, http://www.kora.ch/malme/05\_library/5\_1\_publications/I\_and\_J/IENE\_2003\_Plenary\_session\_presentation\_of\_the\_cost\_action\_341.pdf, accessed 6-16-2012.

The changes in land use, and reduction in area of natural and semi-natural habitats, with their resulting fragmentation are threatening Europe’s biodiversity. Many plant and animal species, and their genetic diversity, are currently declining or threatened with extinction. Transportation infrastructure is often considered to be a principal cause of fragmentation today. In the future 20,500 km of roads and 23,000 km conventional and high-speed railway lines are being planned in Europe. Roads and railroads are fragmenting much of the remaining natural habitat in Europe, degrading through their barrier and disturbance effects the carrying capacity of ecosystems and imposing a high mortality rate on wildlife populations.

### Fragmentation (2/3)

#### Railroads are barriers between animal populations both directly and indirectly leading to less breeding and animal kinship

Edgar A. van der Grift, a wildlife ecologist, engaged in research on biodiversity and habitat fragmentation, “The Impacts of Railroads on Wildlife,” Wildlands CPR, November 10, 2001, http://www.wildlandscpr.org/biblio-notes/impacts-railroads-wildlife, accessed 6-16-2012.

Railroads are barriers that may decrease survival probability of wildlife populations when the animals canøt cross them. In Arizona, fenced railroads fragmented pronghorn habitat, isolated populations and prevented seasonal migration (Ockenfels et al. 1997). High-speed railroads in Europe usually have high fences, which if unmitigated, fragment habitat. In Spain red deer were observed trying to jump over a fence along a high-speed railroad. No wildlife crossings had been created when the fences were constructed, and non-wildlife passages across the railroad were not used by wild ungulates (Rodr¯guez et al. 1996). Toads and salamanders are often not able to climb over railroad tracks (Igelmann 1994) and usually follow them for hundreds of meters to find an opening (Barandun 1991; Wolf 1993), making them more susceptible to predation and bad weather conditions. This can result in a reduced genetic kinship between amphibian populations on both sides of the railroad (Reh & Seitz 1990; Vos 1999). Railroads may also form linear barriers to arthropods such as carabid beetles and lycosid spiders (Mader et al. 1990). A more indirect barrier effect occurs when animals are unwilling to cross or avoid the railroad, even if wildlife passages are present. This avoidance is often related to disturbance factors (e.g. noise, light, and pollution) caused by railroad traffic, and other human activities (e.g. construction, maintenance, and management of the right-of-ways). Flight reactions to trains have been recorded for moose, deer, bears, caribou and hedgehogs (Muzzi & Bisset 1990; Bontadina et al. 1993). While roe deer and red fox seem to cross railroads easily, observations suggest that badgers tend to see the railway line as a border of its home range (M¡ri & Stammbach 1991) as do hedgehogs (Huijser et al. 2000).

### Fragmentation (3/3)

#### High speed rail construction leads to sediment problems and habitat fragmentation which devastates endangered species

U.S. Fish and Wildlife Service, “Summary of the Hine’s Emerald Dragonfly Critical Habitat Designation,” March 6, 2012, http://www.fws.gov/midwest/endangered/insects/hed/hedfchsummary.html, accessed 6-16-2012.

The U.S. Fish and Wildlife Service is designating critical habitat for the Hine’s emerald dragonfly (Somatochlora hineana) in Illinois, Michigan, and Wisconsin. The Hine’s emerald dragonfly is listed as endangered under the Endangered Species Act of 1973, as amended. Background Natural History Adult Hine’s emerald dragonflies have bright emerald-green eyes and metallic green bodies with yellow stripes on the sides. The body is about 2½ inches long with a wingspan of 3½ inches. Hine’s emerald dragonflies use a variety of habitats - most are wetland systems. The dragonfly breeds in marshes and sedge meadows that are underlain by dolomite bedrock (magnesia-rich sedimentary rock resembling limestone) and fed by calcareous (calcium carbonate, calcium or limestone) groundwater seeps. Eggs are laid in shallow water and immature dragonflies, called larvae, hatch the following spring. Larvae are aquatic, living in rivulets and seepage areas within wetland systems for 3 to 5 years, eating smaller insects and shedding their skin many times. Larvae then crawl out of the water and shed their skin a final time, emerging as flying adults. Adults can live at least 14 days and may live 4 to 6 weeks. During that time they use wetlands as well as a mixture of adjacent uplands. Threats Actions that threaten the continued existence of the Hine’s emerald dragonfly are those that destroy, degrade, alter, and fragment habitat. Direct loss of habitat from urban development, new landfills, and new pipelines decreases the area of suitable habitat and can fragment existing dragonfly populations. Quarrying can also destroy Hine’s habitat because this species is closely associated with surface dolomite deposits which have commercial value. Contamination from landfills, transportation, agriculture, and habitat-altering chemical applications may degrade habitat. The species’ long aquatic larval stage (3 to 5 years) makes it vulnerable to ground and surface water contamination. Natural succession and encroachment of invasive species negatively impacts the species habitat. Natural succession may result from releases of nutrients and road salt into surface waters or connected groundwater, and invasive species may be introduced through human activities in the habitat. Increased deposition of sediment harms areas within wetlands where Hine’s emerald dragonflies breed. Activities that may cause excessive sedimentation include livestock grazing, road construction, stream channel alteration, timber harvest, all terrain vehicle use, horseback riding, feral pig grazing, rail lines and other disturbances to the watershed and floodplain. Alteration of water quantity and quality in wetland systems can impact Hine’s breeding habitat. Activities that change water quality and quantity include groundwater extraction; alteration of surface and subsurface areas within groundwater recharge areas; and release of chemicals, biological pollutants, or heated effluents into the surface water or groundwater recharge area. Hine’s emerald dragonfly breeding habitat can also be harmed by alteration of channels in wetland systems. Channels within wetlands could be harmed or altered by all terrain vehicle use, horseback riding, feral pigs, channelization, beaver dams, impoundment, road and bridge construction, mining, and loss of emergent vegetation. These activities may lead to changes in water flow velocity, temperature, and quantity. Activities that fragment habitat are harmful because they affect the ability of adults to forage or disperse to new areas. This, in turn, may result in reduced fitness and genetic exchange within populations as well as direct mortality of individuals. Activities that fragment habitat include road construction, destruction or fill of wetlands, and high-speed railroad and vehicular traffic.

## Pollution

### HSR Increase Pollution (1/3)

#### The construction of high speed rail damages the environment and is very difficult to reverse

Tim Sheehan, reporter with experience covering local government and environmental issues, “High-speed rail construction will give Valley's bad air a big bump before reductions take hold,” Fresno Bee, March 26, 2012, http://www.fresnobee.com/2012/05/26/2851875/high-speed-rail-secret-construction.html#storylink=omni\_popular, accessed 6-16-2012.

Backers of California's proposed high-speed rail system frequently tout the long-term air-quality benefits of getting people out of cars and planes and onto electric-powered trains. But any reductions in air pollution won't start for at least a decade, when the trains would start carrying passengers between Merced and the Los Angeles Basin. Meanwhile, building the system in the San Joaquin Valley is expected to pump tons of dust, greenhouse gases and other pollutants into the air. International experts warn it could take years for the benefits of train ridership to make up for the harm caused during construction. The California High-Speed Rail Authority expects to pay millions of dollars to make up for construction emissions in the Valley. "Building in an emissions-free manner is not possible, of course," said Lisa Marie Burcar, a spokeswoman for the rail authority. "But offsetting those emissions to result in the same outcome is." In its environmental impact report for the Merced-to-Fresno section -- one of the first portions of the statewide train system planned to be built -- the rail authority allows that "construction ... has the potential to cause temporary and significant localized air quality impacts" on the Valley's air between 2013 and 2022. Work would include demolition, land grading, earthmoving, pouring concrete, building stations and laying tracks. All that work, and the equipment used to do it, are expected to produce reactive organic compounds and nitrogen oxides -- two chemicals that mix in the atmosphere to create ozone -- as well as dust and carbon dioxide and other greenhouse gases. The pollution anticipated from high-speed rail construction would be a small fraction of emissions already generated in the region. But in the Valley, already struggling to meet state and federal air-quality standards, any extra pollution is a major worry, said David Barber, of the San Joaquin Valley Air Pollution Control District. Construction pollution not only has "dire consequences" for healthy air, but it threatens the San Joaquin Valley's ability to comply with federal mandates under the federal Clean Air Act, Barber told rail-authority board members this month in Fresno. The Valley faces several deadlines over the next 11 years to meet standards for ozone and fine particles, called PM-2.5. PM-2.5 is made up of dust and other particles that are 2.5 microns in size or smaller. A human hair, by comparison, is between 50 and 70 microns in thickness. Barber said failure to reach those standards will have "dramatic and potentially devastating consequences in the form of federal sanctions on the Valley." Penalties could include severe limits on industrial development and the loss of billions of dollars in federal highway funds.

### HSR Increase Pollution (2/3)

#### High speed rail will be even worse for air pollution that current forms of transportation like air travel

Baruch Feigenbaum, transportation policy analyst, “California High-Speed Rail Will Increase Pollution,” Reason Foundation, June 14, 2012, http://reason.org/blog/show/california-high-speed-rail-will-inc, accessed 6-16-2012.

The latest development in the California high-speed rail disaster concerns pollution. University of California-Berkeley professor Arpad Hovath explains that construction of the train will produce 10 million metric tons of Carbon Dioxide per year. Electricity for the California trains will come from coal fired power plants leading to more pollution. In order to negate this pollution, the train would need extremely high ridership in the Central Valley something that would be nearly impossible to achieve. California HSR will likely be more polluting than air travel.

#### High speed rail is not necessary and counterproductive for improving the environment

David Levinson, RP Braun/CTS Chair in Transportation Engineering and Director of Nexus, University of Minnesota, “California's High Speed Rail: Some Facts,” NEXUS, No Date Given, http://nexus.umn.edu/Projects/HSR/HSR-factsheet.html, accessed 6-16-2012.

A study of BART (Lave 1976) estimated that more energy was used to build the system than will ever be saved by it. Environment Other modes are steadily getting cleaner, for instance fuel cell powered vehicles will emit only water and carbon dioxide. Any benefits from HSR depend on unproven forecasts. The energy for HSR must come from somewhere, if electric than probably coal or nuclear, both of which have some problems. Planning and Urban Design BART has not been particularly successful at attracting development outside of downtown San Francisco, why would HSR? It is likely that HSR will promote sprawl into the Central Valley.Advocates of rail (traditionally urban subways and light rail) claim that new rail will result in the redevelopment of "good neighborhoods" around the stations. This is true to a limited extent (e.g. in San Francisco and selected other stations, such as Rockridge), but not universally. Rail tends to promote dispersion ... park and ride lots promote what those advocates would consider "bad neighborhoods", i.e. auto oriented suburban neighborhoods, enabling people to live very far from the central city (Dublin, Pittsburg etc) and still work downtown. We can hypothesize that HSR will promote even more "bad neighborhoods", particularly in the central valley, as people choose to live 100 miles from the city and use HSR to commute into San Francisco and Silicon Valley.Downtowns as a share of regional jobs have been declining steadily for 50 years. Hence any system focused on downtown is serving yesterday's travel demand pattern rather than tomorrow's (unless it can reverse the trend, which is rather like tilting at windmills). There is little evidence that new rail starts do much to reverse the trend.

### HSR Increase Pollution (3/3)

#### Even if high speed rail reduces pollution in the long run, the immediate effects are so polluting that they must be avoided

Ralph Vartabedian, “Environmental objections in path of bullet train,” LA Times, June 11, 2012, http://articles.latimes.com/2012/jun/11/local/la-me-bullet-green-20120611, accessed 6-16-2012.

The California bullet train is promoted as an important environmental investment for the future, but over the next decade the heavy construction project would potentially harm air quality, aquatic life and endangered species across the Central Valley. Eleven endangered species, including the San Joaquin kit fox, would be affected, according to federal biologists. Massive emissions from diesel-powered heavy equipment could foul the already filthy air. Dozens of rivers, canals and wetlands fed from the rugged peaks of the Sierra Nevada would be crossed, creating other knotty issues. A wide array of state and federal agencies is examining those effects and, over the next several months, will issue scientific findings that could affect the cost and schedule of construction. Beyond the regulators, environmental lawsuits brought by the powerful California agriculture industry are threatening to further delay work. The state rail authority is trying to push ahead with an urgent plan to start construction of a 130-mile segment from Madera to Bakersfield as early as December, arguing that any delays could put more than $2 billion of federal funding at risk. Even if the Legislature appropriates the state's share of money this summer, the construction schedule will depend on friendly and quick decisions by often tough regulators. "We make an independent decision here," said Paul Maniccia, a biologist for the Army Corps of Engineers. "We don't willy-nilly say that's OK." The $68-billion bullet train would be the largest infrastructure project in the nation, projected to carry at least 20 million passengers annually with clean electrical power. If it draws motorists off the highway, it would reduce vehicle emissions. But those long-term benefits have to be weighed against heavy immediate effects. Among the most difficult issues will be air quality, which is regulated across eight counties by the San Joaquin Valley Air Pollution Control District. The district worries that the construction project would exacerbate already problematic levels of nitrogen oxides, particulates and volatile compounds. The district already bears an annual $29-million federal fine for violating the Clean Air Act, a burden levied on businesses and motorists, who must pay higher annual vehicle fees. Without its approval, the California High-Speed Rail Authority cannot sink a shovel into the ground, said Samir Sheikh, the district's director of strategies and incentives. "We have an air quality problem that cannot tolerate an increase in emissions," he said.

#### The immediate environmental damage due to high speed rail leads to deaths and billions of dollars being spent

Ralph Vartabedian, “Environmental objections in path of bullet train,” LA Times, June 11, 2012, http://articles.latimes.com/2012/jun/11/local/la-me-bullet-green-20120611, accessed 6-16-2012.

Children in the valley carry inhalers with their books and lunches. On bad air days, emergency rooms see a significant increase in residents having asthma attacks, according to district figures. Hospitalizations, lost work days and premature deaths, among other effects, cost $5.7 billion annually, a 2008 Cal State Fullerton study found. The district is taking the position that the rail construction should make no net increase in emissions. If the cleanest diesel equipment still adds to emissions, then the district wants "financial mitigation" so it can reduce pollution from other sources, Sheikh said. Even the increased population that the rail project would generate would need to be mitigated, he said. A potential hold up is that the district wants to know the exact quantity of emissions that the construction project would create. Up to 50 miles of elevated structures or viaducts just from Merced to Bakersfield would be built, hundreds of millions of pounds of gravel would be hauled from quarries, and thousands of towers would be erected to hold up electrical lines — much of it done with diesel-powered equipment. "There will be a lot of heavy equipment producing a lot of emissions over a number of years," Sheikh said. The rail authority has downplayed such concerns. It has vowed in many forums to work closely with regulatory agencies, protect the public health and comply with all environmental laws. "We do not expect any significant adverse impacts onchildren's healthto occur as a result of construction," Karin Lilienbecker, an environmental consultant with CH2M Hill, told the rail authority board at a public hearing in early May. Such positions are not winning the authority a warm political welcome by the air district's governing board, whose 15 members include 11 registered Republicans from around the Central Valley. "These high-speed rail people just blow through everything," said Harold Hanson, a board member and Bakersfield city councilman. "I am not sure they know how much dust and pollution they will cause. Their environmental homework has been shoddy."

# A/T Econ Advantage

## General

### HSR Bad for Economy (1/4)

#### High speed rail is unnecessary and will lead to massive debt and operating subsidies

Christopher Lane, editorial writer, specializing in economic policy, financial issues and trade, “California’s high-speed rail to nowhere,” Washington Post, January 9, 2012, http://www.washingtonpost.com/opinions/californias-high-speed-rail-to-nowhere/2012/01/09/gIQAZQDamP\_story.html?wpisrc=nl\_opinions, accessed 6-16-2012.

But enough of the inevitable pork-barrel politics. On the merits, high-speed rail would be a questionable investment even if California could afford to build it. LaHood and other boosters marvel at bullet trains in Europe and Japan, insisting simplistically that we need them, too. But the sprawling, decentralized cities of the United States do not make convenient destinations for train travelers. International experience shows that high-speed rail entails expensive debt service and large operating subsidies. This would likely be the case here as well, since, for better or worse, rail must compete with well-established air and car options. Business travel is one ostensible purpose of bullet trains in California, but increasingly people meet via video conference. For these and other reasons, high-speed rail in the United States would lower carbon emissions and reduce traffic far less cost-effectively than would alternative solutions. It’s especially odd for a Democratic president and governor to saddle California with the cost of bullet trains when the state is facing chronic deficits, tax increases and social spending cuts. Maybe this is why polls show that a majority of Californians have turned against the project. It’s still not too late to hit the brakes.

### HSR Bad for Economy (2/4)

#### History proves that HSR would drain the government of money and take funds from more important and effective programs

Robert Samuelson, columnist for The Washington Post, where he has written about business and economic issues, “High Speed Rail a Fast Track to Waste,” Real Clear Markets, February 14, 2011, http://www.realclearmarkets.com/articles/2011/02/14/high\_speed\_rail\_a\_fast\_track\_to\_waste\_98869.html, accessed 6-16-2012.

Vice President Biden, an avowed friend of good government, is giving it a bad name. With great fanfare, he went to Philadelphia last week to announce that the Obama administration proposes spending $53 billion over six years to construct a "national high-speed rail system." Translation: The administration would pay states $53 billion to build rail networks that would then lose money - lots - thereby aggravating the budget squeezes of the states or federal government, depending on which covered the deficits. There's 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. Worse, the rail proposal casts doubt on the administration's commitment to reducing huge budget deficits. The president's 2012 budget is due Monday. How can it subdue deficits if it keeps proposing big spending programs? High-speed rail would definitely be big. Transportation 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. Precisely the opposite. Rail subsidies would threaten funding for more pressing public needs: schools, police, defense. How can we know this? History, for starters. Passenger rail service inspires wishful thinking. In 1970, when Congress created Amtrak to preserve intercity passenger trains, the idea was that the system would become profitable and self-sustaining after an initial infusion of federal money. This never happened. Amtrak has swallowed $35 billion in subsidies, and they're increasing by more than $1 billion annually. Despite the subsidies, Amtrak does not provide low-cost transportation. Longtime critic Randal O'Toole of the Cato Institute recently planned a trip from Washington to New York. Noting that fares on Amtrak's high-speed Acela start at $139 one-way, he decided to take a private bus service. The roundtrip fare: $21.50. Nor does Amtrak do much to relieve congestion, cut oil use, reduce pollution or eliminate greenhouse gases. Its traffic volumes are simply too small to matter. In 2010, Amtrak carried 29.1 million passengers for the entire year. That's about about 4 percent of annual air travel (2010 estimate: 725 million passengers). It's also roughly a quarter of daily automobile commuters (124 million in 2008). Measured by passenger-miles traveled, Amtrak represents one-tenth of 1 percent of the national total.

### HSR Bad for Economy (3/4)

#### High speed rail is considered an “immense financial risk” and no credible source of funding exists

Christopher Lane, editorial writer, specializing in economic policy, financial issues and trade, “California’s high-speed rail to nowhere,” Washington Post, January 9, 2012, http://www.washingtonpost.com/opinions/californias-high-speed-rail-to-nowhere/2012/01/09/gIQAZQDamP\_story.html?wpisrc=nl\_opinions, accessed 6-16-2012.

The latest authoritative warning came last week from the California High-Speed Rail Peer Review Group, which called the program “an immense financial risk” for the state and refused to recommend that the state legislature sell $2.7 billion in bonds to start a 130-mile initial stretch of the system. Thanks to federal policy, if California does not start work on the rail line by Sept. 30, it will lose an additional $3.3 billion in federal money — possibly dooming the system. But the Catch-22 is that, if California does start building without securing future funding, it could end up with a $6 billion track to nowhere. As the Peer Review Group (PRG) explains, that’s because, for economic-stimulus reasons, Washington insisted that California build the initial stretch between two outposts in the lightly populated San Joaquin Valley. “[M]oving ahead . . . without credible sources of adequate funding, without a definitive business model, without a strategy to maximize the independent utility and value to the State, and without the appropriate management resources, represents an immense financial risk on the part of the State of California,” concluded the PRG, an independent body established by the 2008 referendum that authorized $9 billion in high-speed rail bonds.

#### Implementation delays mean no immediate economic stimulus and infrastructure worsens the economy

Veronique de Rugy, senior research fellow at the Mercatus Center at George Mason University, and Matthew Mitchell, a senior research fellow at the Mercatus Center at George Mason University, “WOULD MORE INFRASTRUCTURE SPENDING STIMULATE THE ECONOMY?,” MERCATUS, September 2011, http://mercatus.org/sites/default/files/publication/infrastructure\_deRugy\_WP\_9-12-11.pdf, accessed 6-16-2012.

The problems with infrastructure stimulus: There are unique problems with infrastructure stimulus that tend to diminish its chances of success. Chief among these are long implementation delays. The Congressional Budget Office reports that: [F]or major infrastructure projects supported by the federal government, such as highway construction and activities of the Army Corps of Engineers, initial outlays usually total less than 25 percent of the funding provided in a given year. For large projects, the initial rate of spending can be significantly lower than 25 percent.17 Economists from the IMF studied the impact of implementation delays on the multiplier and found that, ―Implementation delays can postpone the intended economic stimulus and may even worsen the downturn in the short run.‖

### HSR Bad for Economy (4/4)

#### Infrastructure spending will not stimulate the economy – could make it worse

Veronique de Rugy, senior research fellow at the Mercatus Center at George Mason University, and Matthew Mitchell, a senior research fellow at the Mercatus Center at George Mason University, “WOULD MORE INFRASTRUCTURE SPENDING STIMULATE THE ECONOMY?,” MERCATUS, September 2011, http://mercatus.org/sites/default/files/publication/infrastructure\_deRugy\_WP\_9-12-11.pdf, accessed 6-16-2012.

Economists have long recognized the value of infrastructure. Roads, bridges, airports, canals, and other projects are the conduits through which goods are exchanged. In many circumstances, private firms can and should be allowed to provide this infrastructure. But in other cases, there may be a role for public provision at the local level.42 But whatever its merits, infrastructure spending is not likely to provide much of a stimulus. As a short-term measure, more deficit-financed infrastructure spending is a risky bet. At best, it is likely to be ineffective; at worst it will be counterproductive. One long-term impact of further stimulus is certain: it would leave the United States deeper in debt at time when we can ill afford it.

### Costs Will Increase (1/2)

#### Costs are 44.7% higher for rail projects than anticipated – planning fallacy

Veronique de Rugy, senior research fellow at the Mercatus Center at George Mason University, and Matthew Mitchell, a senior research fellow at the Mercatus Center at George Mason University, “WOULD MORE INFRASTRUCTURE SPENDING STIMULATE THE ECONOMY?,” MERCATUS, September 2011, http://mercatus.org/sites/default/files/publication/infrastructure\_deRugy\_WP\_9-12-11.pdf, accessed 6-16-2012.

Cost overruns are the rule rather than the exception: The most comprehensive study of cost overruns examines 20 nations spanning five continents. The authors find that nine out of 10 public works projects come in over budget.30 Cost overruns dramatically increase infrastructure spending: Overruns routinely range from 50 to 100 percent of the original estimate.31 For rail, the average cost is 44.7 percent greater than the estimated cost at the time the decision is made. For bridges and tunnels, the equivalent figure is 33.8 percent, and for roads 20.4 percent.32 On average, U.S. cost-overruns reached $55 billion per year.33 Even if they lead to localized job growth, these investments are usually inefficient uses of public resources. Inaccurate estimates of demand plague infrastructure projects: A study of 208 projects in 14 nations on five continents shows that 9 out of 10 rail projects overestimate the actual traffic.34 Moreover, 84 percent of rail-passenger forecasts are wrong by more than 20 percent. Thus, for rail, passenger traffic average 51.4 percent less than estimated traffic.35 This means that there is a systematic tendency to overestimate rail revenues. For roads, actual vehicle traffic is on average 9.5 percent higher than forecast traffic and 50 percent of road traffic forecasts are wrong by more than 20 percent.36 In this case, there is a systematic tendency to underestimate the financial and congestion costs of roads. Survival of the un-fittest: Studies have shown that project promoters routinely ignore, hide, or otherwise leave out important project costs and risks to make total costs appear lower.37 Researchers refer to this as the ―planning fallacy‖ or the ―optimism bias.‖ Scholars have also found that it can be politically rewarding to lie about the costs and benefits of a project. The data show that the political process is more likely to give funding to managers who underestimate the costs and overestimate the benefits. In other words, it is not the best projects that get implemented but the ones that look the best on paper.38 A rapid increase in stimulus spending makes things worse: There is an inherent tradeoff between speed and efficiency. Policy makers need time to weigh the merits of a project, structure requests for proposals, administer a fair bidding process, select the best firms, competently build the project, and impartially evaluate the results. Quite understandably, economists have found that when funds are spent quickly, they are not spent wisely.39 In October 2010, President Obama conceded that, in fact, ―There‘s no such thing as shovel-ready projects.‖40

### Costs Will Increase (2/2)

#### Costs increase as high speed rail progresses leading to more spending and public disapproval

Joseph Vranich, has been involved in rail passenger issues for more than thirty-five years, was President/CEO of the High Speed Rail Association, and Wendell Cox, principal of Demographia, a St. Louis region-based public policy firm. He was appointed to three terms on the Los Angeles County Transportation Commission, “The California High Speed Rail Proposal: A Due Diligence Report.” September 1, 2008, http://reason.org/files/1b544eba6f1d5f9e8012a8c36676ea7e.pdf, accessed 6-14-2012.

Florida was the first state to embark on a program to build HSR with the 1984 passage of the High Speed Rail Act. In addition to creating an Authority to plan and oversee the project, the state established a franchise certification process designed to interest the private sector in helping to underwrite a Miami–Orlando–Tampa HSR project. In 1986, state planners and potential system developers stated that the new HSR line would attract significant numbers of travelers from automobiles and airplanes. Predictions were that the line could be built at a cost ranging from $2 billion to $4.5 billion, depending on the number of stations, and be in service within nine years.56 Projected construction costs continued to increase, and by 1990 the state required the franchise holder, the Florida High Speed Rail Corporation (FHSRC), to submit a new financing proposal. One trade publication described it as follows: FHSRC’s new financing plan included a request for state bonding authority of $5.35 billion ($214 million annually for 25 years), together with imposition of a 10 percent tax on high speed rail tickets; a $2 surcharge on automobile license tags, and a 2.5 cents per gallon increase in the motor fuel tax. FHSRC also asked that the Florida legislature authorize “available monies” to eliminate existing at-grade crossings on the proposed system. . . . FHSRC’s proposal did not find an enthusiastic audience.57 Public displeasure intensified in 1996 when five consortia submitted proposals in a new franchise process that was designed around the state’s new—and very controversial— commitment to a $70million-a-year subsidy.58 The state selected the Florida Overland Express consortium (FOX) to build the system, based in part on their plan to begin operating the entire line by 2006. At the same time, state officials balked at FOX’s bid request for subsidies of $95 million annually from the state—$25 million more than planned.59 Meanwhile, dissatisfaction by environmentalists grew over FOX’s plan to use alignments near water conservation areas, which were inconsistent with plans to prohibit development and protect coastal water supplies.60 Promoters pushed a 2000 state constitutional amendment requiring the state to build HSR, which the voters approved. However, the project ran into significant opposition as issues arose regarding the project’s cost, optimistic ridership estimates, adverse environmental impacts and the degree of highway and airport congestion relief that could reasonably be expected. Three years later, the state legislature was compelled to address growing concerns about costs and debated prohibiting the use of sales-taxes or tax exemptions for developers to help fund the system.61 Public concerns mounted that the state was to be exposed to inordinate financial risk and another measure was placed on the ballot in 2004 to repeal the state HSR constitutional 18 Reason Foundat ion amendment. The voters approved the measure by a 2-to-1 margin, effectively terminating the Florida HSR project.62

### Not Profitable (1/3)

#### Global estimates of HSR profitability cannot be applied to the United States and costs always skyrocket

Joseph Vranich, has been involved in rail passenger issues for more than thirty-five years, was President/CEO of the High Speed Rail Association, and Wendell Cox, principal of Demographia, a St. Louis region-based public policy firm. He was appointed to three terms on the Los Angeles County Transportation Commission, “The California High Speed Rail Proposal: A Due Diligence Report.” September 1, 2008, http://reason.org/files/1b544eba6f1d5f9e8012a8c36676ea7e.pdf, accessed 6-14-2012.

As in the case of CHSRA, HSR proponents claim that systems overseas are profitable. However, it is not clear that the world’s HSR systems have typically covered their operating and capital costs without subsidies. 14 Reason Foundat ion France. The TGV system is a sensible adaptation to a nation where Paris is a major transport hub as a destination and for connecting passengers. The most recent financial reports show that overall the French national rail operator, SNCF earned a profit.42 However, this is a far more complex issue. 􀂃 SNCF financial reports classify subsidies from national, regional and local governments as commercial revenues, rather than subsidies, as they would be classified in the United States. 􀂃 Separate financial data is not provided for the high-speed rail operations. Thus, any statements to the effect that TGV is profitable (which it may or may not be) have not been subjected to the normal accounting standards that apply to annual financial reporting. 􀂃 SNCF runs on the national rail system owned by the Réseau Ferré de France (RFF) and pays fees for its usage.43 According to a report by the French parliament, RFF and SNCF together have a debt of more than 40 billion Euros, or approximately $55 billion.44 This is a significant amount for a nation with a population one-fifth that of the United States. The SNCF access fees paid to the RFF cover little more than infrastructure maintenance and provide virtually no contribution to debt service, capital costs or depreciation.45 Moreover, RFF receives annual subsidies from the French government of more than 10 billion Euros. It is possible that some of the annual subsidy is attributable to TGV. 􀂃 Construction of the newest line, the TGV-Est line, from Paris toward Strausbourg was subsidized to at least the extent of 75%.46 􀂃 Reports are that RFF will be substantially increasing track access charges to pay for expansion and maintenance of the French rail network. Any such increase could cause a deterioration in SNCF financial performance.47 Given the lack of transparency regarding railway debt, continuing subsidies to RFF and the apparent lack of any comprehensive analysis48 using generally accepted accounting principles, no definitive statement can be made about the profitability of high-speed rail in France. Japan. The story is similar in Japan. The Japan National Railway was privatized in the late 1980s and the new private companies assumed some of the heavy debt that had been accumulated. However, the public shouldered most of the debt, which amounted to 250 trillion yen at privatization and grew to 280 trillion after that. At current exchange rates, this is more than $250 billion.49 This is a substantial amount for a nation with a population 60 percent less than the United States. As in the case of France, in view of the huge debt and the apparent lack of any comprehensive analysis using generally accepted accounting principles, no definitive statement can be made about the profitability of high-speed rail in Japan.50

### Not Profitable (2/3)

#### High speed rail will produce no profits – low ridership and revenues, high capital costs and operating costs, inefficient

Joseph Vranich, has been involved in rail passenger issues for more than thirty-five years, was President/CEO of the High Speed Rail Association, and Wendell Cox, principal of Demographia, a St. Louis region-based public policy firm. He was appointed to three terms on the Los Angeles County Transportation Commission, “The California High Speed Rail Proposal: A Due Diligence Report.” September 1, 2008, http://reason.org/files/1b544eba6f1d5f9e8012a8c36676ea7e.pdf, accessed 6-14-2012.

As has been noted, there are serious questions about whether any HSR system in the world is profitable when all factors are considered. (See Part 3, International Experience.) However, CHSRA Executive Director Mehdi Morshed has indicated that the California HSR system would be profitable and has even predicted an annual profit of $1 billion.366 While Morshed provides no detailed data, such a result is doubtful under the most optimistic assumptions.367 CHSRA Chairman Quentin Kopp wrote that the HSR system would “operate at a profit (just like the European and Asian systems) without taxpayer subsidy.”368 Statements such as these are countered by transportation experts William L. Garrison and David M. Levinson who indicate that the claim of profitability for HSR systems “conveniently ignores the very high capital costs” and that “HSR has in all cases required government subsidy.”369 Indeed, to claim that HSR systems are not subsidized when much of their capital costs (and perhaps even operating costs) are paid for by government is akin to claiming a household budget produces a surplus without including the mortgage on the house. At the same time, this is in contrast to other forms of intercity passenger transportation. The airline system is virtually all supported by user revenues, rather than general subsidies.370 (See Part 5.) Intercity highways and freeways are virtually all paid for by user revenues as well, rather than general subsidies.371 Similarly, intercity buses are largely unsubsidized. Finally, there is virtually no likelihood that HSR system surpluses will be available to finance system completion or expansion, simply because HSR profits are likely to be miniscule or nonexistent. (See Part 9.)372 Thus, in addition to the likelihood that ridership and revenues will fall short, that capital costs will be higher, that operating costs will be higher, that anticipated operating speeds are not likely to be achieved, CHSRA lacks a viable financial plan. Moreover, there appears to be no short-term prospect that such funding will materialize, beyond the possible voter approval of the $9 billion bond issue.

### Not Profitable (3/3)

#### Fares will either be so high that no one rides HSR or so low that there is no profit

Joseph Vranich, has been involved in rail passenger issues for more than thirty-five years, was President/CEO of the High Speed Rail Association, and Wendell Cox, principal of Demographia, a St. Louis region-based public policy firm. He was appointed to three terms on the Los Angeles County Transportation Commission, “The California High Speed Rail Proposal: A Due Diligence Report.” September 1, 2008, http://reason.org/files/1b544eba6f1d5f9e8012a8c36676ea7e.pdf, accessed 6-14-2012.

Fare levels are an important factor in demand modeling. If lower fares are assumed, the resulting ridership projection will generally be higher. A review of commercial revenues indicates the likelihood that projected fares are far below levels on other high-speed rail systems. This is another factor that suggests that the ridership projections are high. For example, the projected San Francisco–Los Angeles unrestricted business class fare is proposed to be $70 in 2030.162 The California HSR will thus have fares below that of other major HSR systems. The highest fares (business class) are Tokyo–Osaka $135, Paris–Marseille $140 and New York–Washington $172.163 Each of these is a major market in which the travel times of HSR and airlines are comparable. Moreover, CHSRA data indicates 2030 commercial revenues to be the equivalent to $0.10 per passenger mile.164 It is always risky to make international cost comparisons, however these differences, on the order of three to one, suggest that CHSRA is relying on unrealistic fare assumptions. Compare that estimate with the following: 􀂃 Japan. The Bullet Trains on each of the three main Japanese HSR lines received the equivalent of between $0.31 and $0.33 in revenue per passenger mile in 2007.165 CALIFORNIA HIGH SPEED RAIL 37 􀂃 France: While commercial revenue for the world’s second largest high-speed rail system is unavailable, business class fares are higher in France than in Japan, indicating an even higher cost structure. Further, TGV fares could rise substantially above their current levels. It has been reported that the French national railway (SNCF) may be required to increase fares as much as 80 percent by 2015 to pay for track improvements maintenance and debt service.166 􀂃 Neither the Japanese nor the French system is saddled with the huge debt service payments that will be required of the California HSR system, making the low-fare revenue assumptions look even less achievable. 􀂃 The discrepancy between proposed CHSRA fare levels and those of Amtrak’s Acela are even more stark. It is estimated that in 2007, the fare revenue per passenger mile on Acela was approximately $0.75, excluding ancillary revenues.167 This is more than seven times the CHSRA’s projected revenue per passenger. The experience of such HSR operators leads to the conclusion that the proposed fares are unrealistically low (see Figure 5). It seems likely that the CHSRA will have to charge higher fares in its efforts to achieve profitability—or simply to cover higher-than-anticipated costs—which would result in lower ridership. The effect of the higher fares likely to be necessary would be that HSR in California will be a less potent price competitor in the marketplace than the CHSRA planners assert. This is another factor that makes it unlikely that the CHSRA’s ridership projections are realistic.

## Jobs

### No Jobs (1/3)

#### High speed rail won’t create jobs – not enough use and too expensive to be cost-effective

Sam Staley, Ph.D., is director of urban growth and land use policy for Reason Foundation, “Why High-Speed Rail Fails as a Jobs Program,” Reason, August 18, 2009, http://reason.com/archives/2009/08/18/why-high-speed-rail-fails-as-a, accessed 6-16-2012.

Passenger rail in the U.S. is a different story. Passenger rail currently carries a very small portion of city-to-city travel—the market targeted by high-speed rail—and it's likely to remain modest well into the future. In 2008, Amtrak carried 28.7 million passengers. By comparison, there were 687 million airline passengers in 2008, in part because air service provides frequent high-speed travel to geographically distant cities. Then there's our well-developed highway network that makes automobiles very competitive with rail for distances under 200 miles. In most cases, once travel and wait times to train stations are factored in, travelers will spend as much time in route on the train as they will in a car. Consider a trip from Los Angeles to San Francisco, or Chicago to St. Louis, for a typical high-speed train traveler. You'll likely have to drive to the train station and pay to park. Once arriving in downtown St. Louis or San Francisco, you will likely have to take a taxi or rent a car to get to your hotel or meeting place (which is likely to be outside the central business district). The reliable, diverse, and nimble transit system that many advocates envision surrounding high-speed rail stations simply doesn't exist in most cities today, limiting the appeal of trains. To compensate for these disadvantages, taxpayers will have to steeply subsidize train ticket prices for the business travelers and tourists that are most likely to use them. Ultimately, high-speed rail's impacts on American travel patterns and employment productivity are going to be negligible, and the actual job creation potential for high speed rail is much more modest than proponents admit. Take, for example, the Ohio Hub corridor linking Cincinnati, Cleveland, Columbus, and Toledo to regional destinations such as Chicago and Toronto. Ohio is one of the nation's largest state economies, employing 5.3 million people. As an old-line manufacturing state, Ohio has lost 300,000 jobs just in the past year. Needless to say, Ohioans will be attracted to the optimistic rhetoric of rail's job creation potential. Moreover, preliminary estimates by independent consultants suggest the Ohio Hub may actually cover its annual operating costs (although supporters are counting on the federal government covering 80 percent of capital costs of the $3.7 billion project). Yet, even with these federal subsidies the consultant reports suggest that a $2.3 billion investment in building the rail corridor would generate only 54,540 jobs over the projected nine-year construction phase. That works out to 2,635 jobs per year at a cost of $42,170 per job. Further analysis found 16,700 permanent jobs would be created by the system once the system was up and running, assuming optimistically that ridership reaches forecasted levels and fares are set to cover its operating costs. While that might seem like a lot of jobs, the effort will do little to stem the economic tide turning against Ohio and other states facing the headwinds of global competition and a rising services-based economy. For transportation investments to have a meaningful economic impact, they will need to cost-effectively improve America's ability to move goods, services, and people from one place to another. High-speed rail doesn't do that. It is an extremely costly way to achieve limited portions of these goals, and it inevitably fails as a broad-based solution to the country's transportation challenges. In the end, high-speed rail's contribution to the economic recovery and the nation's economic productivity is being oversold. Elected officials, from Rep. Cantor to President Obama, would do a far greater service to the public's understanding of the economy if they would focus on economic fundamentals, not glitzy boutique policy programs that will inevitably fail to meet grandiose expectations they have created for them.

### No Jobs (2/3)

#### HSR does not create jobs – those who receive HSR jobs are taken from their preexisting jobs

Veronique de Rugy, senior research fellow at the Mercatus Center at George Mason University, and Matthew Mitchell, a senior research fellow at the Mercatus Center at George Mason University, “WOULD MORE INFRASTRUCTURE SPENDING STIMULATE THE ECONOMY?,” MERCATUS, September 2011, http://mercatus.org/sites/default/files/publication/infrastructure\_deRugy\_WP\_9-12-11.pdf, accessed 6-16-2012.

There is no such thing as a “shovel ready” project: By nature, infrastructure spending fails to be timely. Even when the money is available, it can be months, if not years, before it is spent. This is because infrastructure projects involve planning, bidding, contracting, construction, and evaluation.19 According to the GAO, as of June 2011, 95 percent of the $45 billion in Department of Transportation infrastructure money had been appropriated, but only 62 percent ($28 billion) had actually been spent.20 Un-targeted: Effective targeting means that stimulus money should be spent in those areas that have been hardest hit by the recession. The goal is to make the most use of ―idle resources‖ (as Keynesian theory terms them). For instance, depressed areas like Detroit have a considerable number of unemployed resources (people, firms, equipment, etc.). So theoretically, government stimulus should be able to put these idle resources to work. A number of studies, however, have shown that stimulus funding tends not to go to those areas that have been hardest hit by a recession.21  Even targeted stimulus may fail: Many of the areas that were hardest hit by the recession are in decline because they have been producing goods and services that are not, and will never be, in great demand. Therefore, the overall value added by improving the roads and other infrastructure in these areas is likely to be lower than if the new infrastructure were located in growing areas that might have relatively low unemployment but do have great demand for more roads, schools, and other types of long-term infrastructure.22  Job poaching, not creating: Unemployment rates among specialists, such as those with the skills to build roads or schools, are often relatively low. Moreover, it is unlikely that an employee specialized in residential-area construction can easily update his or her skills to include building highways. As a result, we can expect that firms receiving stimulus funds will hire their workers away from other construction sites where they were employed rather than from the unemployment lines. This is what economists call ―crowding out.‖ Except that in this case, labor, not capital, is being crowded out. In fact, new data confirm that a plurality of workers hired with ARRA money were poached from other organizations rather than from the unemployment lines.23

### No Jobs (3/3)

#### The AFF’s job claims are misleading and based on flawed studies

CBS, “Report: California High-Speed Rail Unlikely To Create 1 Million Jobs,” December 22, 2011, http://sanfrancisco.cbslocal.com/2011/12/22/report-california-high-speed-rail-unlikely-to-create-1-million-jobs/, accessed 6-16-2012.

Backers of a plan to build a high-speed rail system from Sacramento to San Diego have inflated the number of jobs the project would generate by as many as 50 times, according to a published report. State leaders hoping to secure federal funding have repeatedly said the railroad would produce one million jobs. However, the San Jose Mercury News reported Wednesday that the railroad would create an average of 20,000 to 60,000 jobs during the 22 years it’s expected to be under construction. The discrepancy, according to the newspaper, came about because officials counted each year a construction worker remained employed on the project as a separate job. But counting one worker’s 10 years of employment as 10 separate jobs is not usually how job figures are arrived at for large public works projects, the newspaper said. “Job-years and jobs are like apples and Twinkies, they’re not even in the same food group,” said Elizabeth Alexis, co-founder of a rail watchdog group called Californians Advocating Responsible Rail Design. “It’s not accurate, and it’s misleading.” Officials also assumed that every construction job would generate enough economic activity to add two outside jobs. Gov. Jerry Brown’s jobs czar, Michael Rossi, told the Mercury News “there was no plan to mislead anyone by manipulating the numbers.”

#### High speed rails do not create jobs, they just displace private sector jobs

Joseph Coletti, Director of Health and Fiscal Policy Studies at the John Locke Foundation, “High-speed rail plan risks taxpayer dollars for little to no benefit,” John Locke Foundation, April 27, 2011, http://www.johnlocke.org/press\_releases/show/614, accessed 6-16-2012.

New trains would have minimal impact on highway traffic volume, Cox added. "The reduction in traffic along the Interstate 85 and I-40 corridor between Charlotte and Raleigh would be under 0.5 percent for the two new round-trip trains, removing one out of every 200 cars," he said. "This reduction would not be perceivable to drivers." Cox also rebuts arguments about environmental benefits. "The additional passenger trains would, in the longer run, emit more greenhouse gases than the automobiles removed from freeways and would increase fossil-fuel consumption." An intercity bus system would reduce greenhouse gas emissions and energy consumption 50 percent to 75 percent relative to new passenger trains, Cox said. The impact on jobs is negligible as well, according to the report. "The projected employment impact of expanding passenger train service excludes any analysis of the displacement of private-sector jobs that would take place as a result of the project," he said. "Government reports have shown the employment impacts of similar infrastructure spending to be minimal." There is a potential for a negative economic impact, as high-speed passenger rail service changes operations for the state-owned North Carolina Railroad, Cox reports. Norfolk Southern Railroad operates freight trains over the route now. "In the longer run, additional passenger train service could diminish NCRR's value and earnings, principally because high-speed passenger trains and freight trains have materially different operating characteristics." Each of these facts points to the same conclusion, Coletti said. "High-speed rail won't help with road congestion, won't help the environment, and won't boost the net number of jobs in the state," he said. "High-speed rail will put taxpayers on the hook for new obligations at a time when the state can't afford them. It's time to drop any and all government plans for high-speed rail."

## Manufacturing

### No Manufacturing Increase (1/1)

#### The best, high-paying jobs will go to European and Asian companies – jobs will go overseas along with manufacturing

Joan Lowy, Associated Press Writer, “High-speed rail has benefits, but won't be the job generator that Obama promised: The Spin Meter,” AP, February 1, 2010, http://www.cleveland.com/nation/index.ssf/2010/02/high-speed\_rail\_has\_benefits\_b.html, accessed 6-16-2012.

But the jobs to design and make the rail cars and engines, signaling and track for the fastest trains will mainly go abroad to the European and Asian companies because it will take time for the U.S. to develop its own domestic high-speed rail industry, rail experts said. There will be U.S. manufacturing and engineering jobs for slower trains often described as "higher speed" or "midspeed." Much of the domestic high-speed work, however, will be the kind of construction and earth-moving work typical of highway projects, they said. European and Asian high-speed trains average over 110 mph and some reach top speeds of around 220 mph. There is nothing equivalent in the United States. Indeed, most of the grants announced by the White House Thursday will go to rail projects that aren't in the same league as the fast trains being built elsewhere. For the U.S. to decide to build high-speed train systems using primarily U.S. companies, "would be like Bangladesh deciding they want to have a space program and only use technology they have developed and manufactured themselves," said Anthony Perl, chairman of the National Research Council's intercity rail panel. The technology gap between true high-speed trains and the slower trains in use in the United States is equivalent to the gap between the planes flown by World War I flying aces and today's jets, said Perl, an American who teaches transportation policy at Simon Fraser University in Vancouver, Canada. Some of the equipment purchased for high-speed rail like train cars might be manufactured abroad and the parts bolted together in assembly facilities in the U.S., he said. "There will be some jobs that come out of it, but unless people are prepared to double the cost and take at least twice as much time to ramp up the capacity to supply this high-speed technology in the U.S., it's not there," Perl said.

#### The U.S. is incapable of creating trains necessary for HSR – manufacturing will be shipped overseas

Joan Lowy, Associated Press Writer, “High-speed rail has benefits, but won't be the job generator that Obama promised: The Spin Meter,” AP, February 1, 2010, http://www.cleveland.com/nation/index.ssf/2010/02/high-speed\_rail\_has\_benefits\_b.html, accessed 6-16-2012.

President Barack Obama is pitching his $8 billion high-speed rail program to Americans as a jobs generator that will revitalize the domestic rail industry. But the full picture is more complicated. Building ultra-fast trains won't create the kind of high-tech, high-paying jobs Americans covet any time soon. Indeed, many of the projects receiving high-speed dollars through Obama's program aren't what most of the rest of the world calls "high speed." And those projects that are truly high speed will have to rely on overseas companies with the experience building, supplying and operating the sleek, modern trains of Europe and Asia — an expertise that the U.S. lacks, say rail experts. That wasn't the picture Obama painted in his State of the Union speech Wednesday night, when he touted $8 billion in new railroad grants funded by the federal economic stimulus law. He said they would "create jobs and help our nation move goods, services, and information," and in the next breath lambasted companies who "ship our jobs overseas" and called for slashing their tax breaks.

### Manufacturing Not Key to Economy (1/3)

#### Manufacturing is not key to the economy due to changes in the industry – unions are more important

Robert Reich, former U.S. secretary of labor, is professor of public policy at UC Berkeley, “Unions, not manufacturing, key to economic revival,” San Francisco Gate, February 26, 2012, http://www.sfgate.com/cgi-bin/article.cgi?f=/c/a/2012/02/25/INC81NADIH.DTL, accessed 6-16-2012.

Meanwhile, American consumers' pent-up demand for appliances, cars and trucks has created a small boomlet in American manufacturing - setting off a wave of hope and nostalgic patriotism perfectly captured in Clint Eastwood's Super Bowl "Halftime in America" spot. But American manufacturing won't be coming back. Although 404,000 manufacturing jobs have been added since January 2010, that still leaves 5.5 million fewer factory jobs today than in July 2000. The long-term trend is fewer and fewer factory jobs. After World War II, 1 in 3 Americans was employed in manufacturing; today it's 1 in 8. Even if we didn't have to compete with lower-wage workers overseas, we'd still have fewer factory jobs because the old assembly line has been replaced by numerically controlled machine tools and robotics. Manufacturing is going high-tech, and as a result its productivity has skyrocketed - meaning fewer jobs. Bringing back American manufacturing isn't the real challenge, anyway. It's creating good jobs for the majority of Americans who lack four-year college degrees. Manufacturing used to supply lots of these kinds of jobs, but that was because factory workers were represented by unions powerful enough to get high wages. That's no longer the case. Even the once-mighty United Auto Workers has been forced to accept pay packages for new hires at the Big Three of only $14 an hour - half what new hires got a decade ago, and about the same as most of America's service-sector workers. GM just announced record profit, but its new workers won't be getting much of a share. If there's a single reason the median wage has dropped dramatically for non-college workers over the past 3 1/2 decades, it's the decline of unions. In the 1950s, more than a third of American workers were represented by a union. Now, fewer than 7 percent of private-sector workers have a union behind them.

### Manufacturing Not Key to Economy (2/3)

#### Reducing the deficit is considerably more important than boosting manufacturing

Gary S. Becker, University Professor Department of Economics and Sociology Professor Graduate School of Business The University of Chicago, “Concern About The Decline in Manufacturing in the United States?,” Becker-Posner Blog, April 22, 2012, http://www.becker-posner-blog.com/2012/04/concern-about-the-decline-in-manufacturing-in-the-united-states-becker.html, accessed 6-16-2012.

President Obama, in his State of the Union address, advocated special tax breaks and support for the manufacturing sector. I do not see any more convincing case for subsidies to manufacturing than there was for the special treatment of agriculture during the long decline in farm employment. Most of the arguments made in support of privileges for manufacturing could be made for services and other sectors of the economy. For example, although certain manufacturing industries have had high rates of productivity advance, so too has mining, such as through the development of fracking techniques. The most important technological advance of the past several decades has been the computer and the Internet, for these gave birth to email, word processing, apps, online sales, and social networks like Facebook and Twitter. Instead of singling out manufacturing for special privileges, the government should get behind certain general policies. High on the list would be raising the rate of growth of the American economy, for this will tend to create jobs in most sectors of the economy. More government support may be justified for basic research in science and other areas that would also benefit all sectors, not just manufacturing. Local and state governments, along perhaps with the federal governments, could try to reduce the dismally high dropout rates from American high schools. Dropouts have trouble finding good jobs even in the best of times, and they suffer the most during recessions. Many other steps can be taken to help the American economy, especially by limiting the growth of entitlements and the federal budget. None of the steps to improve the economy involve favoring manufacturing employment and the manufacturing sector. The call by many for special treatment of manufacturing jobs is basically misguided.

### Manufacturing Not Key to Economy (3/3)

#### The U.S. is already the world’s largest manufacturer and government action on manufacturing leads to fewer jobs

Richard A. Posner, Judge, United States Seventh Circuit Court of Appeals Senior Lecturer, University of Chicago Law School, “Decline of U.S. Manufacturing—Posner,” Becker-Posner Blog, April 22, 2012, http://www.becker-posner-blog.com/2012/04/decline-of-us-manufacturingposner.html, accessed 6-16-2012.

There is a general anxiety about becoming dependent on foreign nations for products that are vital to our nation. That is a legitimate concern when one is talking about products that are essential for national security or economic welfare, such as military aircraft; and obviously our military production is heavily and justifiably paid for largely by the government, although some is paid for by foreign buyers. The foreign “products” that might be thought essential to our security and welfare are not manufactured goods at all, but commodities such as oil and rare earth metals. The United States is still the world’s largest manufacturing country, accounting for a fifth of total world industrial output. Becker points to the analogy of agriculture. Employment in agriculture has plummeted, leading to anxieties spurred by agricultural companies about the decline of the “family farm” and the loss of the imagined virtues of the independent farmer, to combat which agriculture continues to be heavily subsidized. The subsidies are widely recognized to be a pure social waste, and the same would be true of subsidizing manufacturing. Like manufacturing, American agriculture is thriving with its historically small labor force. The decline in agricultural employment is a product of technological advance, and likewise the decline in manufacturing employment. Subsidizing manufacturing will no more increase employment in manufacturing than subsidizing agriculture has prevented the precipitous decline of agricultural employment, for a manufacturing subsidy will be used to speed the automation of manufacturing tasks and so accelerate the decline of manufacturing employment--unless the subsidy is conditioned on increased employment, which would would mean diverting workers from more to less productive work. We would not be better off if 40 percent of the labor force were in farming rather than 2.5 percent, or if 28 percent of the labor force were in manufacturing rather than 9 percent. Some concern has been expressed that we need to boost manufacturing in order to reduce our trade imbalance, because many manufactured goods are exported. But a recent article in the New York Times (April 10) points out that the United States is the world’s largest exporter of services—and would be larger still if we took steps, such as loosening visa restrictions that impede international provisions of services and making the same efforts to pry open foreign markets to American services as we do to pry open foreign markets to American goods. The politicians know all these things. The push to promote manufacturing is political in origin and may (one hopes will) be abandoned after the election. Its political appeal is related partly to the fact that unions still have a foothold in manufacturing, and partly to the fact that America’s prowess in manufacturing (think of the vast output of munitions in World War II) is associated in the public mind with the epoch of greatest American world power. I have no objection to efforts to negotiate with foreign countries trade agreements that facilitate U.S. exports (they also of course facilitate imports—and that’s fine too). Such efforts are the centerpiece of the Administration’s program of stimulating employment in manufacturing. But the efforts should be extended to services. I can think of no rational basis for putting manufacturing ahead of services.

## Oil Shocks

### Does Not Solve Oil Shocks (1/4)

#### Transportation only helps the economy if it increases mobility – HSR doesn’t – no shift away from oil-consuming vehicles

Randal O’Toole, senior fellow at CATO, “High-Speed Pork,” National Review Online, February 14, 2011, http://www.nationalreview.com/articles/259618/high-speed-pork-randal-otoole, accessed 6-16-2012.

President Obama’s high-speed-rail proposal will, over the course of six years, pour $53 million of taxpayer money into a megaproject that produces little value for the vast majority of Americans. It uses the classic pork-barrel strategy of starting a program small and then expanding it after Congress, prodded by special-interest groups, is fully committed. Secretary of Transportation Ray LaHood admits Obama’s 25-year plan to extend high-speed train service to 80 percent of Americans will cost $500 billion, which means after six years, spending will have to increase to $24 billion a year. While this will please construction and engineering firms, the rest of us will get little other than the satisfaction of knowing our trains go as fast as those in France and China (though less than half as fast as planes). The real value of any new transportation technology comes from the new mobility it creates. For example, the average American travels 4,000 miles and ships 2,000 ton-miles of goods per year on interstate freeways, virtually none of which took place before the interstates were built. That new mobility helped people reach jobs and other opportunities and ship products that might never have existed without the interstates. In contrast, high-speed trains will produce almost no new mobility — in fact, they could suppress freight mobility, which is why the freight railroads are resisting government plans to use their tracks for high-speed passenger trains in North Carolina, Virginia, and Washington. The Florida Department of Transportation predicts 96 percent of the people riding its proposed Tampa-to-Orlando high-speed train would otherwise drive; only 4 percent will be new travelers. With 50 million people visiting Central Florida each year, high-speed rail will increase business by less than .25 percent. Similarly, the California High-Speed Rail Authority predicts 98 percent of the riders on its proposed San Francisco–to–Los Angeles high-speed trains would otherwise drive or fly. With only 2 percent new travel, the trains will create almost no new economic opportunities. Far from serving 80 percent of Americans, Obama’s trains will serve only about 8 percent. High-speed rail’s main market is downtown-to-downtown travel. But little more than 7 percent of Americans work in big-city downtowns, and fewer than 1 percent live there. Few aside from this fairly wealthy elite will regularly ride high-speed trains.

### Does Not Solve Oil Shocks (2/4)

#### Proponents’ projections of ridership are based on flawed studies

Joseph Vranich, has been involved in rail passenger issues for more than thirty-five years, was President/CEO of the High Speed Rail Association, and Wendell Cox, principal of Demographia, a St. Louis region-based public policy firm. He was appointed to three terms on the Los Angeles County Transportation Commission, “The California High Speed Rail Proposal: A Due Diligence Report.” September 1, 2008, http://reason.org/files/1b544eba6f1d5f9e8012a8c36676ea7e.pdf, accessed 6-14-2012.

The high speed rail service proposed by the CHSRA will not have the effects on ridership that it claims. The CHSRA has been increasing forecasted ridership over time and has issued a Base Projection of 65.5 million intercity riders and a High Projection of 96.5 million intercity riders for 2030. The CHSRA ridership projections are considerably higher than independent figures developed for comparable California systems in Federal Railroad Administration (FRA) and University of California Berkeley studies. Using generous assumptions this Due Diligence Report projects a 2030 base of 23.4 million intercity riders, 64% below the CHSRA’s base of 65.5 million intercity riders, and a 2030 high of 31.1 million intercity riders, nearly 60% below the CHSRA’s high of 96.5 million. In short, the CHSRA’s ridership projections are absurdly high. The CHSRA projects ridership intensity (passengermiles per route-mile) to be far above levels achieved on HSR systems in France, the balance of the European Union, and Japan (see Ridership Intensity figure). Each of these markets is considerably more favorable for HSR and it would thus be expected that California ridership intensity would be lower. Moreover, the CHSRA’s projected load factor (share of seats filled on average) is far higher than what is found on HSR systems elsewhere around the world (see California HSR Load Factors figure).The CHSRA’s ridership projections rely on extraordinarily low fares that are far below current levels on other HSR systems. For example, the projected San Francisco–Los Angeles unrestricted business class fare is proposed to be $70 in 2030 (2006$) while today’s business class fares Tokyo– Osaka are $135, Paris–Marseille $140 and New York–Washington $172. The CHSRA’s artificially low fares—unlikely to be achieved—could be a substantial element in driving the absurdly high ridership projections.

### Does Not Solve Oil Shocks (3/4)

#### High speed rail’s inefficiency coupled with legal barriers will make it an unattractive option for travelers

Joseph Vranich, has been involved in rail passenger issues for more than thirty-five years, was President/CEO of the High Speed Rail Association, and Wendell Cox, principal of Demographia, a St. Louis region-based public policy firm. He was appointed to three terms on the Los Angeles County Transportation Commission, “The California High Speed Rail Proposal: A Due Diligence Report.” September 1, 2008, http://reason.org/files/1b544eba6f1d5f9e8012a8c36676ea7e.pdf, accessed 6-14-2012.

Based upon international HSR experience, it appears that the CHSRA speed and travel time objectives cannot be met. As a result, HSR will be less attractive as an alternative to airline travel and is likely to attract fewer passengers than projected. Notably, the CHSRA’s anticipated average speeds are not being achieved anywhere in the world, including on the most advanced systems. Additionally, incomplete consideration has been given to California’s urban and terrain profiles where HSR trains must operate more slowly than circumstances allow in, for example, France. This study, by assuming realistic speeds, estimates that a non-stop San Francisco–Los Angeles trip would take 3 hours and 41 minutes—59 minutes longer than the statutory requirement of 2 hours, 42 minutes. In the future, the CHSRA’s travel times may be further lengthened by train weight and safety issues and also by political demands to add stops to the system. The proposed HSR system appears unlikely to provide travel time advantages for long-distance airline passengers. It is likely that HSR door-to-door travel times would be greater and there would be considerably less non-stop service than air service. Moreover, HSR would be unattractive to drivers in middle-distance automobile markets because little or no door-to-door time savings would be achieved and costly local connections would often be required (rental cars or taxicabs). Another convenience factor is that California urban areas lack the extensive local transit infrastructure that connects with HSR systems found in dense Asian and European urban areas. The HSR system will experience disadvantages and commercial challenges in competing with air and auto travel that have been understated in CHSRA documentation. No existing European or Asian HSR train capable of meeting the speed and capacity goals of the CHSRA system can legally be used in the United States. The CHSRA’s intention to share tracks with commuter and freight trains complicates designing a train to meet Federal Railroad Administration (FRA) safety and crashworthiness standards that are considered the toughest in the world. The necessary regulatory approvals of an overseas train are unlikely to be achieved without substantial changes in design and weight.

### Does Not Solve Oil Shocks (4/4)

#### It is empirically proven that rail ridership is never high

Joseph Vranich, has been involved in rail passenger issues for more than thirty-five years, was President/CEO of the High Speed Rail Association, and Wendell Cox, principal of Demographia, a St. Louis region-based public policy firm. He was appointed to three terms on the Los Angeles County Transportation Commission, “The California High Speed Rail Proposal: A Due Diligence Report.” September 1, 2008, http://reason.org/files/1b544eba6f1d5f9e8012a8c36676ea7e.pdf, accessed 6-14-2012.

Overestimation of intercity rail ridership has been true for decades in the United States. One example: On numerous occasions the Government Accountability Office (GAO) has questioned the traffic forecasts upon which Amtrak bases its revenue projections as being too optimistic. A 1976 GAO report noted Amtrak’s projection that the “number of passengers will increase from 17.3 million in fiscal year 1975 to 32.9 million in fiscal year 1980—a 90 percent increase.”117 The actual passenger count in 1980 was 21.2 million—35.6 percent off the estimate. Even in 2007 when Amtrak set an “all-time record,” the rail system carried 25.8 million passengers—nearly 10 million passengers lower than it was projected to reach nearly three decades ago.118 Unachieved projections have remained a hallmark at Amtrak from its inception in 1971 through today. The problem of over-estimating demand has also been noted by the California Senate Transportation and Housing Committee in a report on the HSR project. The report notes the demand projection inaccuracies in toll roads and further notes with respect to mega-projects that 26 Reason Foundat ion … there is a pattern of economic analyses and demand forecasts that are often overly optimistic … 119

#### Proponents of HSR inflate how many people will switch from car/plane to HSR \*\*Most of the AFF evidence is from

Joseph Vranich, has been involved in rail passenger issues for more than thirty-five years, was President/CEO of the High Speed Rail Association, and Wendell Cox, principal of Demographia, a St. Louis region-based public policy firm. He was appointed to three terms on the Los Angeles County Transportation Commission, “The California High Speed Rail Proposal: A Due Diligence Report.” September 1, 2008, http://reason.org/files/1b544eba6f1d5f9e8012a8c36676ea7e.pdf, accessed 6-14-2012.

The CHSRA CO2 analysis440 assumes a reduction in driving that is greater than would be indicated in its own projections of driving reductions on segments of roadway impacted by HSR.441 As was noted above (see Part 5, Alternatives to Building the System), the CHSRA roadway segment analysis converts to a 0.6 percent statewide reduction under the CHSRA 2030 Base Ridership Projection, though it could be slightly higher if off-peak automobile diversion is greater than peak. This is well below the 2.3 percent statewide traffic reduction projection offered by CHSRA.442 If the roadway segment traffic projections are reasonably accurate, the CO2 analysis significantly overstates emissions reduction and, again, exaggerates HSR’s purported environmental benefits.

### Oil Shocks Defense (1/1)

#### Oil shocks do not negatively impact the economy directly and the central bank will not react poorly

Gregory White, “Here’s that Ben Bernanke Paper on Oil Shocks and Policy Blunders That Everyone is Talking About,” Business Insider, March 7, 2011, <http://www.businessinsider.com/ben-bernanke-systematic-monetary-policy-and-the-effects-of-oil-price-shocks-2011-3>.

Earlier we mentioned a Ben Bernanke paper from 1997 titled, [Systematic Monetary Policy and the Effects of Oil Price Shocks](http://ideas.repec.org/p/cvs/starer/97-25.html) and while the full thing is definitely worth a read, we have a breakdown for you right here. CNBC is talking about it today, too, in light of the ECB's talk of higher rates. The thesis is that it is central bank monetary policy in reaction to oil [price](http://www.businessinsider.com/ben-bernanke-systematic-monetary-policy-and-the-effects-of-oil-price-shocks-2011-3) spikes that creates economic downturns, not the oil price spike itself. Bernanke and his co-authors Mark Gertler and Mark Watson discover, utilizing a model that removes either the rate hike or the oil spike from the equation, that, when left alone, the economy actually [performs](http://www.businessinsider.com/ben-bernanke-systematic-monetary-policy-and-the-effects-of-oil-price-shocks-2011-3) better. Prices go up, yes, but so does output, and things stabilize a bit within 10 months. On the other hand, a rate hike ends up causing problems for years, reducing output. The implication of this is that Federal Reserve Chair Ben Bernanke has no interest in raising rate for a commodity or oil spike, so long as [prices](http://www.businessinsider.com/ben-bernanke-systematic-monetary-policy-and-the-effects-of-oil-price-shocks-2011-3) remain within Fed range, because it has a damaging impact on output that could send unemployment higher.

#### Previous economic declines were not triggered by oil prices –the U.S. economy is not as impacted by oil markets as people believe

Jerry Taylor, CATO senior fellow, and Peter Van Doren, senior fellow and expert in the regulation of housing, land, energy, the environment, transportation, and labor, “Be Not Afraid,” CATO Institute, September 28, 2007, <http://www.cato.org/pub_display.php?pub_id=8726>)

During the last week of September, 2003, oil was selling in U.S. spot markets for $23.86 a barrel. If one asked economists back then what would happen to the economy if oil prices were to hit $80 four years hence, they would have almost certainly predicted economic ruin. But the inflation, unemployment, and recession that supposedly follow oil price shocks are nowhere on the macroeconomic radar screen. If the economy goes into a tailspin, it will be in response to bad news in the housing market, not the oil market. The lesson to be derived from this is pretty clear: While oil-price spirals are certainly nothing for consumers to celebrate, the widespread belief that the health of the American economy is held hostage to oil markets is, for the most part, incorrect.

### Oil Shocks Good (1/2)

#### Rising oil prices boost alternative energy, slow China growth, boost the dollar, and stimulates investments in the economy

4XP, an award winning trading platform, “The Indirect Effects of High Oil Prices,” April 28, 2011, <http://oilprice.com/Energy/Oil-Prices/The-Indirect-Effects-of-High-Oil-Prices.html>.

Alternative Energy Surges – Rising oil prices always boost alternative energy discussions, and in turn, investments are routed in that direction. This helps create jobs, promotes R&D spending and eventually, may help drive down oil prices by providing a viable and clean alternative. Declining Growth in Asia – China is one of the fastest growing countries in the world in terms of industry and economy, and they heavily rely on oil to maintain their growth rates. Not only do higher oil prices slow them down like any other country, but they use energy in a much less efficient way, hurting growth even more. USD Goes Up – While this may not be the case at the current price hike, the US Dollar has traditionally seen a rise in value when oil prices went up. This happens because oil is generally priced in dollars, and the demand for the currency rises with higher energy costs. Other Energy Sources – When oil prices rise significantly, it is almost always followed by an immediate increase in demand for other energy-centric resources, such as coal and natural gas. Other Investments – When oil prices go up, many investors look elsewhere for investment options. This has a stimulating effect on the economy.

#### Public concerns over high oil prices guarantee policy changes towards alternative energy

Amanda Miller, “Survey finds that fuel-cost concern could drive policy changes, electric vehicles,” Clean Energy Authority, March 17, 2011, <http://www.cleanenergyauthority.com/solar-energy-news/price-of-gas-vs-renewable-energy-and-evs-031711/>.

The Consumer Federation of America released the results of a survey Wednesday that reveals Americans are more concerned than ever before with the cost of gasoline and the United States’ dependence on foreign oil, which could increase electric vehicle production and drive solar and other renewable energy development. The survey indicates that fears about rising gas prices and foreign oil are more likely than ever to drive policy changes regarding where the U.S. gets its fuel and how much it uses, especially in its cars, said Jack Gillis, director of public affairs for the federation. Of those middle class Americans, with household incomes ranging between $25,000 and $75,000 per year, 84 percent said they were greatly concerned about the cost of gas. Gillis said that gasoline is the highest it has ever been in real or adjusted dollars at this time of year and that, at an average of $2,800 a year, the average American household now spends more on fuel than on car loan repayment for the first time since loans became common. Gillis said that because, for the first time, middle class Americans are especially concerned about gasoline prices and fuel efficiency, it’s likely to light a fire under congress to make swift changes, especially when it comes to fuel efficiency standards for automobiles. “It’s usually just the low-income families that express concern about fuel prices,” Gillis said in a press call. “This time, it’s the middle class. And politicians are listening to the middle class right now.” The federation’s survey found that 70 percent of middle class respondents supported the government increasing the national fuel economy standard to 60 miles per gallon by 2025. “That 60-miles-per-gallon number is achievable,” federation CEO Steve Brobeck said. It’s in the range that is currently up for discussion, though it is on the higher end of the spectrum, Gillis said. “Automakers seem to be competing vigorously in this space right now,” Brobeck said. “Clearly, electric vehicles have arrived at least at the level of the first generation of deployment.” He noted that [electric-vehicle and plug-in, hybrid-vehicle production](http://www.cleanenergyauthority.com/solar-energy-news/ford-installing-solar-and-ev-charging-stations-031511/) is likely to increase at a rapid pace now that it’s becoming more widely accepted. “Look at the Toyota Prius,” he said. “When it first came out, it was an expensive statement car. Now it’s the number one cost-for-efficiency car on the road.” Solar industry gurus have speculated that electric vehicle batteries could be used to offset peak energy demand by [storing solar power](http://www.cleanenergyauthority.com/solar-energy-news/xcel-energy-using-solar-panels-to-store-energy-010311/)produced during the day and feeding it back to the grid in the evening hours. Brobeck said that the survey did not question respondents about energy generation, but that the general level of anxiety around fuel sources within one of the most politically valuable demographics could have wide-reaching impacts across the board when it comes to policy-makers.

### Oil Shocks Good (2/2)

#### Price shocks push the energy industry towards clean and sustainable sources

Charles Dewhurst, BDO USA, “Supply Disruptions Push US Toward a Greener Future,” E&P Magazine, world's leading publication dedicated to informing exploration, drilling and production operations managers, June 1, 2011, <http://www.epmag.com/Magazine/2011/6/item83887.php>.

Continued unrest in the Middle East has amplified concerns over America’s heavy reliance on foreign oil to satisfy growing energy needs. Until recently, the reality of a prolonged international crisis and its impact on the US oil market was an afterthought for many industry experts. Over the past few months, supply fears have played out in the markets, where crude oil prices returned to their highest levels since 2008, surpassing the US $120/bbl mark. And gasoline prices, which are nearing the $5 mark in some areas of the country, have put a hefty price tag on global supply issues for US consumers. Experts agree that limited oil exports from the Middle East are fueling the rise in crude oil prices, which are likely to rise even more as summer approaches. Due to supply interruptions in Libya, Saudi Arabia is increasing its oil production to more than 9 MMbbl/d, a rate that is unlikely to remain sustainable, especially if interruptions continue to spread throughout surrounding countries. Although oil remains a primary source of energy worldwide, these heightened supply fears spurred by recent disruptions in production have increased the urgency for the US to find both short- and long-term solutions to an oil shortfall. During the March CERA (Cambridge Energy Research Associates) Week conference, industry executives discussed US supply concerns and the significant pressure prolonged production interruptions have on the global oil industry. They also addressed the longer-term implications: that oil supply over the next 30 years is unlikely to match the 50% increase seen during the past 30 years. This could pose a considerable problem for the global energy industry because worldwide demand is expected to increase by 40% over the next 20 years.

#### Oil price shocks will push markets towards alternative energy

The Nation, “Volatile oil prices will push up the demand for Renewables,” January 10, 2011, <http://www.nationmultimedia.com/2011/01/10/business/Volatile-oil-prices-will-push-up-the-demand-for-Re-30146048.html>.

This year will be a golden year for renewable energy as volatile prices could push consumption of renewables to 12-14 per cent of the total, according to the Alternative Energy Development and Efficiency Department. Krairit Nilkuha, director-general of the department, said renewable energy is on the national agenda as oil prices are highly volatile and will be particularly so in the first quarter of this year. "The high oil prices will encourage us all to focus on renewable energy. We will have to push harder," he said. In a recent research report, Thai Oil said it expected Dubai crude oil prices to be more volatile and average US$85 (Bt2,570) per barrel this year, 8.97 per cent above last year's average of US$78. The firm forecast oil prices would rise in line with global economic expansion and tight supply from Opec countries. Factors influencing oil prices next year will include capital flows, international disputes, tighter regulations and natural disasters. "Global oil demand will average 99.8 million barrels per day, up by 1.3 million barrels from this year," the report said. "Over half of the demand will come from Asia, particularly China and India. "Demand in the United States, Europe and Japan will drop due to higher energy efficiency and a stronger push for renewable energy." Meanwhile, supply from non-Opec countries is expected to rise, particularly Latin American countries and Russia. This will help absorb a possible hike in oil prices. Thai Oil estimated that combined refining capacity of refineries in Asia will increase by just 120,000 barrels a day, mostly from China, India and Pakistan. Some refineries have delayed opening while others will be shut down. This means the oversupply problem will lessen. Domestically, petrol prices are expected to rise 60-70 satang per litre and diesel Bt1.30-Bt1.40, according to the Energy Business Department. Phiraphol Sakarin, director-general of the department, based his forecast on the likelihood that Dubai crude oil would average $83 per barrel this year. Refined oil products could rise $5-10 per barrel with refined petrol at $92.2 per barrel from $86.4 and diesel at $96.7 from $87.4. Every increase of $1 in oil prices will raise domestic prices by 19.20 satang per litre. The oil price could fall or rise 50-60 satang per litre if the baht strengthens or weakens by Bt1 per dollar. Krairit said licensed operators of renewable projects should be encouraged to start operations. Coupled with new projects to be unveiled, renewable energy consumption could account for 12-14 per cent of total this year. Solar power is the most promising renewable power source. The Alternative Energy Development and Efficiency Department says it will review regulations to allow solar panel installations on household roofs as well as solar boiling systems in private commercial premises. The department is celebrating its 58th anniversary this year.

## Hegemony

### HSR Will Not Boost Leadership (1/1)

#### High speed rail adds to the deficit and there is no leadership to be gained from investing in HSR for the U.S.

Robert Samuelson, columnist for The Washington Post, where he has written about business and economic issues, “High Speed Rail a Fast Track to Waste,” Real Clear Markets, February 14, 2011, http://www.realclearmarkets.com/articles/2011/02/14/high\_speed\_rail\_a\_fast\_track\_to\_waste\_98869.html, accessed 6-16-2012.

Rail buffs argue that subsidies for passenger service simply offset the huge government support of highways and airways. The subsidies "level the playing field." Wrong. In 2004, the Transportation Department evaluated federal transportation subsidies from 1990 to 2002. It found passenger rail service had the highest subsidy ($186.35 per thousand passenger-miles) followed by mass transit ($118.26 per thousand miles). By contrast, drivers received no net subsidy; their fuel taxes more than covered federal spending. Subsidies for airline passengers were about $5 per thousand miles traveled. (All figures are in inflation-adjusted year 2000 dollars.) High-speed rail would transform Amtrak's small drain into a much larger drain. Once built, high-speed-rail systems would face a dilemma. To recoup initial capital costs - construction and train purchases - ticket prices would have to be set so high that few people would choose rail. But lower prices, even with favorable passenger loads, might not cover costs. Government would be stuck with huge subsidies. Even without recovering capital costs, high-speed-rail systems would probably run in the red. Most mass-transit systems, despite high ridership, routinely have deficits. 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 (if fewer people fly from Denver to Los Angeles and more go to Houston, flight schedules simply adjust). Against history and logic is the imagery of high-speed rail as "green" and a cutting-edge technology. It's a triumph of fancy over fact. 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 market.

### Hegemony Defense (1/2)

#### Heg doesn’t solve war

Barbara Conry (former associate policy analyst, was a public relations consultant at Hensley Segal Rentschler and an expert on security issues in the Middle East, Western Europe, and Central Asia at the CATO Institute) and Charles V. Pena (Senior Fellow at the Independent Institute as well as a senior fellow with the Coalition for a Realistic Foreign Policy, and an adviser on the Straus Military Reform Project at the CATO Institute) 2003 “47. US Security Strategy” CATO Handbook for Congress, http://www.cato.org/pubs/handbook/hb108/hb108-47.pdf

Another rationale for attempting to manage global security is that a world without U.S. hegemony would soon degenerate into a tangle of chaos and instability, in which weapons proliferation, genocide, terrorism, and other offensive activities would be rampant. Prophets of such a development hint that if the United States fails to exercise robust political and military leadership today, the world is condemned to repeat the biggest mistakes of the 20th century—or perhaps do something even worse. Such thinking is seriously flawed. First, instability in the international system is nothing new, and most episodes do not affect U.S. vital interests. Furthermore, to assert that U.S. global leadership can stave off otherwise inevitable global chaos vastly overstates the power of any single country to influence world events. Indeed, many of the problems that plague the world today, such as civil wars and ethnic strife, are largely impervious to external solutions. There is little to back up an assertion that only Washington’s management of international security can save the world from political, economic, or military conflagration.

#### Empirically proven

Christopher J. Fettweis (Professor of national security affairs @ U.S. Naval War College) 2010 “Threat and Anxiety in US Foreign Policy,” Survival, Volume 52, Issue 2 April 2010 , pages 59 – 82

One potential explanation for the growth of global peace can be dismissed fairly quickly: US actions do not seem to have contributed much. The limited evidence suggests that there is little reason to believe in the stabilising power of the US hegemon, and that there is no relation between the relative level of American activism and international stability. During the 1990s, the United States cut back on its defence spending fairly substantially. By 1998, the United States was spending $100 billion less on defence in real terms than it had in 1990, a 25% reduction.29 To internationalists, defence hawks and other believers in hegemonic stability, this irresponsible 'peace dividend' endangered both national and global security. 'No serious analyst of American military capabilities', argued neo-conservatives William Kristol and Robert Kagan in 1996, 'doubts that the defense budget has been cut much too far to meet America's responsibilities to itself and to world peace'.30 And yet the verdict from the 1990s is fairly plain: the world grew more peaceful while the United States cut its forces. No state seemed to believe that its security was endangered by a less-capable US military, or at least none took any action that would suggest such a belief. No militaries were enhanced to address power vacuums; no security dilemmas drove insecurity or arms races; no regional balancing occurred once the stabilis-ing presence of the US military was diminished. The rest of the world acted as if the threat of international war was not a pressing concern, despite the reduction in US military capabilities. Most of all, the United States was no less safe. The incidence and magnitude of global conflict declined while the United States cut its military spending under President Bill Clinton, and kept declining as the George W. Bush administration ramped the spending back up. Complex statistical analysis is unnecessary to reach the conclusion that world peace and US military expenditure are unrelated.

### Hegemony Defense (2/2)

#### International system resilient – no conflict

Christopher Preble (director of foreign policy studies at the Cato Institute) August 2010 “U.S. Military Power: Preeminence for What Purpose?” http://www.cato-at-liberty.org/u-s-military-power-preeminence-for-what-purpose/

Most in Washington still embraces the notion that America is, and forever will be, the world’s indispensable nation. Some scholars, however, questioned the logic of hegemonic stability theory from the very beginning. A number continue to do so today. They advance arguments diametrically at odds with the primacist consensus. Trade routes need not be policed by a single dominant power; the international economy is complex and resilient. Supply disruptions are likely to be temporary, and the costs of mitigating their effects should be borne by those who stand to lose — or gain — the most. Islamic extremists are scary, but hardly comparable to the threat posed by a globe-straddling Soviet Union armed with thousands of nuclear weapons. It is frankly absurd that we spend more today to fight Osama bin Laden and his tiny band of murderous thugs than we spent to face down Joseph Stalin and Chairman Mao. Many factors have contributed to the dramatic decline in the number of wars between nation-states; it is unrealistic to expect that a new spasm of global conflict would erupt if the United States were to modestly refocus its efforts, draw down its military power, and call on other countries to play a larger role in their own defense, and in the security of their respective regions. But while there are credible alternatives to the United States serving in its current dual role as world policeman / armed social worker, the foreign policy establishment in Washington has no interest in exploring them. The people here have grown accustomed to living at the center of the earth, and indeed, of the universe. The tangible benefits of all this military spending flow disproportionately to this tiny corner of the United States while the schlubs in fly-over country pick up the tab.

## A/T Creature Comfort

### Trains are Uncomfortable (1/1)

#### Trains are expensive and uncomfortable

Running to Work, “WOT No Train?,” March 9, 2012, http://www.runningtowork.co.uk/wot-train/, accessed 6-16-2012.

There’s very little positive to say against the underground network. FACT! For anyone who’s spent any length of time dealing with the crowds. Trains are overly busy, uncomfortable, hot, noisy, smelly and damn right unpleasant! And not only that, but in their wisdom the authorities are jacking the prices up at considerable rates above inflation. As of the beginning of 2012, the average fare rose by almost 6% with the price of a single ticket within Zone 1, the most travelled route, being increased by a staggering 8% Running to work takes you away from all this hassle. The feeling of arriving showered, refreshed, and ready for the day ahead are unbeatable after a good run in. This is the polar opposite of arriving hassled and hurried from the cramped underground!

#### Trains are uncomfortable, dangerous, and dirty

Boots’n’All, “Trains, Planes, and Automobiles: Which to Take and Why?,” June 12, 2012, http://www.bootsnall.com/blog/trains-planes-and-automobiles-which-to-take-and-why.html, accessed 6-17-2012.

Taking the train can occasionally be inconvenient. You have to adjust your itinerary around the train’s time tables. Additionally, if you wanted to travel to a city without a station downtown, you would have to plan further trip transportation accordingly. Trains can be particularly crowded, uncomfortable, and dirty, especially in cities where they are a common commodity. Though you have the opportunity to meet great people, you also may find yourself in close quarters with drunkards, weirdos, and pickpockets among a number of other unsavory characters. So you have to practice caution!

### A/T Value to Life (1/2)

#### Their source is a book about astrology and love – not a credible source on the value to life

Amazon, “Book Description,” No Date, http://www.amazon.com/The-Secret-Language-Relationships-reissue/dp/067003262X, accessed 6-17-2012.

The Secret Language of Relationships shows how astrology can craft a relationship profile between any two individuals born during any two weeks of the year. The result is an indispensable guide to getting the most out of every relationship.

#### Human life is inherently valuable

Melinda Penner (Director of Operations – STR, Stand To Reason) 2005 “End of Life Ethics: A Primer”, Stand to Reason, http://www.str.org/site/News2?page=NewsArticle&id=5223

Intrinsic value is very different. Things with intrinsic value are valued for their own sake. They don’t have to achieve any other goal to be valuable. They are goods in themselves. Beauty, pleasure, and virtue are likely examples. Family and friendship are examples. Something that’s intrinsically valuable might also be instrumentally valuable, but even if it loses its instrumental value, its intrinsic value remains. Intrinsic value is what people mean when they use the phrase "the sanctity of life." Now when someone argues that someone doesn’t have "quality of life" they are arguing that life is only valuable as long as it obtains something else with quality, and when it can’t accomplish this, it’s not worth anything anymore. It's only instrumentally valuable. The problem with this view is that it is entirely subjective and changeable with regards to what might give value to life. Value becomes a completely personal matter, and, as we all know, our personal interests change over time. There is no grounding for objective human value and human rights if it’s not intrinsic value. Our legal system is built on the notion that humans have intrinsic value. The Declaration of Independence: "We hold these truths to be self-evident, that all men are created equal, that each person is endowed by his Creator with certain unalienable rights...." If human beings only have instrumental value, then slavery can be justified because there is nothing objectively valuable that requires our respect. There is nothing other than intrinsic value that can ground the unalienable equal rights we recognize because there is nothing about all human beings that is universal and equal. Intrinsic human value is what binds our social contract of rights. So if human life is intrinsically valuable, then it remains valuable even when our capacities are limited. Human life is valuable even with tremendous limitations. Human life remains valuable because its value is not derived from being able to talk, or walk, or feed yourself, or even reason at a certain level. Human beings don’t have value only in virtue of states of being (e.g., happiness) they can experience. The "quality of life" view is a poison pill because once we swallow it, we’re led down a logical slippery slope. The exact same principle can be used to take the life of human beings in all kinds of limited conditions because I wouldn't want to live that way. Would you want to live the life of a baby with Down’s Syndrome? No? Then kill her. Would you want to live the life of an infant with cerebral palsy? No? Then kill him. Would you want to live the life of a baby born with a cleft lip? No? Then kill her. (In fact, they did.) Once we accept this principle, it justifies killing every infant born with a condition that we deem a life we don’t want to live. There’s no reason not to kill every handicapped person who can’t speak for himself — because I wouldn’t want to live that way. This, in fact, is what has happened in Holland with the Groningen Protocol. Dutch doctors euthanize severely ill newborns and their society has accepted it.

#### Life without value is better than death.

Kenneth Waltz (Institute of War and Peace Studied; Father of realism) 1959 Man, The State, and War

St. Augustine had observed the importance of self-preservation in the hierarchy of human motivations. When we see that even the most wretched “fear to die, and will rather live in such misfortune than end it by death, is it not obvious enough,” he asks, “how nature shrinks from annihilation?”10 The desire for self-preservation is, with Augustine, an observed fact. It is not a principle sufficient to explain the whole of man’s behavior. For Spinoza, however, the end of every act is the self-preservation of the actor. The laws of nature are simply statements of what this single end requires: natural right, a statement of what it logically permits.11 The man who lives according to reason will demonstrate both courage and high-mindedness. That is, he will strive to preserve himself in accordance with the dictates of reason, and he will strive to aid other men and unite them to him in friendship. This is not a description of actual behavior; it is a description of behavior that is ideally rational. It is not because they are duties that the man who follows the dictates of reason behaves with courage and high-mindedness. Instead these characteristics are the necessary result of following reason.

### A/T Value to Life (2/2)

#### It’s a personal choice – external actors can’t decide the value of people’s lives

Lisa Schwartz, pub. date:2004**,** Medical Ethics, <http://www.fleshandbones.com/readingroom/viewchapter.cfm?ID=399>

Those who choose to reason on this basis hope that if the quality of a life can be measured then the answer to whether that life has value to the individual can be determined easily. This raises special problems, however, because the idea of quality involves a value judgement, and value judgements are, by their essence, subject to indeterminate relative factors such as preferences and dislikes. Hence, quality of life is difficult to measure and will vary according to individual tastes, preferences and aspirations. As a result, no general rules or principles can be asserted that would simplify decisions about the value of a life based on its quality. Nevertheless, quality is still an essential criterion in making such decisions because it gives legitimacy to the possibility that rational, autonomous persons can decide for themselves that their own lives either are worth, or are no longer worth, living. To disregard this possibility would be to imply that no individuals can legitimately make such value judgements about their own lives and, if nothing else, that would be counterintuitive. 2 In our case, Katherine Lewis had spent 10 months considering her decision before concluding that her life was no longer of a tolerable quality. She put a great deal of effort into the decision and she was competent when she made it. Who would be better placed to make this judgement for her than Katherine herself? And yet, a doctor faced with her request would most likely be uncertain about whether Katherine’s choice is truly in her best interest, and feel trepidation about assisting her. We need to know which considerations can be used to protect the patient’s interests. The quality of life criterion asserts that there is a difference between the type of life and the fact of life. This is the primary difference between it and the sanctity criterion discussed on page 115. Among quality of life considerations rest three assertions: 1. there is relative value to life 2. the value of a life is determined subjectively 3. not all lives are of equal value. Relative value The first assertion, that life is of relative value, could be taken in two ways. In one sense, it could mean that the value of a given life can be placed on a scale and measured against other lives. The scale could be a social scale, for example, where the contributions or potential for contribution of individuals are measured against those of fellow citizens. Critics of quality of life criteria frequently name this as a potential slippery slope where lives would be deemed worthy of saving, or even not saving, based on the relative social value of the individual concerned. So, for example, a mother of four children who is a practising doctor could be regarded of greater value to the community than an unmarried accountant. The concern is that the potential for discrimination is too high. Because of the possibility of prejudice and injustice, supporters of the quality of life criterion reject this interpersonal construction in favour of a second, more personalized, option. According to this interpretation, the notion of relative value is relevant not between individuals but within the context of one person’s life and is measured against that person’s needs and aspirations. So Katherine would base her decision on a comparison between her life before and after her illness. The value placed on the quality of a life would be determined by the individual depending on whether he or she believes the current state to be relatively preferable to previous or future states and whether he or she can foresee controlling the circumstances that make it that way. Thus, the life of an athlete who aspires to participate in the Olympics can be changed in relative value by an accident that leaves that person a quadriplegic. The athlete might decide that the relative value of her life is diminished after the accident, because she perceives her desires and aspirations to be reduced or beyond her capacity to control. However, if she receives treatment and counselling her aspirations could change and, with the adjustment, she could learn to value her life as a quadriplegic as much or more than her previous life. This illustrates how it is possible for a person to adjust the values by which they appraise their lives. For Katherine Lewis, the decision went the opposite way and she decided that a life of incapacity and constant pain was of relatively low value to her. It is not surprising that the most vociferous protesters against permitting people in Katherine’s position to be assisted in terminating their lives are people who themselves are disabled. Organizations run by, and that represent, persons with disabilities make two assertions in this light. First, they claim that accepting that Katherine Lewis has a right to die based on her determination that her life is of relatively little value is demeaning to all disabled people, and implies that any life with a severe disability is not worth living. Their second assertion is that with proper help, over time Katherine would be able to transform her personal outlook and find satisfaction in her life that would increase its relative value for her. The first assertion can be addressed by clarifying that the case of Katherine Lewis must not be taken as a general rule. Deontologists, who are interested in knowing general principles and duties that can be applied across all cases would not be very satisfied with this; they would prefer to be able to look to duties that would apply in all cases. Here, a case-based, context-sensitive approach is better suited. Contextualizing would permit freedom to act within a particular context, without the implication that the decision must hold in general. So, in this case, Katherine might decide that her life is relatively valueless. In another case, for example that of actor Christopher Reeve, the decision to seek other ways of valuing this major life change led to him perceiving his life as highly valuable, even if different in value from before the accident that made him a paraplegic. This invokes the second assertion, that Katherine could change her view over time. Although we recognize this is possible in some cases, it is not clear how it applies to Katherine. Here we have a case in which a rational and competent person has had time to consider her options and has chosen to end her life of suffering beyond what she believes she can endure. Ten months is a long time and it will have given her plenty of opportunity to consult with family and professionals about the possibilities open to her in the future. Given all this, it is reasonable to assume that Katherine has made a well-reasoned decision. It might not be a decision that everyone can agree with but if her reasoning process can be called into question then at what point can we say that a decision is sound? She meets all the criteria for competence and she is aware of the consequences of her decision. It would be very difficult to determine what arguments could truly justify interfering with her choice. Subjective determination The second assertion made by supporters of the quality of life as a criterion for decisionmaking is closely related to the first, but with an added dimension. This assertion suggests that the determination of the value of the quality of a given life is a subjective determination to be made by the person experiencing that life. The important addition here is that the decision is a personal one that, ideally, ought not to be made externally by another person but internally by the individual involved. Katherine Lewis made this decision for herself based on a comparison between two stages of her life. So did James Brady. Without this element, decisions based on quality of life criteria lack salient information and the patients concerned cannot give informed consent. Patients must be given the opportunity to decide for themselves whether they think their lives are worth living or not. To ignore or overlook patients’ judgement in this matter is to violate their autonomy and their freedom to decide for themselves on the basis of relevant information about their future, and comparative consideration of their past. As the deontological position puts it so well, to do so is to violate the imperative that we must treat persons as rational and as ends in themselves.

# Terrorism

### Terrorists Planning HSR Attack (1/1)

#### **Al-Qaeda has plans to attack passenger rail systems and has breached security before**

Donna R. Maurillo, “High-Speed Rail in the US: Will It Be a More Attractive Terror Target than Inter-city Rail?,” MINETA Transportation Institute, April 25, 2011, http://transweb.sjsu.edu/mtiportal/education/alumni/capstones/terror-targets-high-speed-rail-vs-intercity-rail-Maurillo.pdf, accessed 6-15-2012.

(U/FOUO) According to an FBI and DHS Joint Intelligence Bulletin, “As one option, al-Qa‘ida was looking at the possibility of tipping a train by tampering with the rails so that the train would fall off the track at either a valley or a bridge.”28 And yet, just one week after those potential plans were revealed, two security breaches were successfully carried out on the New York subway system. According to the New York Post, “Two terrifying rail security breaches occurred within hours of each other in the city yesterday – including one at the World Trade Center, where a man slipped into the PATH tunnel and walked all the way to Jersey before saying he had left a bomb in the tunnel. “That scare – and an unrelated escapade involving four ‘urban explorers’ infiltrating the under-construction Second Avenue Subway tunnel – come just days after the feds warned that al Qaeda could be targeting US trains.” 29

#### Al Qaeda has threatened U.S. passenger train systems while we cut our security funding

Donna R. Maurillo, “High-Speed Rail in the US: Will It Be a More Attractive Terror Target than Inter-city Rail?,” MINETA Transportation Institute, April 25, 2011, http://transweb.sjsu.edu/mtiportal/education/alumni/capstones/terror-targets-high-speed-rail-vs-intercity-rail-Maurillo.pdf, accessed 6-15-2012.

With the recent killing of Osama bin Laden, rail security has suddenly become a priority, given his purported plan to attack US rail. In a May 6, 2011 news release from the office of US Senator Frank R. Lautenberg (D-NJ), Chairman of the Senate Commerce Subcommittee on Surface Transportation, he said, “The documents seized at Osama bin Laden’s compound are a wake up call for America. When it comes to threats to our national security, trains are a prime target and must be better secured. Terrorists have attacked rail systems around the world and we’ve seen the devastating consequences in Moscow, Madrid, London and Mumbai. Now we have a handwritten note from Osama bin Laden’s compound targeting rail systems in the United States. We need to stop cutting security funding for our surface transportation network, and get to work protecting our railways from real threats.”

### Attack Likely on HSR (1/4)

#### Terrorism is likely on high speed rail – global attacks prove

Joseph Vranich, has been involved in rail passenger issues for more than thirty-five years, was President/CEO of the High Speed Rail Association, and Wendell Cox, principal of Demographia, a St. Louis region-based public policy firm. He was appointed to three terms on the Los Angeles County Transportation Commission, “The California High Speed Rail Proposal: A Due Diligence Report.” September 1, 2008, http://reason.org/files/1b544eba6f1d5f9e8012a8c36676ea7e.pdf, accessed 6-14-2012.

Terrorism against rail targets is a concern considering the extent of attacks that continue to occur on rail systems around the world. The Authority appears to be have given insufficient attention to this issue notwithstanding the RAND recommendation to industry and government regarding improvements to domestic rail security. The CHSRA documentation provides virtually no evidence that a proper security assessment of the proposed HSR system has been undertaken, nor does it appear that security applications and methodologies elsewhere have been reviewed. The Authority assumes minimal security at HSR train stations and concludes passengers will be spared airportlike security screening and delays. However, should more stringent security measures become necessary, the CHSRA’s ridership demand forecasts would be even further undermined. The CHSRA has not issued a low-end ridership forecast based on such a circumstance.

#### Trains are ideal targets for terrorism – easy access, anonymous, vulnerable

Brian Michael Jenkins, an expert on terrorism and transportation security, “Terrorism and the Security of Public Surface Transportation,” RAND, April 2004, http://www.rand.org/pubs/testimonies/2004/RAND\_CT226.pdf, accessed 6-15-2012.

Terrorist attacks on public transportation are nothing new. Since the early 1990s, those concerned with the security of public surface transportation have been increasingly worried that trains and buses were becoming highly attractive targets for terrorists bent upon body counts. Only the month before the Madrid bombings, a terrorist bomb killed 39 people and injured more than 100 on Moscow's Metro. In 2001, authorities in Singapore discovered a terrorist plot to bomb various sites, including the city's subways; and we know now that jihadists in Europe planned to detonate a bomb at Milan's central rail station. In recent years, terrorists linked with global jihad killed nine people and injured 60 on Manila's Metro and threatened to release toxic gas in Moscow's subways, inspired no doubt by the 1995 sarin attack on Tokyo's subways that left 12 dead and over 5,000 seriously ill. Islamic extremists launched a bombing campaign on the commuter trains of Paris, and since 2000, suicide bombers have killed scores of people on Israeli buses. For those determined to kill in quantity and willing to kill indiscriminately, trains, subways and buses are ideal targets. They offer terrorists easy access and escape. Congregations of strangers guarantee anonymity. Crowds in contained environments are especially vulnerable to both conventional explosives and unconventional weapons. Terrorist attacks on public transportation systems also cause great disruption and alarm – the traditional goals of terrorism. The terrorists who target transportation systems are often seeking slaughter. An analysis of nearly 1,000 terrorist attacks on transportation found that the percentage of those involving fatalities – 37 percent – was much higher than the percentage for terrorist attacks in general. Two-thirds of the surface transportation attacks clearly were intended to kill; 74 percent of the fatal attacks involved multiple fatalities; and 28 percent involved 10 or more fatalities.i Could such an attack happen here? Of course it could, and it nearly did in 1997, when Islamic extremists planned to carry out suicide bombings on New York City's subways. A lucky tip enabled police to foil the plot.

### Terrorism Likely on HSR (2/4)

#### HSR is a unique terrorist target due to its publicity, body count, and status as a technological icon

Donna R. Maurillo, “High-Speed Rail in the US: Will It Be a More Attractive Terror Target than Inter-city Rail?,” MINETA Transportation Institute, April 25, 2011, http://transweb.sjsu.edu/mtiportal/education/alumni/capstones/terror-targets-high-speed-rail-vs-intercity-rail-Maurillo.pdf, accessed 6-15-2012.

Others, such as Politico columnist Josh Gerstein, agree that there is a definite vulnerability. He wrote, “During a town hall meeting in Tampa today, President Barack Obama touted, as one of the benefits of high-speed rail that passengers wouldn't have to go through a security check that requires taking off their shoes... His remark got me wondering why rail security is so much more lax than airport security. And given that Obama was announcing that the federal government plans is [sic] awarding $8 billion in stimulus money for the planning and construction of high speed rail projects, wouldn't it be unwise to allow an Al Qaeda operative to blow up a chunk of that investment?” 8 He goes on to say that it’s true that terrorists seem focused on blowing up passenger planes, but anything high-profile can be a target. Any attack that would derail a train traveling more than 200 miles an hour wouldn’t be pretty, he wrote. Journalist Michael Scott Moore harbors a few concerns, as well. He wrote, “Simplicity is the best part of rail travel, and President Obama likes to say that American high-speed trains will involve no shoe checks. But Obama has his critics, and an expensive new high-speed line might look as tempting to an expansionist Transportation Safety Authority as to terrorists. So the question is worth some thought.”9 Some experts also agree that HSR has special vulnerabilities. Jenkins, Butterworth, and Clair (March 2010) say that, “In addition to the publicity, body count, and disruption sought by today’s terrorists, high-speed rail is an icon of technological progress, thus adding the emotional value that terrorists seek in their targets. For these reasons, the attempted derailment [of the French TGV], although fortunately a failure for the terrorists, takes on particular significance.”10 Therefore, it would appear that HSR could have real value as a target, especially as groups such as al Qaida continue to reach into the US to attract and train homegrown “lone wolf” terrorists – especially those who blend well with the local population – in its quest to attack Western cultural and economic symbols.11

### **Terrorism Likely on HSR (3/4)**

#### Terrorists have attacked high speed rails all around the world

Joseph Vranich, has been involved in rail passenger issues for more than thirty-five years, was President/CEO of the High Speed Rail Association, and Wendell Cox, principal of Demographia, a St. Louis region-based public policy firm. He was appointed to three terms on the Los Angeles County Transportation Commission, “The California High Speed Rail Proposal: A Due Diligence Report.” September 1, 2008, http://reason.org/files/1b544eba6f1d5f9e8012a8c36676ea7e.pdf, accessed 6-14-2012.

The RAND Corporation, in a 2007 study of transportation security, stated, “Recent attacks on passenger-rail systems around the world highlight the vulnerability of this form of transportation. The high use of passenger rail and the frequency with which terrorists target rail systems elsewhere call for a commitment to analyzing and improving rail security in the United States.”289 A review of threats and actual attacks against HSR systems is illustrative: 􀂃 In June 2008, French anti-terrorism police investigated a series of bomb threats targeting at least one TGV. Calls warned of bombs placed either near tracks or aboard trains traveling between the towns of Chambery and Aix-les-Bains, an area that draws tourists to mountain resorts.290 Two months later, rail traffic was interrupted when a bomb was found on TGV tracks in the French Basque region.291 􀂃 In May 2008, the West Japan Railway Co. received telephone calls in a money extortion plot related to timed incendiary devices at main stations in Kyoto, Osaka, and Kobe. Police found one improvised fire bomb at the Kyoto Station.292 􀂃 In 2004, terrorists took aim at high-speed systems by threatening to place bombs under tracks in France and Spain, which cause both railways to be searched in a costly and timeconsuming process. In France, ten thousand railway employees walked the tracks to look for bombs while trains were patrolled by the police and armed forces.293 French authorities put train stations on a red alert, the second-highest of its four levels of emergency preparedness, after the discovery of explosives on tracks near the town of Troyes, 120 miles (193 kilometers) east of Paris, and another device under rails in central France.294 After finding a bomb under the tracks of Spain’s Madrid–Seville high-speed line, police “combed all high-speed tracks ‘kilometer by kilometer’ while 45 helicopters [kept] watch from above and police dogs [sniffed] for explosives below.”295 􀂃 Also in 2004, an ICE Train avoided derailment after six metal plates were discovered bolted to the tracks, believed placed there as part of a terror campaign. The incident occurred near Dortmund on the high-speed Cologne–Berlin ICE Train line. The engineer of an approaching train spotted the plates, which were covered by garbage bags, and was able to brake sharply, slowing and stopping the train, which stayed on the rails. No one was injured.296 Some criticism has been directed to French officials for leaving the TGV system open to terrorist infiltration for a long time.297 The TGVs have been targeted since the 1980s. On March 17, 1986, an explosion occurred in the luggage compartment of a Paris–Lyon TGV while the train was on top a viaduct crossing a river. The emergency brakes brought the train to a stop at the Brunoy train station. On December 31, 1983, a bomb had been placed in the luggage compartment of a TGV on the Paris–Marseille line. It exploded near Lyon resulting in 5 deaths and 50 injured.298 72 Reason Foundat ion Recent Rail Attacks Worldwide Protecting rail passenger facilities is hardly an academic exercise. In a report to Congress The RAND Corporation summarized the history of worldwide attacks on passenger rail systems: Between 1998 and 2003, there were approximately 181 attacks on trains and related rail targets such as depots, ticket stations and rail bridges worldwide. Attacks on light rail systems and subway systems are included in these estimates. Attacks have occurred in all corners of the globe, including Venezuela, Colombia, India, Pakistan, Spain and the United Kingdom. These attacks resulted in an estimated 431 deaths and several thousand injuries. Bombs were the most frequently used weapon in these attacks, although firearms and arson have also been used.299 Since that testimony, other attacks have occurred resulting in an additional 536 fatalities, for a total of 967 between 1998 and 2007.300 The most infamous attack occurred on March 11, 2004, when ten bombs were detonated aboard four crowded commuter trains in Madrid, Spain, causing 191 fatalities and more than 1,800 injuries.301 Attacks on trains and rail facilities are incessant. In 2007, a bomb set along railroad tracks exploded and derailed the Moscow–St. Petersburg “Nevsky Express,” injuring scores of passengers and shutting down one of Russia’s busiest rail lines. The authorities said that counter-terrorist measures would be strengthened.302 In the same year, in Delhi, India, explosives on a train killed at least 66 people and injured 13 others.303 On July 11, 2006, a total of 187 commuters died and more than 700 were wounded in coordinated blasts in India on Mumbai’s train network during rush hour.304 Also in that year, German officials discovered a “mega-murder plot” on trains out of Cologne where two suitcases were discovered that contained firebombs wired to explode at the same time that could have killed hundreds of travelers.305 In London in July 2005, suicide bombers detonated bombs on the Underground subway system, killing 52 people and injuring several hundred.306 In February 2004, an explosion in a Moscow subway train killed 40 riders.307

### Terrorism Likely on HSR (4/4)

#### Either people will not shift from airplanes to the high speed rail or safety will be incredibly compromised at HSR to attract riders

Joseph Vranich, has been involved in rail passenger issues for more than thirty-five years, was President/CEO of the High Speed Rail Association, and Wendell Cox, principal of Demographia, a St. Louis region-based public policy firm. He was appointed to three terms on the Los Angeles County Transportation Commission, “The California High Speed Rail Proposal: A Due Diligence Report.” September 1, 2008, http://reason.org/files/1b544eba6f1d5f9e8012a8c36676ea7e.pdf, accessed 6-14-2012.

The Authority has repeatedly declared that overall trip time can be reduced if passengers shift from planes to trains because they can proceed more quickly through train stations that do not have the security checkpoints found at airports.285 The CHSRA assumption may be overly optimistic considering the security risks that officials say prevail today.286 The Authority’s revenue and ridership forecast of July 2006 established airport wait times at 55 minutes and HSR station wait times at 15 minutes. The CHSRA stated: The hassle and time variance of getting a boarding pass, checking luggage, and getting through security requires arrival at the airport earlier than at a train station without security checkpoints. It is explicitly assumed that high-speed rail will not have the elaborate security check-in procedures, boarding passes will not be required to wait for a train, seats are not assigned, and that luggage is typically self-carried on the train.287 A subsequent report was more explicit in stating that “There are currently no plans for airport security measures at high-speed rail stations.”288 The time differential was one of many assumptions used to determine competitiveness and create ridership projections.

#### A terrorist attack is highly likely on a high speed rail and would be devastating

Joseph Vranich, has been involved in rail passenger issues for more than thirty-five years, was President/CEO of the High Speed Rail Association, and Wendell Cox, principal of Demographia, a St. Louis region-based public policy firm. He was appointed to three terms on the Los Angeles County Transportation Commission, “The California High Speed Rail Proposal: A Due Diligence Report.” September 1, 2008, http://reason.org/files/1b544eba6f1d5f9e8012a8c36676ea7e.pdf, accessed 6-14-2012.

The Inherent Vulnerability The United States is fortunate that its rail system has escaped major attacks. Every mode of transportation has unique features that make it inherently vulnerable. Security has improved at airports—“closed and controlled locations with few entry points,” as the GAO calls them.316 The busiest train stations, in contrast, rely on the unencumbered movement of people through many unguarded doorways and trains. The RAND Corporation explains the concerns: Passenger rail facilities present potentially inviting targets for terrorists for a variety of reasons. They are easily penetrated and may have high concentrations of people. The logistics of a passenger rail attack are comparatively simple. For example, given the typical passenger density in a passenger rail station, substantial casualties can be inflicted with a backpacksized bomb. This is a substantially lower logistical burden than the one faced by the terrorists who committed the September 11 attacks. In addition, terrorists likely perceive psychological benefits to attacking passenger transportation networks. Rail transportation, like air travel, necessitates the passengers’ willingness to put personal safety in the hands of others. An attack is likely to leave passengers reluctant, however temporarily, to travel on the passenger rail system.317

### **Cyber Terrorism Likely on HSR (1/1)**

#### **Passenger rail systems are not secure and vulnerable to conventional and cyber attacks**

Donna R. Maurillo, “High-Speed Rail in the US: Will It Be a More Attractive Terror Target than Inter-city Rail?,” MINETA Transportation Institute, April 25, 2011, http://transweb.sjsu.edu/mtiportal/education/alumni/capstones/terror-targets-high-speed-rail-vs-intercity-rail-Maurillo.pdf, accessed 6-15-2012.

Unlike airports, passenger rail systems are difficult to secure because they are much more open to the public, leaving them highly vulnerable because security personnel can’t possibly monitor every person, package, or activity no matter how sophisticated the screening devices. Rail systems also are difficult to secure because the schedules are usually consistent and widely publicized, and the stations have many uncontrolled access points. These systems become especially attractive because of the expensive equipment and facilities, the large number of potential victims, typical location in dense urban areas, and the economic importance. Balancing the cost versus the payback is probably one of the most difficult challenges for security professionals.19 Another type of attack – the cyber attack – does not necessarily create high body counts, but that depends on the type of attack. Because it can disable or harm positive train control (PTC) and other digitally-based systems, a cyber attack certainly must be considered as a potential killing tool. Derailing and other disasters can be staged simply by hacking into the digital systems or introducing powerful malware. The recent Stuxnet virus, for example, was so elegantly designed that it was able to attack industrial systems and, according to Iranian officials, even enter computers of its nuclear project workers.20 However, not all hacking is aimed directly at the rail system itself. Some of it is directed toward identity theft as a means to impersonate operational staff, security officers, and others who have access to the systems’ control rooms, restricted areas, train yards, tracks, and other non-public areas. It has become relatively simple to counterfeit the digital ID cards and badges that operators have come to trust as innately secure.21

#### **Cyber attacks would be easy and devastating to high speed rail**

Donna R. Maurillo, “High-Speed Rail in the US: Will It Be a More Attractive Terror Target than Inter-city Rail?,” MINETA Transportation Institute, April 25, 2011, http://transweb.sjsu.edu/mtiportal/education/alumni/capstones/terror-targets-high-speed-rail-vs-intercity-rail-Maurillo.pdf, accessed 6-15-2012.

Given that a new HSR system will most certainly include a great deal of digital technology, hacking into the system could prove devastating. A social engineering attack can easily circumvent even the most sophisticated electronic protection because humans often can be the weakest link in a security protocol. According to Pinkerton counterespionage expert Bruce Wimmer, if a company experiences one type of cyber attack or social engineering attack, it should prepare for other security issues because attackers always use more than one technique.

### **Cyber Terrorism Impact (1/2)**

#### Cyber terror on transportation kills the economy

David A. McEntire, professor at UNT, “Chapter 9: Protecting against Potential Attacks,” Wiley Pathways Introduction to Homeland Security: Understanding Terrorism With an Emergency Management Perspective, 1st Edition, March 2008.

When conducting a threat assessment (or hazard and vulnerability analysis), it is important that you consider both critical infrastructure and key assets. Critical infrastructure is defined as interdependent networks comprised of industrial, utility, transportation, and other distribution systems (Pupura 2007, 359). According to Nancy Wong, the Deputy Director of the U.S. Critical Infrastructure Assurance Offi ce, examples of this infrastructure include: • Information and communications systems (computer networks, linebased phone systems, and cell towers) • Electrical systems (power plants, step up and step down stations, transformers) • Transportation systems (airports, highways, bridges, seaports) • Petro-chemical systems (oil wells, refi neries, storage facilities) • Water systems (dams, sewage treatment plants, distribution lines) (as cited by McEntire, Robinson and Weber 2001, 5) To this list of vulnerable locations, we may also want to add farms, food processing plants, and food distribution networks. They, too, may be deemed as critical infrastructure. All of these infrastructure systems are regarded to be “critical” because “their incapacity or destruction would have debilitating impact on the defense or economic security of the United States” (Clinton 1996). For instance, the loss of the Internet or phone systems would limit our ability to conduct business and communicate with others. ATMs and credit card swiping devices would be rendered useless. Disruption of energy systems would prohibit the heating and cooling of homes in the winter or summer, and limit visibility at night. The destruction of transportation systems would also have an enormous impact on the movement of goods and services. If petro-chemical plants are taken out of service, many aspects of our lives, including manufacturing and travel, would be in jeopardy. An attack on water and food resources could result in sickness or even death.

### Cyber Terrorism Impact (2/2)

#### Cyberterrorism causes accidental and deliberate nuclear war – ensures maximum escalation

Jason Fritz (Director of New Media Learning & Development and editor of the Office of Information Technology) May 2009 “Hacking Nuclear Command and Control” http://www.icnnd.org/latest/research/Jason\_Fritz\_Hacking\_NC2.pdf

This paper will analyse the threat of cyber terrorism in regard to nuclear weapons. Specifically, this research will use open source knowledge to identify the structure of nuclear command and control centres, how those structures might be compromised through computer network operations, and how doing so would fit within established cyber terrorists’ capabilities, strategies, and tactics. If access to command and control centres is obtained, terrorists could fake or actually cause one nuclear-armed state to attack another, thus provoking a nuclear response from another nuclear power. This may be an easier alternative for terrorist groups than building or acquiring a nuclear weapon or dirty bomb themselves. This would also act as a force equaliser, and provide terrorists with the asymmetric benefits of high speed, removal of geographical distance, and a relatively low cost. Continuing difficulties in developing computer tracking technologies which could trace the identity of intruders, and difficulties in establishing an internationally agreed upon legal framework to guide responses to computer network operations, point towards an inherent weakness in using computer networks to manage nuclear weaponry. This is particularly relevant to reducing the hair trigger posture of existing nuclear arsenals. All computers which are connected to the internet are susceptible to infiltration and remote control. Computers which operate on a closed network may also be compromised by various hacker methods, such as privilege escalation, roaming notebooks, wireless access points, embedded exploits in software and hardware, and maintenance entry points. For example, e-mail spoofing targeted at individuals who have access to a closed network, could lead to the installation of a virus on an open network. This virus could then be carelessly transported on removable data storage between the open and closed network. Information found on the internet may also reveal how to access these closed networks directly. Efforts by militaries to place increasing reliance on computer networks, including experimental technology such as autonomous systems, and their desire to have multiple launch options, such as nuclear triad capability, enables multiple entry points for terrorists. For example, if a terrestrial command centre is impenetrable, perhaps isolating one nuclear armed submarine would prove an easier task. There is evidence to suggest multiple attempts have been made by hackers to compromise the extremely low radio frequency once used by the US Navy to send nuclear launch approval to submerged submarines. Additionally, the alleged Soviet system known as Perimetr was designed to automatically launch nuclear weapons if it was unable to establish communications with Soviet leadership. This was intended as a retaliatory response in the event that nuclear weapons had 2 decapitated Soviet leadership; however it did not account for the possibility of cyber terrorists blocking communications through computer network operations in an attempt to engage the system. Should a warhead be launched, damage could be further enhanced through additional computer network operations. By using proxies, multi-layered attacks could be engineered. Terrorists could remotely commandeer computers in China and use them to launch a US nuclear attack against Russia. Thus Russia would believe it was under attack from the US and the US would believe China was responsible. Further, emergency response communications could be disrupted, transportation could be shut down, and disinformation, such as misdirection, could be planted, thereby hindering the disaster relief effort and maximizing destruction. Disruptions in communication and the use of disinformation could also be used to provoke uninformed responses. For example, a nuclear strike between India and Pakistan could be coordinated with Distributed Denial of Service attacks against key networks, so they would have further difficulty in identifying what happened and be forced to respond quickly. Terrorists could also knock out communications between these states so they cannot discuss the situation. Alternatively, amidst the confusion of a traditional large-scale terrorist attack, claims of responsibility and declarations of war could be falsified in an attempt to instigate a hasty military response. These false claims could be posted directly on Presidential, military, and government websites. E-mails could also be sent to the media and foreign governments using the IP addresses and e-mail accounts of government officials. A sophisticated and all encompassing combination of traditional terrorism and cyber terrorism could be enough to launch nuclear weapons on its own, without the need for compromising command and control centres directly.

### HSR Terrorism Impact [9/11] (1/3)

#### High speed rail is an easy option for terrorists to attack with the potential to repeat 9/11

Richard Rider, chairman of San Diego Tax Fighters, a grassroots, pro-taxpayer group, “RIDER: Terrorists' high-speed rail target,” North County Times, February 11, 2010, http://www.nctimes.com/news/opinion/columnists/rider/article\_f1be33a0-da4e-5162-800a-1b9f3da58c64.html, accessed 6-15-2012.

On behalf of terrorists everywhere, let me say that high speed rail (HSR) is a Godsend to the Jihad (or whatever cause lights their fire). A speeding “bullet train” will be like a plane flying at ground level at (supposedly) 220 MPH. At that velocity, if the train left the blown-up track, it would be like a plane coming down. Most passengers would likely be killed. Those that weren’t killed would probably wish they HAD been killed. The graphic pictures of the horribly maimed and dead would be exactly what the terrorists long for. Terrorists will take their cue from the French and Russian partisans in WWII who blew up NAZI trains with great success. Planes are hard to bring down — not so for trains. With HSR, all a terrorist needs to do is properly place a relatively small explosive charge on the track. As a HSR bullet train comes flying up to the spot, the terrorist remotely detonates the explosive. The best part for terrorists is that one doesn’t even have to be a suicide bomber. Just set the charge, detonate it, and drive away for another bombing later. One rebuttal I’ve heard from HSR proponents is that terrorists are interested in planes only as missiles they can dive into buildings. But one has to wonder if such Pollyannas have been watching the news since 2001. Does “shoe bomber” or “underpants on fire” ring a bell? But put that aside. The 9/11 attacks cost the bad guys 20 men. How many must die to blow up a HSR train track? Zero. A California “bullet train” will carry 950 when fully loaded. Presumably that full load is the terrorists’ target. So, assuming the bad guys want to repeat the casualties of 9/11 — How many HSR trains much be demolished to kill the same number of people as 9/11? Three. With no loss of life to the terrorists. Most important, HSR is an EASY train to wreck compared to airplanes. A HSR derailment requires minimal explosives, and recycles the terrorist. And the terrorists get to pick the worst spot to plant the explosives — perhaps just before the speeding train reaches a curve, or a bridge over a river or valley. Sure, terrorists are willing to die for their cause. But any terrorist (and their bosses) would rather they cause several catastrophes before finally getting killed or caught. One such disastrous bombing will be the effective end of California’s “high speed” rail. For safety purposes, “bullet train” traffic will have to be slowed to 60-70 MPH to reduce casualties from such derailings. HSR train passenger traffic will plummet, and this useless financial choo-choo will hang around our necks for decades.

### **HSR Terrorism Impact [Bioterror] (2/3)**

#### A terrorist attack on mass transit would ruin the economy and involve bioterror

Council on Foreign Relations, “Targets for Terrorism: Ground Transportation,” July 13, 2006, http://www.cfr.org/homeland-security/targets-terrorism-ground-transportation/p10198#p1, accessed 6-16-2012.

Could terrorists attack ground transportation in the United States? Yes. Since September 11, U.S. authorities have issued several general warnings of possible terrorist attacks on parts of the ground transportation system, including subways, railroad trains, and bridges. Unlike airlines, where security checkpoints screen passengers and luggage, mass transit options like subways, passenger trains, and buses, are designed to be easily accessible and are therefore harder to protect. Ground transportation systems—which often include enclosed spaces packed with people—could prove tempting targets for terrorists. How might terrorists attack ground transportation? Experts say the most likely sort of attack on U.S. subways or buses would involve setting off conventional bombs; the materials and know-how are readily available. Nor do experts rule out the sort of suicide bombings that have targeted Israeli buses. Less likely but far more devastating scenarios involve the release of a chemical agent such as sarin gas or a biological agent such as anthrax or smallpox into a subway system. Terrorists could also derail a passenger train or blow up a bridge or tunnel, killing many people and crippling a city’s infrastructure for months or even years.

#### Bioterror is the worst nightmare for the U.S. and would kill far more than 9/11

Barry Schneider, professor, “U.S. Biodefense Readiness: Thoughts after September 11th,” 2002,

www.au.af.mil/au/awc/awcgate/cpc.

It is important that U.S. homeland security and U.S. military officials not learn the wrong lessons from the late 2001 anthrax attacks. One conclusion that might be drawn, a misconception, is that the bioterrorist threat has been overblown since “only” a handful of people have died as a result of these attacks. This would be a serious misunderstanding if it were the conclusion of U.S. officials and the public. Perhaps the most alarming aspect of the whole series of events leading up to the September 11th attacks and anthrax aftermath was the fact that several of the Al Qaeda terrorists including Mohammed Atta, had looked into employing a crop duster aircraft prior to settling on the September 11th hijacking of U.S. airliners and subsequent attacks on the World Trade Center towers and the Pentagon. As of this writing it is not clear whether or not the anthrax attacks of October and November 2001 were the work of Al Qaeda operations or other terrorists, but if Al Qaeda possessed high quality inhalation anthrax like the anthrax that was used and distributed it using a crop duster over a large metropolitan area like Washington, D.C. then the losses of September 11th, bad as they were, would have been far less serious compared to what might have occurred. If this type of attack had been made, then the fatalities and casualties from such an event might have climbed into the hundreds of thousands, not the handful of bio-casualties that actually occurred. Such aerosolized anthrax attacks remain our worst nightmare whether we are talking about homeland security or the safety of U.S. troops deployed overseas.

### **HSR Terrorism Impact [Econ] (3/3)**

#### A terrorist attack on high speed rail would devastate the industry as well as cities across America – turns their econ impacts

Brian D. Taylor is director of the Institute of Transportation Studies at the University of California, “Terrorist Attacks and Transport Systems,” June 5, 2006, http://www.uctc.net/access/28/Access%2028%20-%2001%20-%20Comment%20-%20Terrorist%20Attacks%20and%20Transport%20Systems.pdf, accessed 6-16-2012.

But when crowds are the target, which is increasingly the case in recent suicide bomb attacks, defining the problem and its solutions in terms of transportation may be a mistake. Airports, rail stations, and bus and ferry terminals all congregate large numbers of people in small, often enclosed spaces, making them attractive targets for terrorists. But such crowding is in no way unique to transportation stations and terminals. Skyscrapers, shopping malls, concerts, and sporting events likewise assemble large numbers of people in small spaces—as do major celebrations (like the 4th of July on the Mall in Washington, DC) and parades (like the Tournament of Roses on New Year’s Day). Even if it were possible to completely close and secure public transit systems, there would remain a considerable number of potential venues for tragic and devastating attacks on large crowds of people. While public transit systems may currently be a favored venue of terrorists in search of crowds to attack, one cannot assume that securing or eliminating crowds on public transit would in any way end or even mitigate such attacks. This is important because attempting to close and secure public transit systems “airline-style” would strike a devastating blow to an industry already buffeted by decades of competition with private vehicles. Public transit networks remain the lifeblood of the central parts of the oldest, largest US cities; these places, and movement in them, would change forever should open, accessible transit systems be “secured.” Public assembly is a defining characteristic of free and open civil societies, and the consequences of closing, securing, or eliminating large gatherings of people—on public transit systems, in shopping malls, or at parades—reach well beyond the transportation sector and into the very heart of civil society.

### A/T Security Measures Solve (1/2)

#### Safety measures for air travel are inapplicable to surface transit – they would shut down public transportation

Brian Michael Jenkins, an expert on terrorism and transportation security, “Terrorism and the Security of Public Surface Transportation,” RAND, April 2004, http://www.rand.org/pubs/testimonies/2004/RAND\_CT226.pdf, accessed 6-15-2012.

Surface transportation cannot be protected in the same way commercial aviation is protected. Nearly 60,000 screeners are needed to check the 2 million passengers who fly from U.S. airports daily. An equivalent nationwide screening system for the approximately 26 million passengers traveling on trains, subways, and buses on an average day would require hundreds of thousands of screeners and would cost tens of billions of dollars. Trains, subways, and buses must remain readily accessible, convenient, and inexpensive. The deployment of metal detectors, X-ray machines, explosive sniffers, and armed guards, which have become features of the landscape at airports, cannot be transferred easily to subway stations or bus stops. The delays would be enormous and the costs prohibitive – public transportation would effectively be shut down. The alternative – making commuters use private vehicles – is impractical, would increase gridlock, and would raise the nation's death toll from traffic accidents. Moreover, any new set of security measures should provide a net security benefit; it should not merely displace the risk toward other equally vulnerable targets. For example, it would make little sense to protect only buildings on the north side of the street when terrorists could just as easily set off bombs on the south side. Keeping terrorists off airliners provides a net security benefit. As terrorists demonstrated on 9-11, a hijacked airliner can be turned into a missile that kills thousands. Security measures to protect airport lobbies, however, provide fewer net benefits. The same situation applies to trains and buses.

#### **Security crackdowns would deter people from riding the high speed rail**

Donna R. Maurillo, “High-Speed Rail in the US: Will It Be a More Attractive Terror Target than Inter-city Rail?,” MINETA Transportation Institute, April 25, 2011, http://transweb.sjsu.edu/mtiportal/education/alumni/capstones/terror-targets-high-speed-rail-vs-intercity-rail-Maurillo.pdf, accessed 6-15-2012.

That said, how far can HSR security go? Here in the US, people expect a greater amount of personal freedom, including the freedom to go where they wish with a minimum amount of inconvenience. Because Americans own so many private cars, they have come to expect that travel is a personal right that allows them to choose the route, mode, price, speed, distance, and even their traveling companions. As general experience with Transportation Security Administration screening in airports has shown, Americans don’t like to be slowed down (even for five or 10 minutes in a security line), to have their personal effects x-rayed and searched, and especially to have their bodies touched, scanned, or viewed in any state of undress. This is perhaps the reason that one major selling point for HSR is that “you won’t have to remove your shoes.” For now, that may be true. And for now, one may expect that HSR security measures will be at an acceptable level for most travelers – that is, at a less intrusive level than for air travel. Some foreigners may find this puzzling, especially if they have experienced – directly or indirectly – the effects of terrorism on public transportation. Because of this, they have come to accept a higher level of screening when they travel, and to expect armed guards, surveillance cameras, and other means of security. A report to the US GAO says, “According to foreign rail operators, these experiences have resulted in greater acceptance of certain security practices, such as random searches, which the U.S. public may view as a violation of their civil liberties or which may discourage them from using public transportation.”40

### **A/T Security Measures Solve (2/2)**

#### **Uniform security standards are nonexistent when it comes to passenger rail systems**

Donna R. Maurillo, “High-Speed Rail in the US: Will It Be a More Attractive Terror Target than Inter-city Rail?,” MINETA Transportation Institute, April 25, 2011, http://transweb.sjsu.edu/mtiportal/education/alumni/capstones/terror-targets-high-speed-rail-vs-intercity-rail-Maurillo.pdf, accessed 6-15-2012.

Other documents noted that rail regulations and enforcement are not always uniform across the US because of the number of operators, agencies, governments, and other stakeholders having an interest in securing rail assets. For example, the Federal Railroad Administration regulates rail safety for commuter rail and Amtrak. Individual states and municipalities have their own interests regarding rail that passes through their jurisdictions. Rail operators and private industry have a stake, each with its own policies. If those operations cross several state or local jurisdictions, it typically brings into play several different – and perhaps conflicting – policies and regulations. Even emergency response to rail incidents may fall to various government agencies.49

# AFF Terrorism Answers

### AFF Answers to Terrorism (1/3)

#### Terrorist attacks on railroads would be incredibly difficult

Michael Scott Moore, “Terrorist Attacks on Railroads Would Be Difficult,” Pacific Standard, May 11, 2011, http://www.psmag.com/politics/terrorist-threat-of-wrecking-the-railroad-really-hard-31033/, accessed 6-16-2012.

The point is that airport-style security would ruin everything good about a high-speed train, so light security lines have remained the rule with European rail. Terrorism has been a steady risk in Europe for decades, but even where authorities screen baggage — on some French, Spanish, and British high-speed lines — the wait tends to be quick. Which doesn’t stop some American security experts, like Dr. Seyom Brown in the Texas news report linked here, from urging full screening of passengers even on light-rail systems like Dallas-Area Rapid Transit. “I don’t like it, but those are such vulnerable targets. I hope we don’t have to wait for an attack to occur before we start doing that,” Brown told WFAA News in Dallas last week. “… If it’s somebody getting on a train with a suicide vest, a bomb vest, right now, we don’t have very effective screening of people who are getting on trains.” The dirty secret, of course, is that full security on any train system is impossible. Intriguingly, the Mineta study looked at 181 derailing attempts around the world since 1920 and found a full third of them in “South Asia” — India, Sri Lanka, Pakistan. “The deadliest attacks have occurred in the developing countries,” says the report, probably because poor nations lack the budget to sweep and patrol their train systems. So the idea of an American train disaster didn’t have to dawn on bin Laden from headlines about Washington’s push for high-speed rail; in fact his imagination didn’t have to wander far at all.

### AFF Answers to Terrorism (2/3)

#### Not an existential threat – no overreaction

John Mueller (Woody Hayes Chair of National Security Studies, Mershon Center, and is professor of Political Science, at Ohio State University) 2010 “Atomic Obsession: Nuclear Alarmism from Hiroshima to Al Qaeda” p. 232

From this perspective, then, **rhetorical declamations insisting** that **terrorism poses an existential threat are** **profoundly misguided**. And so self-destructive overreactions (like the war in Iraq) which are also encouraging to the terrorists. As Osama bin Laden crowed in 2004: It is easy for us to provoke and bait .... All that we have to do is to send two mujahidin ... to raise a piece of cloth on which is wtitten al-Qaeda in order to make the generals race there to cause America to suffer human, economic, and political losses. Our policy is one -...... of bleeding America to the point of bankruptcy. The terrorist attacks cost al-Qaeda $500,000 while the attack and its aftermath .. inflicted a cost of more than $500 billion on the United States. .... Or perhaps, it is even worse. To the extent that we "portray the terrorist nuclear threat as the thing we fear most," notes Susan Martin, "we ow--. ture the idea that this is what terrorists must do if they want to be taka. ; seriously:'48 **Existential bombast can be useful for scoring political points**, selling. newspapers, **or securing funding for pet projects** or bureaucratic expansion. However, it does so by essentially suggesting that, if the terrorists really want to destroy us, all they have to do is hit us with a terrific punch, particularly a nuclear one. Although **the attack may not in itself be remotely" enough to cause the nation to cease to exist, purveyors of bombast assure the** terrorists that the **target country will respond by** obligingly **destroying itself in** anguished **overreaction**. The suggestion, then, is that it is not ' only the most feared terrorists who are suicidal. As Sageman points out, the United States hardly faces a threat to its existence, because even a nuclear strike by terrorists "will not destroy the nation:' As things stand now, he.. adds, "only the United States could obliterate the United States:'49 Atomic terrorism may indeed be the single most serious threat to the national security of the United States. Assessed in an appropriate context, however, **the likelihood that such a calamity will come about seems breathtakingly small.** Sensible, cost-effective policies designed to make that probability even lower may be justified, given the damage that can be inflicted by an atomic explosion. But unjustified, **obsessive alarmism** about the likelihood and imminence of atomic terrorism **has** had policy consequences that have **been** costly and **unnecessary**. Among them are the war in Iraq and the focus on WMD that seduced federal agencies away from due preparation 5o for disasters that have actually happened, such as Hurricane Katrina. Arch-demon Zawahiri once noted that the group only became aware of biological weapons "when the enemy drew our attention to them by repeatedly expressing concerns that they can be produced simply with easily available materials;'5! By constantly suggesting that the United States will destroy itself in response to an atomic explosion, the existential bombast about a terrorist bomb that follows so naturally from decades of atomic obsession encourages the most diabolical and murderous terrorists to investigate the possibility of obtaining one. **Fortunately**, however, **would-be atomic terrorists are exceedingly unlikely to be successful** in such a quest, however intense the inspiration and encouragement they receive from the unintentional cheerleaders among their distant enemies.

### AFF Answers to Terrorism (3/3)

#### Terrorism inevitable

Hein 2005 (Paul Hein, retired ophthalmologist, "The Inevitability of Terrorism" July 8,

http://www.lewrockwell.com/hein/hein106.html)

Yesterday I had my day in court. Today the TV is full of the subway bombings in London. I conclude: terrorism is inevitable. Well, it wasn’t exactly a day in court; more like a half hour waiting around outside the courtroom, while my attorney negotiated with his opposite number. The resulting compromise was, like all compromises, bitter-sweet. I was counseled to accept the compromise, because if I didn’t, I’d almost certainly lose everything. My opponent was the State of Missouri, you see, and my frustration with the compromise was that the State didn’t have a legal leg to stand on. Indeed, in years of threats and bluster, the State had never once cited any statute that made me liable for its demands. The information on which its case was based was obtained unlawfully. That fact was utterly clear and undeniable. The procedures it had employed were either outside the law, or prohibited by it; and in years of correspondence, it had never once answered my requests for information with intelligent or responsive replies. But, of course, that was routine, and thus not to be questioned. While waiting around outside the courtroom, I overheard snatches of conversation between lawyers and clients. One fellow was apparently in litigation because of an auto accident. His attorney said that the other side would claim that a certain legal obligation had been performed within the 180 days time frame for its accomplishment; they would deny it. The case, I assume, hinged upon this detail of the law. Another lawyer was on his cell-phone, discussing with his client the withdrawal of driving privileges by the State. They were, I think, going to use some "loophole" in the law to try to get around this. I have no doubt that had the client suggested that the state was without authority to limit, via licensure, his ability to travel, the attorney would have collapsed in laughter, or exploded in indignation. The law, I am convinced, is about quibbling over details. Broad, sweeping, fundamental issues are not and will not be tolerated, at least when the state itself is a party to the case. But what would you expect? In a courtroom owned and operated by the state, with jurors almost certainly receiving some benefits from the state, before a judge who is an employee of the state, with your own lawyer bound by the rules written by the state, and owing his living to a license issued by the state, are you apt to prevail when you challenge some basic and commonplace infraction by the state? If the bombings in London were the work of Arab terrorists, as assumed, those terrorists would point to the British involvement in the ravaging of Iraq as justification. They would likely believe that their own governments, deeply involved with Britain in mutually lucrative deals, mostly involving oil, could only raise a limp wrist in opposition to British policy. If the oppressors were to be driven from their countries, the Arabs would have to fight independently. That is what seems to distinguish terrorists from ordinary soldiers. Soldiers fight governments on behalf of their own government; terrorists fight governments because their own government can’t or won’t. Governments today are the "muscle" for special interest groups; their original purpose, of protecting the rights of the citizens who created them, is forgotten, irrelevant, and obsolete. If the battle between the tyrants of country A and the tyrants in country B result in harm to the people in those countries, to whom can they turn for safety, and protection? The well-being of the people is considered to be against public – i.e., government – policy. It is obvious that governments cannot protect the people from terrorist attack, although they can greatly expand their power and influence over the public by claiming that they will do so, if only the people will yield just a little more sovereignty. Perhaps, eventually, it will be widely realized that government policies themselves give rise to terrorism, and the organization created by the people for the protection of their lives and property constitutes the gravest threat to those lives and property. And the legal system, except in cases in which the state has little or no interest, exists not to protect the rights of the people oppressed by the government, but rather, to protect the government from the people, and clothe its actions in the color of law. So terrorism is inevitable.

### **AFF Answers to Cyber terrorism (1/3)**

#### Cyber-terrorism is drastically exaggerated – no major attack has happened and 99 percent of hackers couldn’t inflict serious damage

USIP (United States Institute for Peace) December 2004 “Cyberterrorism How Real Is the Threat?” Cyberterrorism

How Real Is the Threat?

Amid all the dire warnings and alarming statistics that the subject of cyberterrorism generates, it is important to remember one simple statistic: so far, **there has been no recorded instance of a terrorist cyberattack** on U.S. public facilities, transportation systems, nuclear power plants, power grids, or other key components of the national infrastructure. Cyberattacks are common, but they have not been conducted by terrorists and they have not sought to inflict the kind of damage that would qualify them as cyberterrorism. Technological expertise and use of the Internet do not constitute evidence of planning for a cyberattack. Joshua Green (“The Myth of Cyberterrorism,” Washington Monthly, November 2002) makes this point after reviewing the data retrieved from terrorists in Afghanistan: When U.S. troops recovered al Qaeda laptops in Afghanistan, officials were surprised to find its members more technologically adept than previously believed. They discovered structural and engineering software, electronic models of a dam, and information on computerized water systems, nuclear power plants, and U.S. and European stadiums. But nothing suggested they were planning cyberattacks, only that they were using the Internet to communicate and coordinate physical attacks. Neither al Qaeda **no**r any other **terrorist organization appears to have tried to stage a serious cyberattack**. For now, insiders or individual hackers are responsible for most attacks and intrusions and the hackers’ motives are not political. According to a report issued in 2002 by IBM Global Security Analysis Lab, **90 percent of hackers are amateurs with limited technical proficiency, 9 percent are more skilled** at gaining unauthorized access **but do not damage the files they read**, and **only 1 percent are highly skilled and intent on** copying files or **damaging** programs and **systems**. Most hackers, it should be noted, try to expose security flaws in computer software, mainly in the operating systems produced by Microsoft. Their efforts in this direction have sometimes embarrassed corporations but have also been responsible for alerting the public and security professionals to serious security flaws. Moreover, although there are hackers with the ability to damage systems, disrupt e-commerce, and force websites offline, the vast majority of hackers do not have the necessary skills and knowledge. The ones who do, generally do not seek to wreak havoc. Douglas Thomas, a professor at the University of Southern California, spent seven years studying computer hackers in an effort to understand better who they are and what motivates them. Thomas interviewed hundreds of hackers and explored their “literature.” In testimony on July 24, 2002, before the House Subcommittee on Government Efficiency, Financial Management and Intergovernmental Relations, Thomas argued that “**with the vast majority of hackers**, I would say **99 percent of them, the risk [of cyberterrorism] is negligible** for the simple reason that those hackers do not have the skill or ability to organize or execute an attack that would be anything more than a minor inconvenience.” His judgment was echoed in Assessing the Risks of Cyberterrorism, Cyber War, and Other Cyber Threats, a 2002 report for the Center for Strategic and International Studies, written by Jim Lewis, a sixteen-year veteran of the State and Commerce Departments. “**The idea that hackers are going to bring the nation to its knees is too far-fetched a scenario to be taken seriously**,” Lewis argued. “Nations are more robust than the early analysts of cyberterrorism and cyberwarfare give them credit for. **Infrastructure systems [are] more flexible and responsive** in restoring service **than** the early **analysts realized**, in part because they have to deal with failure on a routine basis.” Many computer security experts do not believe that it is possible to use the Internet to inflict death on a large scale. Some pointed out that **the resilience of computer systems to attack is the result of significant investments of time, money, and expertise**. As Green describes, nuclear weapons systems are protected by “air-gapping”: they are not connected to the Internet or to any open computer network and thus they cannot be accessed by intruders, terrorists, or hackers. Thus, for example, **the Defense Department protects sensitive systems by isolating them from the Internet** and even from the Pentagon’s own internal network. T**he CIA’s classified computers are also air-gapped,** as is the FBI’s entire computer system.

### **AFF Answers to Cyber terrorism (2/3)**

#### Cyberterror threats are exaggerated – too many vested interests for accurate predictions

Jerry Brito (senior research fellow at the Mercatus Center and directs the Technology Policy Program at George Mason University) and Tate Watkins (research associate for the Technology Policy Program and the State and Local Policy Project at George Mason University) April 26, 2011 “Loving the Cyber Bomb? The Dangers of Threat Inflation in Cybersecurity Policy” <http://mercatus.org/sites/default/files/publication/WP1124_Loving_cyber_bomb.pdf>

**An industrial complex** reminiscent of the Cold War‘s **may be emerging in cybersecurity** today. Some serious threats may exist, but **we have** also **seen** evidence of **threat inflation. Alarm** raised **over potential cyber threats has led to a cyber industry** build-up and political **competition over cyber pork**. 1. Build-up In many cases, those now inflating the scope and probability of cyber threats might well benefit from increased regulation and more government spending on information security. Cybersecurity is a big and booming industry.163 The U.S. government is expected to spend $10.5 billion per year on information security by 2015, and analysts have estimated the worldwide market to be as much as $140 billion per year.164 The Department of Defense has also said it is seeking more than $3.2 billion in cybersecurityfunding for 2012.16In recent years, in addition to traditional **information security providers** like MacAfee, Symantec, and Checkpoint, **defense contractors and consulting firms** have **recognize**d **lucrative opportunities** in cybersecurity.166 **To weather** **probable cuts on** traditional **defense spending, and to take advantage of the growing market, these firms have positioned themselves to compete** with information security firms for government contracts.167 Lockheed Martin, Boeing, L-3 Communications, SAIC, and BAE Systems have all launched cybersecurity business divisions in recent years.168 Other traditional defense contractors, like Northrop Grumman, Raytheon, and ManTech International, have also invested in information security products and services.169 Such investments appear to have positioned defense firms well. In 2009, the top 10 information technology federal contractors included Lockheed Martin, Boeing, Northrop Grumman, General Dynamics, Raytheon, SAIC, L-3 Communications, and Booz Allen Hamilton.170 Traditional IT firms also see more opportunities to profit from cybersecurity business in both the public and private sectors.171 Earlier this year, a software security company executive noted ―a very large rise in interest in spending on computer security by the government.‖172 And as one IT market analyst put it: ―It‘s a cyber war and we‘re fighting it. In order to fight it, you need to spend more money, and some of the core beneficiaries of that trend will be the security software companies.‖173 Some companies from diverse industries have also combined forces in the cybersecurity buildup. In 2009, a combination of defense, security, and tech companies, including Lockheed, McAfee, Symantec, Cisco, Dell, Hewlett-Packard, Intel, Juniper Networks, and Microsoft, formed a cybersecurity technology alliance to study threats and innovate solutions.174 **IT lobbyists**, too, **have looked forward to cybersecurity budget increases**, to the dismay of at least one executive at a small tech firm, who claimed, ―**Money gets spent on the vendors who spend millions lobbying Congress**.‖175 There are serious real online threats, and security firms, government agencies, the military, and private companies clearly must invest to protect against such threats. But as with the Cold War bomber and missile gap frenzies, **we must be wary of parties with vested interests exaggerating threats,** leading to unjustified and superfluous defense spending in the name of national security.

### **AFF Answers to Cyber terrorism (3/3)**

#### Even new cyberterror therats are exaggerated

Tom Espiner (writer for ZDnet) January 2011 “Cyber-war risk is exaggerated, says OECD study” http://www.zdnet.co.uk/news/security/2011/01/17/cyber-war-risk-is-exaggerated-says-oecd-study-40091451/

In a cyber-warfare report released on Monday, the OECD said that **the risk of a catastrophic attack on critical national systems has been exaggerated. The majority of cyberattacks are low level** and cause inconvenience **rather than serious** or long-term disruption, according to report co-author professor Peter Sommer of the London School of Economics. "**There are many scare stories, which, when you test, don't actually pan out**," Sommer said. "**When you analyse malware, a lot is likely to be short term, or fail.**" Sophisticated malware such as Stuxnet, which targets industrial control processes, is the exception, not the norm, according to Sommer. Stuxnet used a number of zero-day vulnerabilities to target programmable logic controllers in frequency converter drives used mainly to control motors in uranium-enrichment facilities. Policy makers should be aware that a number of different cyber-events, disasters or physical attacks could come together to create a "perfect storm", says the report. However, **a pure cyber-war would be unlikely to occur**, with attacks on computer systems more likely to be used in conjunction with other, physical types of attacks.

#### No motivation – terrorists perceive other methods as more worthwhile

Sandeep Bhardwaj (Research Officer, Institute of Peace and Conflict Studies) August 2008 “Cyberterrorism: Threat Exaggerated?” http://www.ipcs.org/Terrorism\_kashmirLevel2.jsp?action=showView&kValue=2675&subCatID=1014&status=article&mod=g

In conclusion, while the threat of **cyber terrorism** in terms of hacking, viruses and cyber attacks remains real, it **is less serious than it is perceived to be. For a terrorist, a simple cost-benefit analysis would make clear that an IED, built with much less technical know-how, has a much larger impact than bringing down government networks.** However, a much more pertinent and significant threat which is often ignored, is the help terrorists get from internet to make their operations easier, global and hence more effective. The internet is a tool that can be used to increase productivity and this could well refer to how much destruction can be caused in the world.

### AFF Answers to Bioterrorism (1/2)

#### Bioterrorism is exaggerated – won’t cause extinction

Arms Control Center, 2010 (Scientists Working Group on Biological and Chemical Weapons, report in response to the Graham-Talent Commission report on the Prevention of WMD Proliferation and Terrorism, Center for Arms Control and Non-Proliferation, “Biological threats: a matter of balance” January 26, google)

• **The bioterrorist threat has been greatly exaggerated**. • New bioweapons assessments are needed that take into account the complex set of social and technical issues that shape bioweapons development and use by state and non-state actors, and that focus on more plausible threats than the worst-case scenarios that have largely driven discussion to date. • Continuing to emphasize and spend billions of dollars on measures to specifically counter bioterrorist threat scenarios distorts our national understanding of the important issues in public health, and diverts scarce scientific talent and resources away from more pressing public health and natural disease threats. • While it has been argued that spin-offs from biodefense programs contribute to countering natural diseases, the converse is more likely: direct targeting of effort and expenditure on natural disease threats would provide much greater public health benefit, and spin-offs from these programs would significantly strengthen resistance to bioterrorism. • Bioterrorist threats need to be seen and addressed within a wider public health context--as just one of the many possible ways in which infectious agents may harm human, animal, and plant health How Serious is the Bioterrorist Threat? • Beginning in the early 1990s, an increasing amount was written about the threat of bioterrorism. Prior to 2001 most examples of “bioterrorism” were in fact hoaxes or were only tenuously related to actual threats, with the single exception of the use of Salmonella to contaminate salad bars in Oregon in 1984. Much was made of the Japanese group Aum Shinrykio’s unsuccessful attempts to use anthrax and botulinum toxin without drawing the simple and obvious lesson that achieving success in such attempts is difficult. The 2001 anthrax letters were seen as validating large scale and catastrophic threat scenarios, despite the very real difficulties that isolated individuals or small groups would have had in making such material. By the time the source of those letters was identified in August 2008 as a government laboratory with capabilities vastly in excess of those of any terrorist organization, biodefense programs costing tens of billions of dollars were already established, producing a potent and vocal constituency for continued and increased funding. • Offensive, including **terrorist, use of biological agents presents major technical problems**. This is why the Soviet Union, United States, United Kingdom and others needed to spend vast sums for decades in order to research and develop biological weapons. Even then th**e results were considered an unreliable form of warfare**, and there was little opposition to their elimination by international agreement (indeed the US unilaterally eliminated its biological weapons stockpiles). • **Fictional bioterrorism exercises** such as Atlantic Storm and Dark Winter **routinely used unrealistic values for critical parameters and were unrealizable** by putative perpetrators. **They** tended to **gloss over the very real problems involved in acquiring, growing and disseminating** smallpox virus **on a sufficient scale to represent a major threat. They also posited unreasonable assumptions about** issues such as **the rate of disease spread, which skewed the outcomes towards inflated and unlikely results.**

#### Delivery is impossible – most likely methods ensure only a 5% risk

Stimson Center 2005 (Henry L. Stimson Center, Frequently Asked Questions: Likelihood of Terrorists Acquiring and Using Chemical or Biological Weapons, http://www.stimson.org/cwc/terror.htm)

**Terrorists cannot count on** just filling **the delivery system** with agent, pointing the device, and flipping the switch to activate it. Facets that must be deciphered include the concentration of agent in the delivery system, the ways in which the delivery system degrades the potency of the agent, and the right dosage to incapacitate or kill human or animal targets. For open-air delivery, the meteorological conditions must be taken into account. **Biological agents have extreme sensitivity to sunlight, humidity, pollutants in the atmosphere, temperature, and even exposure to oxygen, all of which can kill the microbes**. Biological **agents can be dispersed in either dry or wet forms**. Using a dry agent can boost effectiveness because drying and milling the agent can make the particles very fine, a key factor since particles must range between 1 to 10 ten microns, ideally to 1 to 5, to be breathed into the lungs. **Drying an agent**, however, **is done through a** **complex** and challenging **process that requires a sophistication of equipment and know-how that terrorist organizations are unlikely to possess. The alternative is to develop a wet slurry, which is** much easier to produce but a great deal **harder to disperse** effectively. **Wet slurries can clog sprayers and undergo mechanical stresses that can kill 95 percent or more of the microorganisms**.

### AFF Answers to Bioterrorism (2/2)

#### History is on our side - 96% of the time it only kills 3 or less people

Stimson Center 2005 (Henry L. Stimson Center, Frequently Asked Questions: Likelihood of Terrorists Acquiring and Using Chemical or Biological Weapons, http://www.stimson.org/cwc/terror.htm)

The Japanese cult Aum Shinrikyo was brimming with highly educated scientists, yet the cult's biological weapons program turned out to be a lemon. While its poison gas program certainly made more headway, it was rife with life-threatening production and dissemination accidents. After all of Aum's extensive financial and intellectual investment, the Tokyo subway attack killed a dozen people, seriously injured just over fifty more, and mildly injured just under 1,000. **In 96 percent of the cases worldwide where** chemical or **biological substances have been used** since 1975, **three or fewer people were injured or killed**