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## Inherency

#### Current policy is insufficient for the development of high speed rail, however HSR relies on congressional funding

Todorovich, Schned and Lane 11 (Petra Todorovich, Daniel Schned, and Robert Lane; Todorovich and Schned work in leading positions at America 2050, Lane is a senior fellow at Regional Plan Association; 09/16/2011; “High-Speed Rail International Lessons for U.S. Policy Makers”; <https://www.lincolninst.edu/pubs/dl/1948_1268_High-Speed%20Rail%20PFR_Webster.pdf>) KW

The **current federal policy** framework **for high-speed rail was shaped in response to** both **the history of unreliable and minimal federal contributions for passenger rail** and the efforts of individual states acting on their own initiative and with their own funding to improve rail corridors. While **PRIIA** is an improvement over the previous lack of a U.S. passenger rail policy, it **is not well-suited to a more ambitious, sustained federal commitment to building dedicated, multistate high-speed rail corridors**. Unlike the U.S. highway and transit programs, which rely on dedicated revenue streams from the federal motor fuels tax, **passenger rail has no dedicated source of revenue and thus relies on Congress** for general **fund appropriations**. Prior to the passage of PRIIA, most passenger rail appropriations were made directly to Amtrak each year, but with no multiyear authorization since 2002. Numerous Amtrak officials have testified to Congress over the years that the uncertainty of these annual, often politicized, appropriations makes planning and operating the railroad difficult.

#### And the new transportation bill provides no funding for high speed rail

APTA 11

(APTA – American Public Transportation Association; 2011-9-20; “An Analysis of Proposed U.S. House of Representatives Actions and Their Impact on Public Transportation”; Transportation Research Board database; accessed July 3) KW

On September 8 **the House** Transportation and Housing and Urban Development (THUD) Appropriations Subcommittee reported out of committee an FY 2012 THUD Appropriations bill that **included a 38% cut in federal funding for public transportation**. Also, on July 7 the **leadership** of the House Transportation and Infrastructure Committee **outlined a proposal that would cut** more than **a third in federal funding for public transportation for the entire duration of the** six year authorization of the **transportation bill**. Problems are exacerbated by a federal Highway Trust Fund which is unable to sustain FY 2011 funding levels without new trust-fund revenues or other support. The September 8 action by **the House** THUD **Subcommittee would** severely cut funding for Amtrak, and **include**s **no funding for high-speed** and intercity **rail** corridor **initiatives**. On June 15, leadership of the House Transportation and Infrastructure Committee rolled out a new direction for high-speed and intercity passenger rail, calling for reduced federal funding.

## Thus The Plan:

The United States Federal Government should substantially increase its investment in High Speed Rail.

## Advantage 1 Is Econ:

#### U.S. Infrastructure in horrible condition – it’s why our economy is unsustainable

Building America's Future 11

Building America’s Future, Building America’s Future: Falling Apart & Falling Behind, <http://www.bafuture.com/sites/default/files/Executive_summary_0.pdf>, 7-12-12, JL

Rebuilding America’s economic foundation is one of the most important missions we face in the 21st century. Our parents and grandparents built America into the world’s leading economic superpower. We have a responsibility to our own children and grandchildren to strengthen—not squander —that inheritance, and to pass on to them a country whose best days are still ahead. Our citizens live in a turbulent, complicated, and competitive world. The worst recession in eighty years cost us trillions in wealth and drove millions of Americans out of their jobs and homes. Even more, it called into question their belief in our system and faith in the way forward. Our infrastructure—and the good policy making that built it—is a key reason America became an economic superpower. But many of the great decisions which put us on that trajectory are now a half-century old. In the last decade, our global economic competitors have led the way in planning and building the transportation networks of the 21st century. Countries around the world have not only started spending more than the United States does today, but they made those financial commitments—of both public and private dollars—on the basis of 21st-century strategies that will equip them to make commanding strides in economic growth over the next 20-25 years. Unless we make significant changes in our course and direction, the foreign competition will pass us by, and a real opportunity to restore America’s economic strength will be lost. The American people deserve better. Falling Apart and Falling Behind lays out the economic challenges posed by our ailing infrastructure, provides a comparative look at the smart investments being made by our international competitors, and suggests a series of recommendations for crafting new innovative transportation policies in the U.S. This report frames the state of our infrastructure in terms of the new economic realities of the 21st-century economy and presents the challenges we currently face. The surge in global trade has realigned America’s business transport needs, complicating supply chains and increasing the need for sophisticated intermodal transportation. Our economically vital gateways and corridors now operate over capacity, imposing costs of $200 billion a year. Our passenger transport system, especially in our major metropolitan regions, is also burdened with costly congestion as passenger travel increases. Largely run on gasoline, our transportation system is environmentally, politically, and economically unsustainable. We have the world’s worst air traffic congestion, in part because we are still using the radar-based air traffic control system developed in the 1950s.

#### Jobs bad now; infrastructure investment creates jobs, key to economy & growth

Costa and Hersh 11

(Kristina, Research Assistant for the Doing What Works project and the Economic Policy team at American Progress; Adam, Economist at American Progress focusing on economic growth, macroeconomics, international economics, and China, PhD in Economics; “Infrastructure Spending Builds American Jobs”, September 8th, 2011; Center for American Progress; <http://www.americanprogress.org/issues/2011/09/jobs_infrastructure.html>, 7/12/12, BR)

The construction sector was particularly hard hit by the Great Recession of 2007-2009 and really never quite recovered, with devastating consequences for construction workers. Unemployment in construction remains dismal. In August 2011 the unemployment rate in the construction industry stood at 13.2 percent—substantially higher than the economy-wide unemployment rate of 9.1 percent. The loss of jobs and investment in construction has been dragging down the overall U.S. economy. At the same time, the United States’ transportation and other public infrastructure is underfunded, aging, and growing increasingly inadequate to serve the needs of families and business competitiveness. Fortunately, there is something very simple the federal government can do about these problems: Put more resources into infrastructure investment. We know from very recent experience that infrastructure investments deliver the goods for job creation and business growth. Two years ago, the unemployment rate for construction workers was 17 percent—before federal government stimulus funds boosted construction and the overall economy. In 2009 Congress and the Obama administration allocated an additional $29.9 billion in transportation spending for roads, bridges, and transit systems alongside another $21.7 billion for other infrastructure investments, ranging from funds for improving drinking and wastewater systems to large-scale civil engineering projects overseen by the Army Corps of Engineers.

#### High Speed Rail will spur economic growth through jobs – 3 key sectors affected

APTA 11(APTA - American Public Transportation Association; 4/6/2011; “Federal Investment in High-Speed Rail Could Spur 1.3 Million Jobs”; <http://www.apta.com/mediacenter/pressreleases/2011/Pages/110406_HSR_Business.aspx>; Kristof)

New report shows tangible economic benefits of investments in building a 21st century rail system Washington, DC – April 6, 2011 –The American Public Transportation Association (APTA) released a report detailing the enormous impact high-speed and intercity passenger rail projects will have in driving job development, while also rebuilding America’s manufacturing sector and generating billions of dollars in business sales. This report focuses on key issues critical to private investors as they consider investments or future expansion into businesses serving the growing passenger rail markets. The report, “The Case for Business Investment in High-Speed and Intercity Passenger Rail” reinforces the point that investments in high-speed and intercity rail will have many direct and indirect benefits. Nationally, due to proposed federal investment of high-speed rail over a six-year period, investment can result in supporting and creating more than 1.3 million jobs. This federal investment will be the catalyst for attracting state, local and private capital which will result in the support and creation of even more jobs. According to this new report, investments in building a 21st century rail system will not only lead to a large increase in construction jobs, but to the sustainable, long-term growth of new manufacturing and service jobs across the country.

#### High speed rail boosts the economy – mobility, direct and indirect employment, tourism, real estate and agglomeration are all unique internal links

Todorovich, Schned and Lane 11 (Petra Todorovich, Daniel Schned, and Robert Lane; Todorovich and Schned work in leading positions at America 2050, Lane is a senior fellow at Regional Plan Association; 09/16/2011; “High-Speed Rail International Lessons for U.S. Policy Makers”; <https://www.lincolninst.edu/pubs/dl/1948_1268_High-Speed%20Rail%20PFR_Webster.pdf>) Kristof

**High-speed rail’s ability to promote economic growth is grounded in its capacity to increase access to markets and exert positive effects on the** spatial **distribution of economic activity** (Redding and Sturm 2008). Transportation networks increase market access, and economic development is more likely to occur in places with more and better transportation infrastructure. In theory, **by improving access to** urban **markets, high speed rail increases employment, wages, and productivity; encourages agglomeration; and boosts regional and local economies**. Empirical evidence of high-speed rail’s impact around the world tends to support the following theoretical arguments for high-speed rail’s economic benefits. Higher wages and productivity: The **time savings and increased mobility offered by high-speed rail enables workers** in the service sector and in information exchange industries **to move about** the mega region **more freely** and reduces the costs of face-to-face communication. **This** enhanced **connectivity boosts worker productivity and business competitiveness, leading to higher wages** (Greengauge 21 2010). Deeper labor and employment markets: **By connecting more communities** to other population and job centers, **high speed rail expands the overall commuter shed** of the mega region. The **deepened labor markets give employers access to larger pools of skilled workers**, employees access to more employment options, and workers access to more and cheaper housing options outside of expensive city centers (Stolarick, Swain, and Adleraim 2010). Expanded tourism and visitor spending: Just as airports bring visitors and their spending power into the local economy, **high-speed rail stations attract new tourists and business travelers** who might not have made the trip otherwise. A study by the U.S. Conference of Mayors (2010) concluded that **building high-speed rail would increase visitor spending annually** by roughly $225 million in the Orlando region, $360 million in metropolitan Los Angeles, $50 million in the Chicago area, and $100 million in Greater Albany, New York. Direct job creation: **High-speed rail creates thousands of construction-related jobs in design, engineering, planning, and construction, as well as jobs in ongoing maintenance and operations**. In Spain, the expansion of the high-speed AVE system from Malaga to Seville is predicted to create 30,000 construction jobs (Euro Weekly 2010). In China, over 100,000 construction workers were involved in building the high-speed rail line that connects Beijing and Shanghai (Bradsher 2010). **Sustained investment could foster** the **development of new manufacturing industries for rail cars** and other equipment, **and generate large amounts of** related **employment**. Urban regeneration and station area development: **High-speed rail can generate growth in real estate markets and anchor investment in** commercial and residential **developments around train stations**, especially when they are built in coordination with a broader set of public interventions and urban design strategies (see chapter 3). These interventions ensure that high-speed rail is integrated into the urban and regional fabric, which in turn ensures the highest level of ridership and economic activity. For example, **the city of Lille**, France, **experienced greater than average growth and substantial office and hotel development after its high-speed rail station was built** at the crossroads of lines linking London, Paris, and Brussels (Nuworsoo and Deakin 2009). Spatial agglomeration: **High-speed rail enhances agglomeration economies by creating greater proximity between business locations** through shrinking time distances, especially when the locations are within the rail-friendly 100 to 600 mile range. Agglomeration economies occur when **firms benefit from locating close to other complementary firms and make use of the accessibility to varied activities and** pools of **skilled labor**. High-speed rail has also been described as altering the economic geography of mega regions. **By effectively bringing economic agents closer** together, **high-speed rail can create new linkages** among firms, suppliers, employees, and consumers that, over time, foster spatial concentration within regions (Ahlfeldt and Feddersen 2010). This interactive process creates net economic gains in addition to the other economic benefits described here. **A case study** in Germany (box 1) **exemplifies increased economic benefits associated with high-speed rail**, but in other cases the results have fallen short of expectations. This mixed evidence underscores the importance of ensuring that transportation connections, station locations, urban development, and promotional strategies are in place to maximize the economic impact of this capital-intensive investment.

#### U.S. at risk of losing global competitiveness in status quo

Kunz, president and CEO of the U.S. High Speed Rail Association, ‘11

(Andy, 3/11, U.S. High-Speed Rail: Time to Hop Aboard or Be Left Behind, 2011 <http://e360.yale.edu/feature/us_high-speed_rail_time_to_hop_aboard_or_be_left_behind/2378/>)

The U.S. must build a national high-speed rail network if it hopes to maintain its competitiveness in the world economy. China and Europe are now moving ahead with their high-speed rail networks at breakneck speed, which means that in a decade or two they will have significantly reduced their dependence on imported oil, created tens of millions of new jobs, and saved their countries trillions of dollars by vastly improving the productivity of their economies thanks to a low-carbon transportation sector that moves people and goods at speeds that could one day hit 300 miles per hour, or more. The U.S. can be part of that future. But if more states follow the example of Florida, Wisconsin, and Ohio, the country will remain shackled by 19th- and 20th-century forms of transportation in a 21st-century world. Contemplate this image: China, Europe, Russia, South America, and other parts of the globe are streaking by at 250 miles per hour while the likes of Governor Scott are stuck in a traffic jam on an interstate, watching the trains whiz past.

#### Now is a key time to act – delaying high speed rail will cede trade currency and economic leadership to China

Burns, international journalist and UN correspondent, 11

(Patrick Burns; international journalist and United Nations correspondent; February 1, 2011; “All Aboard for High-Speed Rail”; <http://www.policyinnovations.org/ideas/briefings/data/000194/>; accessed July 2) Kristof

Finally, **the risk of** further **procrastination on high-speed rail is part of** what President Obama has identified as **America's second Sputnik moment**. **China built its high-speed rail network**, the world's longest, in just a few years, and by 2020 it plans to cover 10,000 miles. **Americans are already concerned about losing ground to China in trade, currency, and education**. **Fast**, interconnected **railways would make China and the United States even more attractive to business** **and innovation**.

#### US is falling behind in infrastructure development – HSR key for America to catch up with countries like China

APTA, American Public Transportation Association, 2012

(American Public Transportation Association, January 2012, “An Inventory of the Criticisms of High-Speed Rail With Suggested Responses and Counterpoints”, <http://www.apta.com/resources/reportsandpublications/Documents/HSR-Defense.pdf>, 7/3/12, ML)

The president’s reference to the successful presence of high-speed rail in Europe and Asia has nothing to do with “keeping up with the International Joneses.” Moreover, it underscores the notion that building and operating high-speed rail is within reach and is practical . . . just look at what has been achieved in other places in the world. As to the “cost-effectiveness of high-speed rail,” the world experience, particularly in France, Japan, and now increasingly in the United Kingdom, suggests that as an alternative to building more highways or airports, and as a means of controlling future greenhouse gas emissions, both improvements to conventional passenger rail and the development of true high-speed rail, especially along both the East and West coasts, would indeed be very cost-effective alternatives. In March, 2009, the World Bank on-line newsletter “Infrastructure Investment” wrote: “In a recent report, the McKinsey Institute argued that America’s poor infrastructure is holding back its economic development. The top economist at the World Bank, Justin Lin, appears to agree. Earlier this week Lin said playing catch-up with China’s infrastructure investments would do the United States good, Bloomberg reports: ‘China averaged 9.6 percent economic growth from 1979 to 2002, as it quintupled the size of the country’s highway system to 25,000 kilometers (15,000 miles),’ he said. The U.S. could profit from following China’s lead, Lin said, noting the fastest train in the U.S., Amtrak’s Acela, took 2 hours and 46 minutes to bring him from Washington to New York this morning. In China, he said, a high-speed train would make the trip in an hour. Add one more voice to those in favor of infrastructure investment: Mary Meeker, financial analyst at Morgan Stanley and author of a new nonpartisan report called USA Inc., observes (that): “In recent decades, the United States has been spending less on productive investments, such as infrastructure and education, and more on areas of preservation, such as health care. That combination has caused America to lose its innovation edge.”

#### [Insert impact SCENARIO here]

## Advantage 2 is the Environment:

#### HSR would save 6 billion pounds of CO2 emissions annually – prevents noise and environmental pollution caused by cars and planes

ELPC, Environmental Law & Policy Center, 2012

(Environmental Law & Policy Center,2012, “Environmental Benefits of High-Speed Rail”, <http://www.highspeedrailworks.org/benefits/environmental/>, 7/5/12, ML)

A nationwide high-speed rail network could mean 29 million fewer car trips and 500,000 fewer plane flights annually, according to a 2006 study. That would save 6 billion pounds of carbon dioxide emissions, the equivalent of removing a million cars from the road annually. High-speed rail reduces our dependence on foreign oil, protects the environment and is an ecologically responsible way to utilize land and natural resources. The environmental advantages continue to increase as more ridership goes up. Additional passengers or baggage do not increase the amount of pollution generated by rail travel. One railroad track offers as much passenger capacity as 10 lanes of highway. Next generation locomotives are six more fuel efficient than those built 10 years ago. High-speed electric trains need only one-third of the energy of an airplane and one-fifth that of an automobile. The total predicted emissions savings of the California high-speed electric train system is up to 12 billion pounds of CO2 per year by 2030 and would grow with higher ridership. Rail travel has proven to be three times more energy efficient than highway travel and six times more energy efficient than air travel, according to Department of Transportation approved studies. The vehicles we drive release over 1.7 billion tons of CO2 into the atmosphere each year, contributing to global climate change. Each gallon of gasoline you burn creates 20 pounds of CO2. That’s about 6 to 9 tons of CO2 each year for a typical vehicle. Expanding airports and highways impacts wetlands and water resources, increases noise pollution and is detrimental to farmlands and wildlife. High-speed rail is a cleaner transportation option that reduces the need for new runways and traffic lanes, creating more convenient transportation with less environmental damage.

**We’ll isolate multiple impact scenarios:**

#### Scenario 1 is global warming

#### Warming is caused by emissions – an overwhelming amount of scientific evidence

Rahmstorf 8 (Stefan, Professor at the Postdam Institute for Climate Research, "Anthropogenic Climate Change: Revisiting the Facts," <http://www.pik> potsdam.de/~stefan/Publications/Book\_chapters/Rahmstorf\_Zedillo\_2008.pdf)

This paper discussed the evidence for the anthropogenic increase in atmospheric CO2 concentration and the effect of CO2 on climate, finding that this anthropogenic increase is proven beyond reasonable doubt and that a mass of evidence points to a CO2 effect on climate of 3°C ± 1.5°C global warming for a doubling of concentration. (This is the classic IPCC range; my personal assessment is that, in the light of new studies since the IPCC Third Assessment Report, the uncertainty range can now be narrowed somewhat to 3°C ± 1°C.) This is based on consistent results from theory, models, and data analysis, and, even in the absence of any computer models, the same result would still hold based on physics and on data from climate history alone. Considering the plethora of consistent evidence, the chance that these conclusions are wrong has to be considered minute. If the preceding is accepted, then it follows logically and incontrovertibly that a further increase in CO2 concentration will lead to further warming. The magnitude of our emissions depends on human behavior, but the climatic response to various emissions scenarios can be computed from the information presented here. The result is the famous range of future global temperature sce- narios shown in figure 3-6.50 Two additional steps are involved in these computations: the consideration of anthropogenic forcings other than CO2 (for example, other greenhouse gases and aerosols) and the computation of concentrations from the emissions. Other gases are not discussed here, although they are important to get quantitatively accurate results. CO2 is the largest and most important forcing. Concerning concentrations, the scenarios shown basically assume that ocean and biosphere take up a similar share of our emitted CO2 as in the past. This could turn out to be an optimistic assumption; some models indicate the possibility of a positive feedback, with the biosphere turning into a carbon source rather than a sink under growing climatic stress.51 It is clear that even in the more optimistic of the shown (non-mitigation) scenarios, global temperature would rise by 2–3°C above its preindustrial level by the end of this century. Even for a paleo- climatologist like myself, this is an extraordinarily high temperature, which is very likely unprecedented in at least the past 100,000 years. As far as the data show, we would have to go back about 3 million years, to the Pliocene, for comparable temperatures. The rate of this warming (which is important for the ability of ecosystems to cope) is also highly unusual and unprecedented probably for an even longer time. The last major global warming trend occurred when the last great Ice Age ended between 15,000 and 10,000 years ago: this was a warming of about 5°C over 5,000 years, that is, a rate of only 0.1°C per century.52 The expected magnitude and rate of planetary warming is highly likely to come with major risks and impacts in terms of sea level rise (Pliocene sea level was 25–35 meters higher than now due to smaller Greenland and Antarctic ice sheets), extreme events (for example, hurricane activity is expected to increase in a warmer climate), and ecosystem loss.53 The second part of this paper examined the evidence for the current warming of the planet and discussed what is known about its causes. This part showed that global warming is already a measured and well-established fact, not a theory. Many different lines of evidence consistently show that most of the observed warming of the past fifty years was caused by human activity. Above all, this warming is exactly what would be expected given the anthropogenic rise in greenhouse gases, and no viable alternative explanation for this warming has been proposed in the scientific literature. Taken together, the very strong evidence, accumulated from thousands of independent studies, has over the past decades convinced virtually every climatologist around the world (many of whom were initially quite skeptical, including myself) that anthropogenic global warming is a reality with which we need to deal.

#### Warming is the biggest impact in this round - kills hundreds of millions, destroys food/water/other resources, loss of land

Doebbler 11 (

Curtis, International Human Rights Lawyer, “Two threats to our existence.” Ahram Weekly 1055 http://weekly.ahram.org.eg/2011/1055/envrnmnt.htm)

**Climate change is widely acknowledged to be the greatest threat facing humanity. It will lead to small island states disappearing from the face of the earth, serious global threats to our food and water supplies, and ultimately the death of hundreds of millions of the poorest people in the world over the course of this century.** No other threat **-- including war, nuclear disasters, rogue regimes, terrorism, or the fiscal irresponsibility of governments -- is reliably predicted to cause so much harm to so many people on earth, and indeed to the earth itself**. The International Panel on Climate Change, which won the Nobel Prize for its evaluation of thousands of research studies to provide us accurate information on climate change, has predicted that under the current scenario of "business-as-usual", temperatures could rise by as much as 10 degrees Celsius in some parts of the world. This would have horrendous consequences for the most vulnerable people in the world. Consequences that the past spokesman of 136 developing countries, Lumumba Diaping, described as the equivalent of sending hundreds of millions of Africans to the furnace. Yet for more than two decades, states have failed to take adequate action to either prevent climate change or to deal with its consequences. A major reason for this is that many wealthy industrialised countries view climate change as at worst an inconvenience, or at best even a potential market condition from which they can profit at the expense of developing countries. Indeed, history has shown them that because of their significantly higher levels of population they have grown rich and been able to enslave, exploit and marginalise their neighbours in developing countries. They continue in this vein.

#### HSR reduces greenhouse gas emissions and foreign oil dependence by incentivizing a switch from cars to rail

AHSRA, American High Speed Rail Alliance, 2009

(American High Speed Rail Alliance, 2009, “HIGH SPEED RAIL ENVIRONMENTAL BENEFITS”, <http://eunicecorbin.com/sample/advocacy/environment.html>, 7/5/12, ML)

High speed rail development promises tremendous environmental benefits and bolsters U.S. energy security. High speed rail development in the U.S. would reduce carbon in the atmosphere, help control congestion on the roads, lower consumption of energy and help reduce America’s dependence on foreign oil. Automobile transportation currently impacts the environment in a big way. Transportation sources account for nearly a third of U.S. greenhouse gas emissions and it is the fastest-growing source. Transportation is also the largest end-use source of CO2, which is the most prevalent greenhouse gas. Automobile trips account for 90 percent of U.S. intercity trips; air travel accounts for 7 percent. If passengers were to cancel their automobile and airplane trips in favor of high speed rail, it would save 6 billion pounds of C02 per year, according to the Center for Clean Air Policy and the Center for Neighborhood Technology in a report funded by the U.S. EPA. High speed rail development will help ease congestion by incentivizing drivers to come off the roads. Due to the increased congestion in the cities and on major highways, 4.2 billion hours of extra time is spent on the road, wasting 2.8 billions of additional fuel and costing up to $87.2 billion, according to the U.S. Public Interest Research Group. By lowering transportation fuel consumption, high speed rail development would lead to increased energy conservation in America. The U.S. consumes 25 percent of the world’s oil, yet it is only 5 percent of the world’s population and has less than 3 percent of the world’s oil reserves, according to the Natural Resource Defense Council. Of the oil that is consumed, 70 percent of it goes towards transportation, according to the National Commission on Energy Policy. The American Security Project calculates that 68 percent of U.S. petroleum comes from countries with “high” or “very high” risk of political instability. High speed rail development would decrease the need for foreign oil, allowing the country to be more energy-independent. The American High Speed Rail Alliance believes high speed rail must be part of the clean energy solution to reduce America’s dependence on fossil fuel and reduce greenhouse gas emissions.

**Personal transportation is the largest emitter of greenhouse gases, reducing these emissions is key to solve warming**

**James 11** (James, Tony; Engineering & Technology (17509637); Jul2011, Vol. 6 Issue 6, p84-86, 3p, 2 Color Photographs; EBSCO; accessed July 2) Kristof

TWENTY-FIRST CENTURY citizens are travelling more than ever before. According to experts the upward trend is set to continue, with **global travel predicted to increase by** around **1.6 per cent each year between now and 2030**. **There is**, however, **a price to pay for** all **this mobility in the form of carbon emissions**. According to the International Energy Agency, the transport sector already accounts for 28 per cent of global energy consumption and pumps 6.4 billion tonnes of CO2 into the atmosphere – 23 per cent of worldwide energy-related CO2 emissions. **Personal transportation is the biggest polluter**. **More than half of the transport sector’s energy consumption can be attributed to** **cars**, while **road** freight **traffic accounts for 30 per cent**. At just 13 per cent, air traffic’s contribution is relatively low, while **rail systems account for only 2 per cent** of the sector’s energy use. **Rail travel,** then, clearly **presents** some sort of **answer to the CO2 problem** – **or, more accurately, high-speed rail**. Driven by increasing petrol prices, cutbacks in flight schedules, delays and increased security at airports and the seemingly endless traffic congestion, **governments around the world are looking seriously at rail investment**.

#### The plan also builds support for international climate agreements

Burwell 10 (David, Director of the Energy and Climate Program @ Carnegie Endowment for International Peace, " Transportation—The Leading Cause of Global Warming," http://carnegieendowment.org/2010/04/15/transportation-leading-cause-of-global-warming/2fr2)

**Road transportation is the greatest contributor to global warming** for the next 50 years according to a recent study by NASA’s Goddard Institute for Space Studies. By analyzing the climate impact of each sector of the economy, the study determined that **motor vehicles emit significant levels of pollutants that warm the atmosphere** with few counteracting pollutants that create a cooling effect. In a video Q&A, David Burwell suggests steps **U.S. policy makers can take to reduce emissions, promote green growth, and mitigate transportation’s harmful effects on climate**. “**We have to** look at how much we drive and **take actions** to reduce the total demand for transportation—particularly driving,” says Burwell. **By moving forward with a** transportation **bill that invests in a green transportation system, “the United States could show other countries—particularly China, India, and other emerging economies—that it is serious about reducing its transportation carbon and this would contribute to the likelihood of a global climate agreement.”**

#### Scenario 2 is bio diversity

#### Highways are devastating to bio diversity – they use 20 times more land than they appear to

White, Director at the Habitat and Highways program, and Ernst, MA in Environmental Science from Yale, currently a staff analyst for the tri-state transportation campaign 3 (Patricia A. White and Michelle Ernst; White: Director, Habitat and Highways Program, Ernst: MA in Environmental Science from Yale, currently a staff analyst for the tri-state transportation campaign; “Second Nature: Second Nature”; Defenders of Wildlife; 04/15/2003; <http://www.transact.org/library/reports_pdfs/biodiversity/second_nature.pdf>; accessed July 14, 2012; Kristof)

**Road ecology**, a new field of study, **seeks to explain the complex relationship between roads and the natural environment**. **A road’s environmental footprint extends** far **beyond** the edge of **its pavement**. In fact, nationwide **the “road-effect zone” is estimated to be 15 to 20 times as large as the actual paved right of way. Transportation infrastructure has significant direct and indirect effects on the natural environment. Roads directly affect wildlife habitat, ecosystems, and water quality through land consumption, roadkill, habitat fragmentation, and replacement of natural cover with impervious surfaces and invasive species.** Poorly planned **roads and highways open up vast areas of wilderness and farmland to sprawling residential and commercial development**. INTEGRATED PLANNING State and federal agencies spend considerable time and capital both protecting natural areas and building transportation infrastructure. Unfortunately, conservation and growth efforts often happen independently and then come into conflict during the permitting and construction phases of a transportation project. But, if conservation efforts are taken into account at the earliest stages of transportation planning, both priorities can be realized, in less time and at less cost.

#### Loss of biodiversity risks large-scale extinction and the destruction of the Earth

Coyne and Hoekstra 7

(Jerry, professor in the department of ecology and evolution at the University of Chicago, and Hopi E., associate professor in the department of organismic and evolutionary biology at Harvard University, “Diversity lost as we head towards a lonely planet”, The Australian) KA

Extinction exacerbates global warming: by burning rainforests, we're not only polluting the atmosphere with carbon dioxide (a greenhouse gas) but destroying the plants that can remove this gas from the air. Conversely, global warming increases extinction, directly (killing corals) and indirectly (destroying the habitats of Arctic and Antarctic animals). As extinction increases, then, so does global warming, which in turn causes more extinction and so on, into a downward spiral of destruction. Why, exactly, should we care? Let's start with the most celebrated case: rainforests. Their loss will worsen global warming, raising temperatures, melting icecaps and flooding coastal cities. And, as the forest habitat shrinks, so begins the inevitable contact between organisms that have not evolved together, a scenario played out many times and one that is never good. Dreadful diseases have successfully jumped species boundaries, with humans as prime recipients. We have got AIDS from apes, severe acute respiratory syndrome from civets and Ebola from fruit bats. Additional worldwide plagues from unknown microbes are a real possibility. But it isn't just the destruction of the rainforests that should trouble us. Healthy ecosystems the world over provide hidden services such as waste disposal, nutrient cycling, soil formation, water purification and oxygen production. Such services are best rendered by ecosystems that are diverse. Yet, through intention and accident, humans have introduced exotic species that turn biodiversity into monoculture. Fast-growing zebra mussels, for example, have outcompeted more than 15 species of native mussels in North America's Great Lakes and have damaged harbours and water-treatment plants. Native prairies are becoming dominated by single species (often genetically homogenous) of corn or wheat. Thanks to these developments, soils will erode and become unproductive which, along with temperature change, will diminish agricultural yields. Meanwhile, with increased pollution and run-off, as well as reduced forest cover, ecosystems will no longer be able to purify water, and a shortage of clean water spells disaster. In many ways, oceans are the most vulnerable areas of all. As overfishing eliminates important predators, while polluted and warming waters kill off phytoplankton, the intricate aquatic food web could collapse from both sides. Fish, on which so many humans depend, will be a fond memory. As phytoplankton vanish, so does the ability of the oceans to absorb carbon dioxide and produce oxygen. (Half of the oxygen we breathe is made by phytoplankton, with the rest coming from land plants.) Species extinction is also imperilling coral reefs, a big problem since these reefs have more than recreational value: they provide tremendous amounts of food for human populations and buffer coastlines against erosion. Indeed, the global value of hidden services provided by ecosystems -- those services, such as waste disposal, that aren't bought and sold in the marketplace -- has been estimated to be as much as $US50thousand billion ($53.8 thousand billion) a year, roughly equal to the gross domestic product of all countries combined. And that doesn't include tangible goods such as fish and timber. Life as we know it would be impossible if ecosystems collapsed. Yet that is where we're heading if species extinction continues at its present pace. Extinction also has a huge impact on medicine. Who really cares if, say, a worm in the remote swamps of French Guiana becomes extinct? Well, those who suffer from cardiovascular disease. The recent discovery of a rare South American leech has led to the isolation of a powerful enzyme that, unlike other anticoagulants, not only prevents blood from clotting but also dissolves existing clots. And it's not just this species of worm: its wriggly relatives have evolved other biomedically valuable proteins, including antistatin (a potential anti-cancer agent), decorsin and ornatin (platelet aggregation inhibitors) and hirudin (another anticoagulant). Plants, too, are pharmaceutical goldmines. The bark of trees, for example, has given us quinine (the first cure for malaria), taxol (a drug that is highly effective against ovarian and breast cancer) and aspirin. More than one-quarter of the medicines on our pharmacy shelves were originally derived from plants. The sap of the Madagascar periwinkle contains more than 70 useful alkaloids, including vincristine, a powerful anti-cancer drug that saved the life of one of our friends. Of the roughly 250,000 plant species on Earth, fewer than 5 per cent have been screened for pharmaceutical properties. Who knows what life-saving drugs remain to be discovered? Given present extinction rates, it's estimated that we're losing one valuable drug every two years. Our arguments so far have tacitly assumed that species are worth saving only in proportion to their economic value and their effects on our quality of life, an attitude that is strongly ingrained, especially in Americans. That is why conservationists always base their case on an economic calculus. But we biologists know in our hearts that there are deeper and equally compelling reasons to worry about the loss of biodiversity: namely, morality and intellectual values that transcend pecuniary interests. What, for example, gives us the right to destroy other creatures? And what could be more thrilling than looking around us, seeing that we are surrounded by our evolutionary cousins and realising that we all got here by the same simple process of natural selection? To biologists, and potentially everyone else, apprehending the genetic kinship and common origin of all species is a spiritual experience, not necessarily religious but spiritual nonetheless, for it stirs the soul. But whether or not one is moved by such concerns, it is certain that our future is bleak if we do nothing to stem this sixth extinction. We are creating a world in which exotic diseases flourish but natural medicinal cures are lost; a world in which carbon waste accumulates while food sources dwindle; a world of sweltering heat, failing crops and impure water. In the end, we must accept the possibility that we are not immune to extinction. Or, if we survive, perhaps only a few of us will remain, scratching out a grubby existence on a devastated planet. Global warming will seem like a secondary problem when humanity finally faces the consequences of what we have done to nature; not just another Great Dying, but perhaps the greatest dying of them all.

#### HSR’s land usage efficiency can protect the environment

Todorovich, director of America 2050 and assistant visiting professor at the Pratt institute Graduate center for planning and Environment. Schned, associate planner for America 2050 and part-time lecturer at the Edward J. Bloustein, School of Planning and Public Policy at Rutgers university, and Lane, Senior fellow for urban design at Regional Plan association 2011

(Pertra, Daniel, and Robert, September 16, Lincoln Istitute of Land Policy, “High-Speed Rail: nternational Lessons for US Policymakers, <http://www.midwesthsr.org/sites/default/files/pdf/Lincoln_Policy_Institute_HSR_2011.pdf> July 1st, MDRJ)

A typical highspeed rail line has the ability to transport approximately the same number of people in the same direction as a three-lane highway, but on a fraction of the land area. The right-of-way width of a typical two-track high-speed rail line is about 82 feet—onethird the width of a standard six-lane highway (246 feet). This difference in land use amounts to a savings of 24.3 acres per mile of high-speed rail. Such a savings could be particularly signiﬁcant in environmentally sensitive areas that need protection and in urbanized areas where land for highway expansion is costly to acquire (UIC 2010a).

#### HSR protect environmentally sensitive areas – mode shift and efficient land use

Todorovich, Schned, and Lane, **director of America 2050, a national urban planning initiative to develop an infrastructure and growth strategy for the United States senior fellow for urban design at Regional Plan Association and a founding principal of Plan & Process LLP,** 2011

(Petra, Daniel and Robert, 9/16/11, Lincoln Institute of Land Policy, “High-Speed Rail International Lessons for U.S. Policy Makers”, <http://www.midwesthsr.org/sites/default/files/pdf/Lincoln_Policy_Institute_HSR_2011.pdf>, 7/1/12, ML)

Mode shift: Where it is competitive with other intercity transportation modes, high-speed rail can capture a large share of passenger volume. International experience suggests that high-speed rail usually captures 80 percent of air or rail trips, if the travel time by high-speed train is less than two and a half hours (UIC 2010a). Mode shift to rail provides the greatest beneﬁt in regions where road and air capacity is constrained. Safety: High-speed rail systems around the world have experienced excellent safety records. Until a deadly accident in China in July 2011, high-speed rail operations on dedicated tracks had never experienced a single injury or fatality (UIC 2010b). If high-speed rail is built in the United States and meets historic safety standards, one result could be fewer transport-related deaths as more passengers choose rail for intercity travel. Reliability: Dedicated high-speed rail services usually operate at greater frequencies than conventional rail, and have fewer delays and better on-time performance than cars and airplanes. The average delay of a Shinkansen train on the Tokaido line is only 30 seconds (JR Central 2011b). Spain’s AVE provides a full refund to passengers if their train is more than ﬁve minutes late (RENFE 2011). Capacity: By adding capacity to the railway network, high-speed rail can divert a large share of passenger rail service to new, dedicated tracks, thus freeing up capacity on the conventional rail network for freight and other intercity and com- muter rail services. For example, the United Kingdom has chosen to address capacity constraints on its West Coast Main Line with the implementation of the proposed High Speed 2 (HS2) line. In Japan, the main motivation for implementing the Tokaido line between Tokyo and Osaka was to provide additional capacity to the transportation network, rather than to reduce travel times (Givoni 2006). Efﬁcient land use: A typical highspeed rail line has the ability to transport approximately the same number of people in the same direction as a three-lane highway, but on a fraction of the land area. The right-of-way width of a typical two-track high-speed rail line is about 82 feet—onethird the width of a standard six-lane highway (246 feet). This difference in land use amounts to a savings of 24.3 acres per mile of high-speed rail. Such a savings could be particularly signiﬁcant in environmentally sensitive areas that need protection and in urbanized areas where land for highway expansion is costly to acquire (UIC 2010a).

## Solvency

#### HSR decreases traffic and air congestion caused by other transportation systems

Dutzik, Senior Policy Analyst with Frontier Group specializing in energy, transportation, and climate policy, holds an M.A. in print journalism from Boston University and a B.S. in public service from Penn State University, 10

(Tony, 2010, “Why Intercity Passenger Rail?,” *The Right Track: Building a 21st Century High-Speed Rail System for America*, Available Online at <http://americanhsra.org/whitepapers/uspirg.pdf,7/5/12>, ML)

An effective intercity transportation system carries business travelers, tourists, and others reliably and efficiently from one city to another. America relies almost entirely on airplanes and roads for intercity transportation, including trips that could be better served by rail. The lack of effective passenger rail service in much of the country adds to congestion on our roads and in our airports—leading to frustration, delay and large losses to the economy. Over the past three decades, the number of miles driven on U.S. roads has almost doubled.6 Over the same period, traffic congestion has skyrocketed. In 2007, congestion cost the country 4.16 billion hours of lost time. Long-distance trips add to this congestion: the U.S. Department of Transportation estimates that Americans take more than 2 billion trips by car of 50 miles or more annually.7 Similarly, the number of miles Americans travel by plane has more than tripled in the past three decades.8 The resulting crowding of airports and airspace has led to more delays and increasingly frustrated passengers. Air travelers wasted more than 2 million hours in airline delays in 2007, with the problem significantly worse at some of the nation’s most frequently used airports.9 Passenger rail can alleviate congestion on highways and in airports—making all aspects of the transportation system more efficient. The Center for Clean Air [end page 9] Policy and the Center for Neighborhood Technology estimate that building out a national high-speed rail network would reduce car travel by 29 million trips and air travel by nearly 500,000 flights—more flights than currently depart each year from Atlanta’s Hartsfield-Jackson Airport, the nation’s busiest.10 The availability of additional options for intercity travel will become even more important in the years ahead as congestion on roadways and in airports increases. In certain areas of the United States, passenger rail service already plays an important role in easing congestion. When the near-high-speed Acela service was introduced in 2000, passenger rail’s share of the travel between Boston, New York and Washington, D.C., rose dramatically while airlines’ portion fell. In 1999, 18 percent of travelers in the air/rail market between Boston and New York took the train; by 2008, this had risen to 47 percent, with only 53 percent flying.11

#### Building HSR around populated areas and airports generates demand

Oldenburg, affiliated with America 2050 in 11

(Ben Oldenburg on January 11, 2011; affiliated with America 2050; <http://www.america2050.org/pdf/HSR-in-America-Chapter-1.pdf>; accessed July 3) KW

These regional parameters form the basis of our detailed analysis of corridors by megaregion described in the following chapter. It bears noting that given the diversity of spatial development patterns in the United States, any national model will prejudice certain types of regions over others. Research of existing high-speed rail systems around the world suggests that **densely developed cities and regions with transit networks** and intercity travel markets **generate the greatest ridership demand**. However, a counterpoint is that **high-speed rail that connects to airports and park-and-ride facilities is** just as **effective in attracting riders** in auto-oriented regions. While we have not seen evidence of this in European case studies, **such a model has not yet been attempted in the United States**. Regardless of what parameters are weighted most heavily in the model in use, the advantage of the approach presented in this paper is that the weighting and choice of inputs is completely transparent, allowing critical evaluation of whether the investment choices match the intent of public policies.

#### States and privates do not have the funds and have a larger timeframe, feds key to HSR

Kuehn, Associate Partner with Oliver Wyman, Inc., 2011

(Jason, 4/18/11, Oliver Wyman, Inc., “A New Roadmap for High-Speed Rail”, <http://rail.railplanning.com/files/2011/04/20110425-OW-HSR-Commentary-for-Blog_final.pdf>, 7/7/12, CNW)

Critical Success Factors for HSR in the United States What are the critical elements to making HSR successful in the United States?  Capital costs need to be minimized and largely funded by government, at least until critical mass is achieved. As with most large infrastructure projects, there is a risk of cost overruns—the bigger and more greenfield the project, the higher that risk. States are not in a budgetary position to absorb cost overruns. Procuring and upgrading existing rights-of-way is likely to be a far cheaper and faster way to show results than constructing new dedicated HSR lines. Some portions of current routes with high curvature may not be upgradable to HSR standards over time. These areas can be bypassed with segments of newly constructed rights-of-way, but in the interim, service can be started and with growing ridership will come growing support for additional funding for further improvement. This type of incremental support can be seen in some of the criticism of the current program, for not including the Northeast Corridor for funding eligibility.  HSR must be integrated into a larger passenger rail network, with conventional feeder services to/from smaller markets, and commuter rail in the major cities to feed passengers into high-speed corridors. These feeder and commuter services probably will, in many cases, require ongoing operating subsidies. It seems to be generally agreed that these subsidies should be absorbed by the states. While this shows commitment at a local level, fundamentally this will slow down the acceptance of HSR. If the federal government wants to hasten progress, they will also have to underwrite some of the subsidy for commuter and conventional train service development. Under the Passenger Rail Investment and Improvement Act of 2008, the states are already being required to assume responsibility for 100 percent of the operating deficits for existing short-haul (less than 750 miles) corridor trains operated by Amtrak in 2013. Their appetite to absorb new starts, in addition to assuming full responsibility for existing services, is likely to be limited. Without the synergy of feeder services to direct ridership to the HSR corridor, it is unlikely the corridor will draw sufficient ridership to cover operating costs.

#### The role of the federal government is required to manage multistate programs and operations

**TODOROVICH, SCHNED, & LANE 11**

1. director of America 2050, a national urban planning initiative, member of the Board of Advisors of the Eno Transportation Foundation, Masters in City and Regional Planning from the Bloustein School of Planning and Public Policy at Rutgers University 2. associate planner for America 2050 at Regional Plan Association 3. senior fellow for urban design at Regional Plan Association and founding principal of Plan & Process LLP. Loeb Fellow at the Harvard Graduate School of Design

[Petra Todorovich, Daniel Schned, and Robert Lane, High-Speed Rail: International Lessons for U.S. Policy Makers, <https://www.lincolninst.edu/pubs/dl/1948_1268_High-Speed%20Rail%20PFR_Webster.pdf>, September 2011, Lincoln Institute of Land Policy, Policy Focus Report]

The Passenger Rail Investment Improvement Act (PRIIA) is well-suited to support incremental investments in conventional passenger rail corridors, but it does not provide a sufﬁcient policy or management framework to achieve the potential beneﬁts of Core Express high-speed rail. Building on that act, an expanded federal role is needed to plan, prioritize, and commit to investments in high-speed rail and overcome the challenges of managing multistate capital programs and operations. Rather than wait for states to submit applications for federal funding for high-speed rail, the federal government should identify corridors with the greatest chance of meeting its goals and work with the states to secure rights-of-way for implementation. Federal decision makers should prioritize high-speed rail investments in corridors that exhibit regional characteristics that contribute to ridership demand, including population density, employment concentrations, transit connections, existing airline markets, and congestion on parallel road corridors. Federal planners should analyze both the beneﬁts expected to be generated in speciﬁc corridors and the cost estimates for construction and ongoing operations. The respective roles of high-speed Core Express corridors and conventional Regional and Emerging/ Feeder routes need to be clariﬁed, with well-deﬁned objectives for each type of rail service.

# Add ons

## Add on – Oil Dependency:

#### HSR is the key internal link to solve Oil Dependency

Dorsett 10

[Katherine Dorsett, “Is the U.S. turning a corner on high-speed rail?”, CNN, <http://www.cnn.com/2010/TRAVEL/08/18/us.high.speed.rail/index.html>]

The United States Conference of Mayors, American Association of State Highway and Transportation Officials and America 2050 -- a coalition of regional planners, scholars and policy-makers -- back high-speed rail plans. The U.S. High Speed Rail Association is also among the supporters. "Experts in the oil industry have been saying for a number of years now that there is not enough oil left in the ground to continue our current level of consumption, not to mention no way to meet growing demand, and we can expect half as much oil available to us in the next 20 years," said Andy Kunz, president and CEO of the rail association. "If we are to continue economic development and prosperity, we will need to greatly reduce our daily oil consumption, and high-speed rail is the only possible solution that can scale up to meet the growing demand of American mobility while greatly reducing our oil consumption," said Kunz.

#### Scenario 1 is instability

#### Oil dependence leads to climate change which causes terrorism and government instability

Lefton and Weiss 10 1. Researcher for Progressive Media 2. Senior Fellow and Director Climate Strategy at the Center for American Progress

(Rebecca and Daniel, January, “Oil Dependence Is a Dangerous Habit,” Center For American Progress, <http://www.americanprogress.org/issues/2010/01/pdf/unstable_oil.pdf>, 7/8/12, MDRJ)

Meanwhile, America’s voracious oil appetite continues to contribute to another growing national security concern: climate change. Burning oil is one of the largest sources of greenhouse gas emissions and therefore a major driver of climate change, which if left unchecked could have very serious security global implications. Burning oil imported from “dangerous or unstable” countries alone released 640.7 million metric tons of carbon dioxide into the atmosphere, which is the same as keeping more than 122.5 million passenger vehicles on the road. Recent studies found that the gravest consequences of climate change could threaten to destabilize governments, intensify terrorist actions, and displace hundreds of millions of people due to increasingly frequent and severe natural disasters, higher incidences of diseases such as malaria, rising sea levels, and food and water shortages. A 2007 analysis by the Center for American Progress concludes that the geopolitical implications of climate change could include wide-spanning social, political, and environmental consequences such as “destabilizing levels of internal migration” in developing countries and more immigration into the United States. The U.S. military will face increasing pressure to deal with these crises, which will further put our military at risk and require already strapped resources to be sent abroad.

#### Scenario 2 is the Middle East:

#### Building HSR will curb our oil dependency and keep the US out of escalating conflict in the Middle East

Slaughter 11 master's degree in public health microbiologist in Congress now serving her 13th term in Congress

(Louise, 2/11, <http://www.louise.house.gov/index.php?option=com_content&view=article&id=39&Itemid=61>, 7/5/12, MDRJ)

In addition, recent events in the Middle East have again reminded us of how closely tied we are to the oil-rich Middle East to meet our energy needs. This dependency is bad for America’s national security interests, and will only get worse as the world’s oil supply reaches its peak and begins to decline. A national high speed rail system ends our oil dependency quickly and permanently, and prevents our country from being dragged into future struggles to secure oil to meet our energy needs. In addition to our dependence on foreign oil, we face an increasingly urgent climate crisis, with more severe and dangerous storms grinding commerce to a halt, stranding millions, and threatening human life. These storms are just the latest reminder that the benefits of a greener rail system can no longer wait.

# 1AC extensions

## Inherency

### Inherency – Funding

#### Fractured politics and low funding for the northeast prevent HSR

Burns, international journalist and UN correspondent, 11

(Patrick Burns; international journalist and United Nations correspondent; February 1, 2011; “All Aboard for High-Speed Rail”; <http://www.policyinnovations.org/ideas/briefings/data/000194/>; accessed July 2) Kristof

**Political factors in the Northeast are** equally **troubling**. Last fall, **New Jersey**'s cost-cutting **governor** Chris Christie **canceled a** much-**needed rail tunnel that would have connected his state to Manhattan**. **Even if** the **governors** of the Northeast **can keep their eyes on the prize to support** regional **high-speed rail**, undoubtedly **there will be friction at the local level**—among unions, regulators, and landowners. "It often boils down to issues of 'not in my backyard,'" said Kevin Brubaker of the Environmental Law & Policy Center, recalling the heated debate among Connecticut homeowners before Amtrak won authorization to improve service through their state. Experts contend that **there are a few things that may expedite high-speed rail development in the Northeast**. First is a unified, long-term plan on which all sides can agree. Scores of proposals have been prepared by architecture firms, local governments, policy organizations, and rail companies. "The fact that **there is no single vision** yet **for the Northeast corridor makes the federal government nervous about spending money in one place**," said Todorovic of America 2050. It should be noted that **the Northeast received the smallest portion** ($435 million) **of the Recovery Act's** $8 billion in **high-speed rail grants**.

#### Current funding for HSR is insufficient

Todrovich, director of America 2050, Schend, associate planner for America 2050 at Regional Plan Association, and Lane, senior fellow for urban design at Regional

Plan Association,2011

(Petra, Daniel, Robert, “High-Speed Rail International Lessons for U.S. Policy Makers”, <http://www.lincolninst.edu/pubs/1948_High-Speed-Rail>, September 2011, 7/2/12)

The United States has been slow to invest in high-speed rail, but planning and policy making are now being pursued more seriously. In 2009 and 2010, the U.S. Congress appropriated $10.1 billion toward a new, competitive grant program for high-speed rail, and President Barack Obama’s 2012 budget proposal assigns $53 billion over the following six years to begin developing a national high-speed and conventional passenger rail network that could connect up to 80 percent of Americans. Broad support for the program across the country is evident in the 39 states that applied for funding since 2009, yet that support is not universal. Some critics havelabeled it wasteful, lacking focus, or failing to aim for “true” high-speed technology (Laing 2011a). The fledging program has experienced its share of growing pains because the recent $10.1 billion infusion has required simultaneous planning, policy making, and grant administration by the U.S. Department of Transportation Federal Railroad Administration (FRA). The agency has adapted quickly, but these tasks are far outside FRA’s traditional role of enforcing safety regulations on America’s railroads.

#### No funding for HSR

Moore, vice president of research at Reason Foundation, Cox, principal of Wendell Cox Consultancy/Demographia, Vranich, Irvine, Calif.-based business consultant, 2012 (Adrian, Wendell, &Joseph,07-02-2012, Reason, 5 Reasons the California High-Speed Rail Project Shouldn’t Get More Money,http://reason.com/archives/2012/07/02/5-reasons-the-california-high-speed-rail/1, date accessed 7-3-2012,DD)

The California High-Speed Rail Authority says it will need $53 to $62 billion to build the Phase 1 Blended System, which would run from Los Angeles to San Francisco. Sacramento and San Diego appear to have been dropped from the plan. The state currently has the $9.95 billion in taxpayer-backed bonds originally approved by Proposition 1A plus an additional $3.5 billion in federal grants. But where is the remaining $40-$50 billion going to come from? In April, the nonpartisan Legislative Analyst’s Office wrote, “We find that HSRA has not provided sufficient detail and justification to the Legislature regarding its plan to build a high–speed train system. Specifically, funding for the project remains highly speculative and important details have not been sorted out. We recommend the Legislature not approve the Governor's various budget proposals to provide additional funding for the project.” If the state starts building a high-speed train system somewhere between Bakersfield and Fresno it will run out of money well before the system is finished. That’s okay with many train advocates, who figure once construction begins the government will be forced to find the rest of the money to avoid having a partially built $10 billion train to nowhere sitting in the Central Valley. But the legislature can’t afford to be so fiscally reckless. It needs to demand a detailed plan showing how the full rail system will be funded before approving the bond money to start construction.

#### SQ funding is not sufficient for the sustained funding needs to complete a national HSR system

Todorovich, director of America 2050 and assistant visiting professor at the Pratt institute Graduate center for planning and Environment. Schned, associate planner for America 2050 and part-time lecturer at the Edward J. Bloustein, School of Planning and Public Policy at Rutgers university, and Lane, Senior fellow for urban design at Regional Plan association 2011

(Pertra, Daniel, and Robert, September 16, Lincoln Istitute of Land Policy, “High-Speed Rail: nternational Lessons for US Policymakers, <http://www.midwesthsr.org/sites/default/files/pdf/Lincoln_Policy_Institute_HSR_2011.pdf> July 1st, MDRJ)

The current federal policy framework for high-speed rail was shaped in response to both the history of unreliable and minimal federal contributions for passenger rail and the efforts of individual states acting on their own initiative and with their own funding to improve rail corridors. While PRIIA is an improvement over the previous lack of a U.S. passenger rail policy, it is not well-suited to a more ambitious, sustained federal commitment to building dedicated, multistate high-speed rail corridors. Unlike the U.S. highway and transit programs, which rely on dedicated revenue streams from the federal motor fuels tax, passenger rail has no dedicated source of revenue and thus relies on Congress for general fund appropriations. Prior to the passage of PRIIA, most passenger rail appropriations were made directly to Amtrak each year, but with no multiyear authorization since 2002. Numerous Amtrak ofﬁcials have testiﬁed to Congress over the years that the uncertainty of these annual, often politicized, appropriations makes planning and operating the railroad difﬁcult

#### HSR needs reliable federal funding to continue, but it can generate revenue quickly

Todorovich, director of America 2050 and assistant visiting professor at the Pratt institute Graduate center for planning and Environment. Schned, associate planner for America 2050 and part-time lecturer at the Edward J. Bloustein, School of Planning and Public Policy at Rutgers university, and Lane, Senior fellow for urban design at Regional Plan association 2011

(Pertra, Daniel, and Robert, September 16, Lincoln Istitute of Land Policy, “High-Speed Rail: nternational Lessons for US Policymakers, <http://www.midwesthsr.org/sites/default/files/pdf/Lincoln_Policy_Institute_HSR_2011.pdf> July 1st, MDRJ)

Like other modes of transportation and public goods, high-speed rail generally does not pay for itself through ticket fares and other operating revenues. Reliable federal funding is needed for some portion of the upfront capital costs of constructing rail infrastructure, but operating revenues frequently cover operating and maintenance costs. Two well-known examples of highly successful high-speed rail lines—the Tokyo– Osaka Shinkansen and Paris–Lyon TGV—generate an operating proﬁt (JR Central 2010; Gow 2008). German high-speed trains also have been proﬁtable on an operating basis, with revenues covering 100 percent of maintenance costs and 30 percent of new track construction (University of Pennsylvania 2011) Moreover, as long as the HSIPR Program combines funding for both high-speed and conventional rail, federal grants, not loans, will be required to support its initiatives. Since conventional rail services are likely to need continued operating subsidies, it is even more important to secure a federal funding source for capital infrastructure costs. A small but reliable transportation tax for high-speed and conventional passenger rail would demonstrate the federal government’s commitment to a comprehensive rail program, giving states the assurance they need to plan high-speed rail projects and equipment manufacturers the conﬁdence they require to invest in the industry

### Inherency – SQUO Insufficient

#### American Rails are falling apart

The Economist 11

(4/28/11, The Economist, America’s Transport Infrastructure: Life in the Slow Lane,http://www.economist.com/node/18620944, date accessed 7/7/12,DD)

Trains creep out of Washington’s Union Station and pause at intervals, inexplicably, as they travel through the northern Virginia suburbs. In the summer, high temperatures threaten to kink the steel tracks, forcing trains to slow down even more. Riders may find themselves inching along behind a lumbering freight train for miles at a time, until the route reaches a side track on which the Amtrak train can pass. The trip takes six hours, well over twice as long as the London-Paris journey, if there are no delays. And there often are. America, despite its wealth and strength, often seems to be falling apart. American cities have suffered a rash of recent infrastructure calamities, from the failure of the New Orleans levees to the collapse of a highway bridge in Minneapolis, to a fatal crash on Washington, DC’s (generally impressive) metro system. But just as striking are the common shortcomings. America’s civil engineers routinely give its transport structures poor marks, rating roads, rails and bridges as deficient or functionally obsolete. And according to a World Economic Forum study America’s infrastructure has got worse, by comparison with other countries, over the past decade. In the WEF 2010 league table America now ranks 23rd for overall infrastructure quality, between Spain and Chile. Its roads, railways, ports and air-transport infrastructure are all judged mediocre against networks in northern Europe.

#### Passenger rail is failing

Lasshan, Writer for ICFI, 2007

(Jeff, 8/1/07,WSWS, American Passengers Rail System are Plauged with Endemic Delays,<http://www.wsws.org/articles/2007/aug2007/amtr-a01.shtml>, date accesed 7/5/12, DD)

The drive for transportation profits has left passenger rail in the United States nearly stagnant for a half-century. While passenger railways in Europe in Asia operate on dedicated track at speeds over 186 mph (300km/h), there is only one area of electrified, somewhat high speed rail in North America—the Northeast Corridor between Washington D.C. and Boston, Massachusetts. Even here, with a few short exceptions, trains are limited to 135 mph (217km/h), and the lack of funding to repair and upgrade decayed infrastructure causes frequent delays. The electrification of the line was completed in 1935 and many vital aspects, such as power stations, have not been replaced since then. Restrictive tunnels through Baltimore, Maryland, were constructed in 1873; some major bridges are 100 years old; and over 1,300 short urban bridges were built before 1915. Unlike other high-speed corridors worldwide, freight trains still operate over the Northeast Corridor. This practice is notably unsafe, as shown by a 1987 wreck when an Amtrak passenger train ran into freight engines in Chase, Maryland, killing 15 passengers and an engineer. There is also little capacity avaliable—railroad mileage has been severly reduced from around 250,000 miles in 1920 to 140,800 in 2006, with many secondary freight lines abandoned and extra capacity on busier routes reduced.The problems at Amtrak are only a partial reflection of broader problems with the American transportation system as a whole. For most ordinary Americans, day-to-day transportation usually has to be by car, with increasing fuel prices, congestion, and 43,443 traffic deaths in the year 2005 alone. For long-distance travel, flying offers long security waits and on-time performance that is scarcely better than Amtrak. Indeed, the deregulation of the airline industry has led to increased delays and saftey problems.

#### Transportation system failing now

Dutzik, Senior Policy Analyst with Frontier Group specializing in energy, transportation, and climate policy, Kaplan, Analyst with Frontier Group, Baxandall, Federal Tax and Budget Policy Analyst with U.S 10

(Tony, Siena, Phineas,2010, U.S. PIRG Education Fund, “Why Intercity Passenger Rail?,” The Right Track: Building a 21st Century High-Speed Rail System for America, , http://americanhsra.org/whitepapers/uspirg.pdf, Accessed 07-5-2012, DD)

Our current transportation system, unfortunately, does a poor job of connecting residents and workers in the nation’s megaregions. The main highways linking cities within megaregions tend to be congested—think of Interstate 95 in the Northeast or Interstate 5 in the Pacific Northwest or Southern California. Air travel for short trips within a megaregion can be challenging as well. For many short flights, the amount of time that it takes to travel to the airport and go through security can be greater than the amount of time actually spent in flight

#### Metro Trains overrun stops and there have been no changes

Layton, Washington Post Staff Writer, 2006

(Lyndsey, 2/11/06, Washington Post, System to Stop Metro Train Is Detriorating,

<http://www.washingtonpost.com/wp-dyn/content/article/2006/02/10/AR2006021001898.html>, date accessed 7/7/12, DD)

The computerized system that stops Metro trains at station platforms is continuing to deteriorate, and Metro says a solution will take far longer than it had expected. A senior manager at the transit authority said that he misspoke when he told Metro's board of directors last year that he had found the technological fix that would reduce the problem by Christmas and that a solution is a year away. "I thought maybe we could start faster" to install the technological improvements, said P. Takis Salpeas, Metro's deputy general manager for planning and development. In 2005, a record number of trains partially missed their stops, leaving at least one door beyond the platform. Metro officials say overruns are not a safety concern because a separate computer system will not allow one train to get close enough to collide with another. But overruns are a hassle for passengers who can't get off the train at their desired stop and instead must ride to the next station, cross the platform and catch a train in the opposite direction. Metro has been told by the Federal Transit Administration and the National Transportation Safety Board that it needs to fix the problem. Last year, Metro Chief Executive Richard A. White told Salpeas to solve it quickly because the agency was under pressure from the safety board and other fronts. In March, Salpeas announced that he had found the answer: an electronic backup system on the trains. He said overruns would be reduced by the end of the year. But trains overran stations 688 times last year. That was more than the 583 overruns logged in 2004 and more than double the 322 overruns in 1996, when the FTA first told Metro to fix the problem. At that time, the FTA said Metro should pay more attention to overruns. "All station overruns are serious and should be investigated" because operators rely so heavily on the automatic equipment, the FTA report said. Overruns could also signal a safety issue, such as a braking problem. But unlike most rail agencies, Metro had done little to get to the bottom of the problem, the federal agency said. Trains have overrun stations since Metro opened in 1976, but they have been doing it with increasing frequency in recent years.

#### State Infrastructure Now Inadequate – Florida proves

Julian, Research Fellow at Stanford University, Managing Editor of Policy Review, 2010

(Liam, 3-24-10, <http://www.hoover.org/publications/policy-review/article/5296>, 7-3-10, GHK)

Obama was back in the i-4 Corridor in January of this year, on the morning after his State of the Union address. In front of a raucous crowd inside a University of Tampa gymnasium, the president pledged to make central Florida the nation’s high-speed rail pioneer. “We are going to start building a new high-speed rail line right here in Tampa,” he said. “I’m excited. I’m going to come back down here and ride it.”Maybe he will, and maybe he won’t, for the Sunshine State has a long and fraught history with high-speed rail. It goes back more than three decades, beginning in 1976, when the state legislature mandated a transit study that eventually concluded that constructing a high-speed line along the i-4 Corridor would be feasible. In 1982, Governor Bob Graham visited Japan and was impressed by its Shinkansen bullet trains. Upon his return he authorized creation of the Florida High Speed Rail Committee, which subsequently released a report that found the state’s infrastructure inadequate to handle future growth and recommended construction of a high-speed rail line.

#### America is behind in infrastructure and has yet to taste the fruits that HSR offers

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(Pertra, Daniel, and Robert, September 16, Lincoln Istitute of Land Policy, “High-Speed Rail: nternational Lessons for US Policymakers, <http://www.midwesthsr.org/sites/default/files/pdf/Lincoln_Policy_Institute_HSR_2011.pdf> July 1st, MDRJ)

With the exception of the higher-speed Acela Express service operated by Amtrak on the Northeast Corridor, the United States has failed to develop high-speed rail and fully realize its beneﬁts, despite numerous planning studies and aborted attempts to expand rail service in various regions since the 1960s. As a result, most Americans are unfamiliar with high-speed rail and its potential impacts on our cities, regions, and national landscape.

### SQ funding insufficient for freight rail

#### Today’s infrastructure is insufficient for passengers and freight

FRA, The purpose of FRA is to: promulgate and enforce rail safety regulations; administer railroad assistance programs; conduct research and development in support of improved railroad safety and national rail transportation policy, 2009

(April, Federal Railroad Administration, “Vision For High-Speed Rail in America” http://www.fra.dot.gov/downloads/rrdev/hsrstrategicplan.pdf, accessed 7/3/12 MDRJ)

The highway and aviation networks will always remain indispensable elements of the country’s transportation system, and significant investment is needed in those modes to rebuild essential infrastructure and modernize aging technologies. But it is also clear that the existing infrastructure is insufficient to handle the Nation’s future passenger and freight mobility demands. A new approach is needed – one that responds to today’s economic, energy, and environmental challenges

### Inherency – Spending cuts

#### Current spending cuts endanger 46 transportation projects

APTA 11

(APTA – American Public Transportation Association; 2011-9-20; “An Analysis of Proposed U.S. House of Representatives Actions and Their Impact on Public Transportation”; Transportation Research Board database; accessed July 3) Kristof

The **proposed federal funding cuts** would have an impact on public transit agencies’ ability to operate transit service, leading to service cuts for many people who depend on public transit to get around. In small urbanized areas with populations less than 200,000, federal revenue was over one-quarter of all operating expenses. A one-third cut to that revenue **would mean a reduction of service in places with limited public transit** options already. **This would include service cutbacks, elimination of routes, and reduced frequency of service**. In communities across the country, plans to expand services would be jeopardy as a result of this proposal. **A total of 46 major expansion projects in 18 states, projects that would provide transportation into the next century, could be reduced and underfunded**. This could extend a project schedule, reduce the scope of a project or eliminate it.

#### Current spending cuts take away 620,000 jobs in private transportation manufacturing sector

APTA 11

(APTA – American Public Transportation Association; 2011-9-20; “An Analysis of Proposed U.S. House of Representatives Actions and Their Impact on Public Transportation”; Transportation Research Board database; accessed July 3) Kristof

Economist Glenn Weisbrod of the Economic Development Research Group has estimated that **36,000 jobs are** **created and supported per $1 billion of public transportation spending**. **A cut of over $17.2 billion over six years would result in** nearly **620,000 lost jobs** in the public and private sectors. It should be noted that the **majority of these jobs are in the private sector**. **That includes jobs involving public transportation manufacturing,** construction, and operations, jobs at suppliers of transit parts and services, and jobs supported when transportation sector workers spend their wages on goods and servicesfrom the number of jobs supported per $1 billion in transit spending is reported the Economic Impact of Public Transportation Investment.2 That report estimated the number of direct, indirect, and induced jobs created per $1 billion in transit spending under alternative distributions. For the distribution of funding uses for all transit expenditures, 36,000 jobs were supported per $1 billion in expenditure. A job is employment of one person for one year. **Direct jobs are those involving public transportation manufacturing, construction, and operations**. **Indirect jobs are those at suppliers of transit parts and services**. Induced jobs are those that result from direct and indirect job workers re-spending their wages. **As a result of the** $3.53 billion estimated **funding cut to transit in the first year**, 127,000 jobs could be lost. Over the six-year authorization period, **620,000 jobs could be lost**.

#### Current spending cuts lead to thousands of public and private job losses across the transportation sector

APTA 11

(APTA – American Public Transportation Association; 2011-9-20; “An Analysis of Proposed U.S. House of Representatives Actions and Their Impact on Public Transportation”; Transportation Research Board database; accessed July 3) Kristof

With **public transportation agencies already facing budget pressures, the proposed** one-third c**ut in federal public transportation spending would place** even **more strain on transit agencies. Hundreds of thousands of jobs would be lost**, both **at public** agencies **as well as** the **private sector businesses in the transit industry** and beyond. **Thousands of transit vehicles would not be purchased** by agencies, and the **vehicles that remained in service would be less** well **maintained** and more likely to break down. **The effects of this** proposal **would mean** more waiting, less service and fewer options for public transportation riders nationwide and **hundreds of thousands fewer jobs of for Americans**.

### Inherency – Northeast Corridor

#### The North East Corridor rail services are structurally deficient – over 50 billion is needed to restore it, additionally train transport in the NEC is extremely congested

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(Petra Todorovich, Daniel Schned, and Robert Lane; Todorovich and Schned work in leading positions at America 2050, Lane is a senior fellow at Regional Plan Association; 09/16/2011; “High-Speed Rail International Lessons for U.S. Policy Makers”; <https://www.lincolninst.edu/pubs/dl/1948_1268_High-Speed%20Rail%20PFR_Webster.pdf>)

**The** 455-mile **Northeast Corridor (NEC**) between Boston and Washington, DC, **is America’s most intensively used rail line**, and one of the most heavily traveled corridors in the world, carrying an estimated 260 million rail passengers per year. Eight different commuter railroads and Amtrak’s intercity services share the corridor. Intercity rail passengers on Amtrak’s Acela Express and Northeast Regional services account for approximately 13 million annual passengers, which is 45 percent of Amtrak’s total U.S. intercity ridership (Amtrak 2010a; 2011a). **Demand for** both commuter and intercity **rail services on the corridor is expected to grow as gas prices rise and travelers seek transport alternatives to the automobile**. Since November 2009, Amtrak has seen 20 consecutive months of ridership growth and is on pace to set an annual ridership record in 2011 (Amtrak 2011c). Amtrak anticipates that **by 2030 ridership will grow 59 percent** and train movements 38 percent on the Northeast Corridor (Amtrak 2010b). Despite the Northeast Corridor’s vital role in sustaining mobility in the Northeast Megaregion and supporting a robust intermodal transportation network, several issues undercut its potential for expansion (Amtrak 2010b). · Condition: Although billions of dollars have been spent in recent years to improve the rail corridor, **many long stretches have deficient or outmoded tracks, bridges, power, communications, and other systems that need to be upgraded**. **The** whole **corridor has an estimated backlog of $8.8 billion to achieve** a state of **good repair, and an additional $43.5 billion is needed to** maintain facilities, replace aging assets, and e**xpand the corridor’s capacity and reliability through 2030** (Amtrak 2011b). · Congestion: Several key segments of the corridor operate at 100 percent capacity. **Minor** operating **problems** **often cause severe congestion and delays, and repairs** on other segments of the corridor also **cause backups throughout the system**. · Divided ownership and dispatching: While most of the corridor is owned by Amtrak, segments in Massachusetts, Connecticut, and New York are owned by those states’ transportation departments. Trains dispatched from New Rochelle, New York, to New Haven, Connecticut, for example, are controlled by MetroNorth Railroad, which prioritizes its commuter trains in this territory. As a result, Amtrak trains must operate at slower speeds in this segment of the corridor. In addition, **agreements with the maritime community limit the number** **of** Amtrak **trains that can cross** coastal **bridges in Connecticut to 17 per day in each direction**, or just over one train per hour (de Cerreño and Mathur 2006).

#### HSR in the Northeast Corridor needs federal funding

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(Pertra, Daniel, and Robert, September 16, Lincoln Istitute of Land Policy, “High-Speed Rail: nternational Lessons for US Policymakers, <http://www.midwesthsr.org/sites/default/files/pdf/Lincoln_Policy_Institute_HSR_2011.pdf> July 1st, MDRJ)

Both California and the Northeast Corridor present strong cases for investment in high-speed rail in their large and growing economies. However, the path to realizing that vision is not yet clear. It will require securing reliable funding commitments based on credible evidence that beneﬁts exceed costs. Without federal support, these and other regional high-speed rail projects are unlikely to secure the necessary state and private funding commitments needed to proceed.

#### Only the north-east corridor is suitable for new high speed rail projects

Jandt 10

(Jandt, Fred; 2010-12; Mass Transit magazine, Volume: 36 Issue Number: 8 pp 8-16; Transportation Research Board database; accessed July 3) Kristof

Amtrak president Joe Boardman tells us that America needs a national passenger rail system and that Amtrak is that system. Every part of the United States should be connected by rail regardless of the inevitable problems that come with trying to keep a schedule. **The Northeast Corridor with 40 million people living within 40 miles of** its **tracks has sufficient population density to support high speed rail**, but the US may not make the necessary investment. **Rail receives disproportionately low federal resources** as compared to other modes of transportation. **The switch from conventional to high-speed rail is costly due to the need for electrification** and to remove all at-grade crossings; **only the Northeast Corridor is electrified**. A switch to true high-speed rail would require trains skipping stops to create an express service.

### Inherency – Neglect

#### The US has neglected infrastructure for too long

APTA, American Public Transportation Association, 2012

(American Public Transportation Association, January 2012, “An Inventory of the Criticisms of High-Speed Rail With Suggested Responses and Counterpoints”, <http://www.apta.com/resources/reportsandpublications/Documents/HSR-Defense.pdf>, 7/3/12, ML)

It is sad that for more than two decades our nation has turned its back on its infrastructure, most notably its transportation system. What was once the envy of the world is now an international embarrassment. We have gone from having a super-efficient transcontinental network of interstate highways, world-class freight railroads, the safest commercial aviation system, and a promising, newly reborn intercity passenger rail to a crumbling mass of congested asphalt and bridges; an aviation system so taxed that Congress felt compelled to pass a law recently directing how long passengers could be held hostage by airlines as their planes waited to take off; and still just the hope for a better day for intercity passenger rail. But rather than recognize this as a time to invest and rebuild the nation’s transportation infrastructure, thereby promoting job creation and stimulating the economy, opponents of intercity and high-speed rail have decided that the nation cannot afford this timely and much needed infrastructure investment.

## Solvency

### Solvency – Feasibility

#### HSR tech feasible through any conditions—Colorado Proves

Rocky Mountain Rail Authority, 10

(Rocky Mountain Rail Authority, Executive Summary on High Speed Rail Feasibility Study, March, 2010, <http://www.infrastructureusa.org/wp-content/uploads/2010/04/rmraexecutivesummary-final.pdf>, accessed 7-5-12 BLE)

The Rocky Mountain Rail Authority (RMRA), a multi-jurisdictional government body comprised of more than 50 Colorado cities, towns, counties and transit authorities, has determined that, based on Federal Railroad Administration (FRA) criteria, high-speed rail is feasible in Colorado’s I-70 and I-25 corridors. The FRA considers trains capable of reaching speeds greater than 90 mph high-speed rail. Colorado has a unique transportation challenge. Our mountain resorts and metropolitan areas play a special role as national and international attractions. The vast majority of the state’s commercial and recreational centers are connected by just two major highways, I-70 and I-25. Traffic congestion is increasing in both corridors, impeding travel during weekdays on I-25 and weekends on I-70. This study evaluated the I-70 corridor from Denver International Airport (DIA) to Grand Junction. I70 serves as a gateway to more than twenty world-class recreation resorts including Aspen/Snowmass, Beaver Creek, Breckenridge, Copper Mountain, Keystone, Steamboat Springs and Vail. Central City and Blackhawk have formed a multi-casino complex that attracts large numbers of visitors every year. The topography of the corridor creates unique transportation challenges – challenges that can be hampered by unpredictable weather and travel patterns year round. The study evaluated the I-25 corridor from Cheyenne, WY to Trinidad, CO, passing through the metropolitan areas of Fort Collins, Denver, Colorado Springs and Pueblo along the way. I-25 connects Colorado’s growing metropolitan areas along the Front Range. These communities comprise rapidly growing cities and towns with significant commercial and recreational centers. As a result, the I-25 and I-70 corridors not only have the conventional intercity travel patterns of business, commuter and social trip making, but their demand is overlaid by very-substantial, highly focused flows of local communities along I-25 and out-of-state tourists from DIA to the resorts and vacation spots along both the I-70 and I-25 corridors. All of this combines to challenge Colorado’s transportation infrastructure in both corridors. The 18-month feasibility study, conducted with significant financial and technical support from the Colorado Department of Transportation (CDOT), focused on determining whether options exist that are capable of meeting FRA technical, financial and economic criteria for high-speed rail feasibility. The study considered a full range of technology options from conventional Amtrak service (with maximum speeds of 79 mph) through high-speed train and magnetic levitation technologies that have maximum speeds of up to 300 mph. It also evaluated a comprehensive set of possible corridors including highway routes, existing and abandoned rail routes, and completely new Greenfield routes. General station locations were also evaluated based on potential market-demand and existing local planning efforts.

#### Technologically feasible – Japan proves

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(Petra, Daniel, and Robert, September, 16, Lincoln Institute of Land Policy, “High-Speed Rail: International Lessons for US Policymakers

<https://www.lincolninst.edu/pubs/dl/1948_1268_High-Speed%20Rail%20PFR_Webster.pdf>, July 1, BLE)

Since the 1964 inauguration of Japan’s first Shinkansen bullet train connecting Tokyo to Osaka, commercial high-speed rail lines have been constructed in 14 countries. Together these lines provide billions of passenger trips, save many hours of travel time, and provide an exceptional level of safety. Now considered a well-established and proven technology, high-speed rail continues to offer benefits to the nations and regions it serves. This reliable, rapid, and safe ground transportation system offers increased regional mobility and accessibility reduces fuel use, saves energy, regenerates cities and regions, and increases economic productivity. At least 19 countries around the world are building or planning new high-speed rail lines (UIC 2011). China has invested several hundred billion dollars in building the world’s most extensive high-speed rail system by 2012 (Bradsher 2010). Several oil- and gas-producing states in the Middle East are planning to spend billions of dollars on high-speed rail systems linking that region (Independent Online 2011). In Saudi Arabia, construction has already begun on a 276-mile high-speed rail line connecting the Islamic holy cities of Medina and Mecca via Jeddah, and the French engineering group Alstom has announced preliminary plans to build a high-speed rail line connecting Baghdad and Basra in Iraq (Telegraph 2011). Within the European Union system Spain is constructing some 1,500 miles of high-speed rail lines, France is planning more than 2,500 miles of new high-speed rail lines, and England has proposed the second phase of its national high-speed rail network.

#### Many current feasible options for HSR tech

TEMS (Transportation Economics & Management Systems, Inc.), 03

(Transportation Economics & Management Systems, INC., January 2003, “Rochester Rail Link Feasibility Study”, <http://www.dot.state.mn.us/passengerrail/onepagers/rochesterstudy.pdf>, accessed 7-5-12 BLE)

North American passenger train operators have benefited from the extensive global technology development as railways around the world have upgraded their passenger systems to high-speed rail operations. Over the past year, true domestic high-speed rail has become a reality with the introduction of Amtrak’s Acela technology in the Northeast. The electric-powered Acela, specifically designed to meet US DOT equipment standards, is being further developed into the American Flyer fossil-fueled option. The technology is undergoing further advancement through the development of the Advanced Turbine Locomotive, a gas turbine capable of speeds of 150+ mph. Given these developments, a wide array of equipment choices is available for this corridor. However, two basic characteristics of each equipment type need to be considered: propulsion system technology and tilting design. Each of the technologies is described in the paragraphs below. Gas-turbine technology, popular in a variety of applications including marine propulsion, has seen limited use in rail systems due in part to potentially higher fuel consumption rates in comparison to diesel-electrics. This is changing with the current development of this technology, which has advanced dramatically in recent years with its use in both helicopters and fast ferries. As a result, the American Flyer/Advanced Turbine Locomotive offers higher commercial speeds (150+ mph) and acceleration rates than diesel-electrics, making it more suitable for high-speed passenger service. In the future, this technology may also feature flywheels and other energy storage systems that will make the unit more energy efficient. Electric propulsion uses either AC or DC electric power fed directly to the train through either an overhead wire catenary system or a surface-mounted third rail. Typically, high-speed systems use high voltage AC overhead catenary systems. The advantage of electric power is that it can provide very high peak power inputs, allowing for rapid acceleration rates and high maximum speeds. All systems in operation with commercial speeds in excess of 150 mph use electric power for this reason.

#### HSR feasibility studies show positive economic growth—Canada proves

Geofrroy, 11

(Carl, Writer for Transport Canada, 11-14-11, “Updated Feasibility Study of a High Speed Rail Service in the Québec City – Windsor Corridor”, <http://www.tc.gc.ca/eng/policy/acg-acgb-high-speed-rail-2956.htm>, accessed 7-7-12 BLE)

The feasibility study for a high speed rail service (HSR) in the Quebec City – Windsor Corridor was conducted on behalf of Transport Canada, the Ministry of Transportation of Ontario and the Ministry of Transportation of Quebec by EcoTrain, a group of international consulting firms led by Dessau and comprising Deutsche Bahn International, KPMG, MMM Group, and Wilbur Smith Associates. The joint study included an assessment of high speed train technologies; potential routings; traffic forecasts; financial and economic (cost-benefit) analyses. The study also evaluated socioeconomic, environmental and transportation system impacts of developing high speed rail. The study evaluated two technologies based on speeds of 200 kilometres per hour (km/h) using diesel traction and 300 km/h using electric traction. It further identified potential routes to accommodate each of the 200 and 300 km/h technologies including stations at Quebec City, Trois-Rivières, Montreal, Ottawa, Kingston, Toronto, London and Windsor. The financial analysis considered a government financing case (wholly public) and a partly private sector-funded case (private sector). The total development costs in 2009 dollars for the full Quebec City – Windsor Corridor are estimated to be between $18.9 billion for the 200 km/h technology and $21.3 billion for the 300 km/h technology. Developing the section between Montreal-Ottawa-Toronto could cost between $9.1 for 200 km/h and $11 billion for 300 km/h. The main findings from the financial analysis for both the public case and the private sector case for the full Quebec City – Windsor Corridor indicate that while the project could cover all operating costs, governments would need to contribute significantly to the project development cost and receive no financial return on investment. The economic analysis assessed the viability of the project and its contribution to the economy as a whole by taking into account non-financial costs and benefits, such as changes in atmospheric emissions, public safety improvements and impact of HSR on transportation operators within the corridor. From the point of view of the Canadian economy as a whole, the economic analysis showed that HSR between Quebec City and Windsor would generate a positive net economic benefit.

#### HSR feasible in the US & is the only option left

**Miller, 12**

(Francis, January 2012, “High Speed Rail in the US: From Concept to reality”, <http://www.ushsr.com/images/HighSpeedRailF_Miller-Draft_1_.pdf>, accessed 7-12-12 BLE)

Both transit professionals and politicians believe now is the time. Momentum and support to build high speed rail have never been greater. With traffic congestion increasing and reduced funding available to maintain wear and tear on the highway systems, taking passenger automobiles off the roads to allow trucks more capacity just might be the right solution, right now. From 1980 to 2006, the number of miles travelled by car and truck increased by 95 percent and 106 percent respectively while lane expansion grew only 4.4 percent. There is no more room to build more roads, and building or adding more lanes to our congested (Level of Service F) roads does not solve the problem. Likewise, the nations skyways have reached capacity. The federal government has designated 10 corridors for highspeed rail development, not including the Northeast Corridor.

### Solvency – Funding

#### HSR is time-competitive and reduced time in security lines make it desirable.

Peterman, Analyst in Transportation Policy, Frittelli , Specialist in Transportation Policy, Mallett, Specialist in Transportation Policy, 2009

(David, John, William, December 8th, Congressional Research Service, “High Speed Rail (HSR) in the United States“ <http://www.dtic.mil/cgi-bin/GetTRDoc?AD=ADA511142> July 2nd MDRJ)

Many of HSR’s potential customers are likely to be current air travelers. Despite an airplane’s speed advantage, HSR can be time-competitive with an airplane if distances between cities are less than about 400-500 miles. This is not sufficient distance for an airplane to exploit its speed advantage because the travel time to and from the train stations (which are often located in the central area of large cities) for many passengers may be less than travel time to and from the airports (which are often located in the suburbs), assuming that a traveler’s ultimate destination is in the downtown area. Also, security screening and pre-boarding wait times generally are significantly longer for air travelers than they are for train riders, as is claiming checked baggage, if applicable. 79 Amtrak has been competitive with the airlines between certain cities along the Northeast Corridor. Slightly more people take the train than fly between Washington, DC, and New York City (a distance of about 240 miles, which Amtrak’s Acela covers in around 2 hours 50 minutes) and slightly fewer take the train than fly between New York City and Boston (a distance of about 210 miles, which the Acela covers in about 3 hours and 30 minutes)

#### 15 cent gas tax, oil tax, or VMT fee would pay for the affirmative

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(Pertra, Daniel, and Robert, September 16, Lincoln Istitute of Land Policy, “High-Speed Rail: nternational Lessons for US Policymakers, <http://www.midwesthsr.org/sites/default/files/pdf/Lincoln_Policy_Institute_HSR_2011.pdf> July 1st, MDRJ)

While passage of the American Recovery and Reinvestment Act in 2009 marked a new period of federal funding for highspeed and passenger rail, the elimination of funds for the HSIPR Program in the FY 2011 budget underscores the need for a sustainable revenue source to ensure long-term success. Such a commitment will not be possible with unpredictable appropriations, which have ranged widely from $8 billion in 2009 to negative $400 million in 2011. The need to ﬁnd a long-term solution for the nation’s transportation funding presents the opportunity to address existing surface transportation needs and high-speed and passenger rail at the same time. When Congress addresses the current shortfall in transportation funding, it should also dedicate funding for passenger rail, such as by raising the gas tax by 15 cents and directing several cents to rail, or considering new approaches entirely—such as an upstream oil tax or VMT fee.

#### Several ways for the USFG to solve HSR

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(Pertra, Daniel, and Robert, September 16, Lincoln Istitute of Land Policy, “High-Speed Rail: nternational Lessons for US Policymakers, <http://www.midwesthsr.org/sites/default/files/pdf/Lincoln_Policy_Institute_HSR_2011.pdf> July 1st, MDRJ)

In recent years, Congress has addressed the funding shortfall with short-term ﬁxes by transferring general fund revenues to the highway trust fund. However, the need to ﬁnd a long-term solution presents the opportunity to address existing surface transportation needs and high-speed and passenger rail all at once. At some point in the near future, Congress must address the shortfall in national transportation funding. At that time legislators could also dedicate revenues for high-speed and passenger rail as part of the surface transportation program, generated by a variety of small increases or reallocations of current transportation-related fees to provide at least $5 billion in annual funds. Several proposals are currently being considered. • Raise the gas tax by 15 cents a gallon (The National Commission on Fiscal Responsibility and Reform, 2010) or more. Each additional cent of gas tax generates approximately $1.4 billion annually (AASHTO 2011). Several cents could be devoted to passenger rail. • Add a $1 surcharge on current passenger rail tickets to produce approximately $29 million annually (Amtrak 2011d). Though this is a relatively small amount of revenue, it could become an important source of funds for expanding and maintaining the system as passenger rail ridership grows. • Or, shift from a national gas tax to a percentage tax on crude oil and imported reﬁned petroleum products consumed in the United States to fund all the nation’s transportation needs (RAND Corporation 2011). RAND estimated that an oil tax of 17 percent would generate approximately $83 billion a year (at midsummer 2010 prices of $72 per barrel). Five billion dollars of this amount could be dedicated to passenger rail.

#### TIFIA could fund HSR

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(Pertra, Daniel, and Robert, September 16, Lincoln Istitute of Land Policy, “High-Speed Rail: nternational Lessons for US Policymakers, <http://www.midwesthsr.org/sites/default/files/pdf/Lincoln_Policy_Institute_HSR_2011.pdf> July 1st, MDRJ)

Two existing federal loan programs for transportation also could be expanded for high-speed rail ﬁnancing. The Transportation Infrastructure Finance and Innovation Act (TIFIA) provides long-term loans and credit assistance through the U.S. Department of Transportation to ﬁnance large infrastructure projects with dedicated revenue sources that allow repayment. The program is designed to leverage private co-investment, and can cover up to 33 percent of the project costs (U.S. DOT 2011b). TIFIA could encourage even greater private investment if the program were enhanced to increase the maximum funding allowed to reﬂect current demand; permit more ﬂexibility in the project costs that can receive funding; and offer a simpliﬁed application and review process (Yarema 2011). These enhancements would be beneﬁcial for funding high-speed rail since the costs are large and lead times are already long, even before the time for required review processes is added.

#### The RRIF could fund HSR

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(Pertra, Daniel, and Robert, September 16, Lincoln Istitute of Land Policy, “High-Speed Rail: nternational Lessons for US Policymakers, <http://www.midwesthsr.org/sites/default/files/pdf/Lincoln_Policy_Institute_HSR_2011.pdf> July 1st, MDRJ)

The Railroad Rehabilitation and Improvement Financing (RRIF) Program provides direct federal loans and loan guarantees to ﬁnance the development of railroad infrastructure. It is beneﬁcial for high-speed rail because it can supply direct loans for up to 100 percent of project costs, with repayment periods up to 35 years and low interest rates locked in for the life of the loan term. To date, the program has been utilized primarily by small and medium-sized private railroads (U.S. DOT 2011c). Rail advocates have suggested modifying the stringent collateral requirement and credit risk premiums to make RRIF work for high-speed rail, as well as making high-speed rail’s eligibility explicit in the criteria (AHSRA 2011b).

### Solvency – Core Express

#### Core Express HSR solves best and has the ability to access federal funds

Todorovich, director of America 2050 and assistant visiting professor at the Pratt institute Graduate center for planning and Environment. Schned, associate planner for America 2050 and part-time lecturer at the Edward J. Bloustein, School of Planning and Public Policy at Rutgers university, and Lane, Senior fellow for urban design at Regional Plan association 2011

(Pertra, Daniel, and Robert, September 16, Lincoln Istitute of Land Policy, “High-Speed Rail: nternational Lessons for US Policymakers, <http://www.midwesthsr.org/sites/default/files/pdf/Lincoln_Policy_Institute_HSR_2011.pdf> July 1st, MDRJ)

According to the U.S. Department of Transportation, the “FRA’s vision for a national high-speed rail program is to develop tiered passenger rail corridors that take into account the different markets and geographic contexts found throughout the United States” (U.S. DOT 2010, 10). This is consistent with the recommendation in this report that investments in Core Express corridors be directed toward the largest markets in the country, where population density and congestion on competing modes of transportation justify the level of investment in dedicated high-speed rail. Lesser investments in Regional or Emerging/ Feeder corridors could serve smaller networks of metropolitan regions and emerging markets, using an incremental approach to making improvements over time. Under these deﬁnitions, the planned California high-speed rail system is the only project awarded a federal grant to date that is designed to be a Core Express service with top speeds of 220 mph on new, dedicated tracks. The existing Acela Express service in the Northeast Corridor currently meets the FRA’s deﬁnition of Regional service, though plans for the Northeast Corridor would bring the service up to Core Express (see chapter 5). Most other passenger rail services operating on freight rights-of-way in the United States fall into the category of Emerging/Feeder service. Shared Passenger and Freight Corridors While Core Express corridors are expensive to plan and construct, they avoid conﬂicts with freight operations and allow trains to run at top speeds. Conventional, shared passenger rail corridors face the challenge of balancing passenger and freight service on tracks owned primarily by private freight railroads. Some freight railroads have raised concerns about expanding passenger rail service on their networks, fearing it will limit their ability to expand freight operations in the future

### Solvency – Maglev

#### Maglev allows HSR to travel at exponentially higher rates than before

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(Pertra, Daniel, and Robert, September 16, Lincoln Istitute of Land Policy, “High-Speed Rail: nternational Lessons for US Policymakers, <http://www.midwesthsr.org/sites/default/files/pdf/Lincoln_Policy_Institute_HSR_2011.pdf> July 1st, MDRJ)

Two of the most notable high-speed rail technologies developed over the last few decades are known as a tilting mechanism and magnetic levitation (maglev). In regions where high-speed trains must run on the conventional rail network, sharp curves can create centrifugal forces that cause signiﬁcant discomfort to passengers. To solve this problem, rail engineers developed a mechanism that counteracts these forces by slightly tilting the trains as they slow down to enter the curves. Many Swedish and Italian high-speed trains, as well as Amtrak’s Acela Express and Cascades services, use this tilting technology while running on conventional tracks. This alternative avoids the high costs of constructing new, dedicated high-speed tracks in areas without sufﬁcient demand to justify such an investment (Givoni 2006). Maglev technology is completely different from traditional steel-wheel-on-steel-rail technology. It involves using an electromagnetic force stored in very powerful magnets embedded in the guideways and underbody of the trains that cause the train to hover and propel it forward at extremely high velocities. Test maglev trains in Japan have achieved speeds over 360 mph (Takagi 2005). This dedicated track technology means that maglev trains are incompatible with other passenger and freight rail tracks, and conventional and freight trains are incompatible with the maglev guideways. China is currently the only country with an existing maglev train in commercial operation

#### Maglev allows trains to go faster and requires less maintenance

Peterman, Analyst in Transportation Policy, Frittelli , Specialist in Transportation Policy, Mallett, Specialist in Transportation Policy, 2009

(David, John, William, December 8th, Congressional Research Service, “High Speed Rail (HSR) in the United States“ <http://www.dtic.mil/cgi-bin/GetTRDoc?AD=ADA511142> July 2nd MDRJ)

Maglev train technology was developed in the United States in the 1960s. It uses electromagnets to suspend (levitate) the train above a guideway, as well as to propel the train. By eliminating contact (and hence friction) between the train and the guideway, maglev trains can go very fast, and the trains and tracks are expected to experience less wear and tear, thus reducing maintenance costs, though there is not enough experience with maglev in commercial operations to verify this.

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### Solvency – Cities

#### HSR should be developed in four largest cities

Hagler, Associate Planner of America 2050, Todorovich, Director of America 2050,2009 (Yoav & Petra,9-17-2009, America 2050,Where High-Speed Rail Works Best, <http://www.america2050.org/2009/09/where-high-speed-rail-works-best.html>, date accessed 7-3-2012,DD)

The six criteria described above were used to create an index that ranked 27,000 city pairs on their suitability, based on potential market demand, to act as origin and destination nodes of one leg of a high-speed rail corridor. 14 The top 50 pairs in the index are shown below. The top 50 city pairs identified were primarily concentrated in the Northeast, California, and the Midwest. The results of the ranking were also used to inform America 2050’s suggested prioritization of corridors for the development of high-speed rail networks, which also takes into account the concentration of high-ranking city pairs in one megaregion, the progress of high-seed rail planning in those regions, and local political support. It is no surprise that the nation’s four largest cities (New York, Los Angeles, Chicago, and Houston) are all represented near the top of the list as part of city pairs with potential demand for high-speed rail. These are the places that not only contain a critical mass of population to support these systems, but also a large percentage of the nation’s economic productivity, existing travel markets, and metropolitan congestion. The New York to Washington, D.C. market was the top pair of the 27,000 pairs analyzed. 15 In many ways this city pair typifies the ideal corridor for high-speed rail and shares similar attributes with successful existing corridors around the word. Population density in the Northeast Megaregion is higher than anywhere else in the nation, is higher than almost anywhere in Europe, and is similar to densities in Japan. Both cities have extensive transit and regional rail systems to complement intercity rail traffic. Both cities have productive economies and have an extensive existing travel market. And the two cities are separated by just over 200 miles with two major cities in between, Philadelphia and Baltimore. This corridor shares many of the characteristics with the most successful (in term of ridership) high-speed rail corridor in the world, Tokyo to Osaka, which is similar in distance, density, existence of supportive transit systems, and major intermediate cities, Nagoya and Kyoto. Although one Texas city pair made it into the top ten in the index (Dallas-Houston), the other major connections in the Texas Triangle are further down on the list (Austin-Dallas: 45th; Austin-Houston: 54th; Houston-San Antonio: 56th: Dallas-San Antonio: 70th). These corridors tended to be ranked lower than the city pairs in California (six California city pairs were ranked in the top 25) and the Midwest (with city pairs including Chicago, Detroit, Columbus, Cleveland, and Pittsburgh), which all appeared multiple times in the top 50 pairs. Although these Texas corridors scored well in overall population, length of corridor, and economic activity, the lack of (or limited) existing local and regional transit systems in these cities reduced their overall rankings. City pairs with at least one city with local transit and commuter rail systems tended to populate the top 100 city pairs. Corridors which included two such cities including New York, Washington, Philadelphia, Los Angeles, and San Francisco all can be found in the top 10.

### Solvency – Demand

#### Demand is high in the Northeast corridor

Sustainable Business 11

(01/19/2011; “Study Identifies Best U.S. High-Speed Rail Corridors”; SustainableBusiness.com News; <http://www.sustainablebusiness.com/index.cfm/go/news.display/id/21735>; accessed July 3)

Corridors connecting populous regions with large job centers, rail transit networks, and existing air markets scored best. The study also recommends that the federal government adopt a quantitative approach to evaluating future investment in high-speed rail. The 56-page **study**, entitled, “High-Speed Rail in America,” **cites ridership potential as the number one factor in determining if a corridor is suitable for investment, identifies** the **specific conditions that generate ridership demand**, and scores each corridor according to strength in those areas. The **top performing corridors** in each region determined **to have the greatest** potential **demand for high-speed rail ridership include** corridors, such as: **New York-Washington, DC; Chicago-Milwaukee; Los Angeles-San Diego; Tampa (via Orlando) to Miami; Dallas-Houston; Atlanta-Birmingham; Portland-Seattle; and Denver-Pueblo**. **Scoring** was **based on factors that have contributed to rail ridership in other systems around the world**: regional and city population size and density, employment concentrations, rail transit accessibility, air travel markets, and the composition of job markets by sector. Based on the analysis, **the report proposes that the federal government adopt a similar approach to** evaluating where to **invest** future dollars and calls for prioritizing investments **where** the potential for **ridership demand is greatest**.

#### Building HSR around populated areas generates demand

Oldenburg, affiliated with America 2050 in 11

(Ben Oldenburg on January 11, 2011; affiliated with America 2050; <http://www.america2050.org/pdf/HSR-in-America-Chapter-1.pdf>; accessed July 3)

These regional parameters form the basis of our detailed analysis of corridors by megaregion described in the following chapter. It bears noting that given the diversity of spatial development patterns in the United States, any national model will prejudice certain types of regions over others. Research of existing high-speed rail systems around the world suggests that **densely developed cities and regions with transit networks** and intercity travel markets **generate the greatest ridership demand**. However, a counterpoint is that **high-speed rail that connects to airports and park-and-ride facilities is** just as **effective in attracting riders** in auto-oriented regions. While we have not seen evidence of this in European case studies, **such a model has not yet been attempted in the United States**. Regardless of what parameters are weighted most heavily in the model in use, the advantage of the approach presented in this paper is that the weighting and choice of inputs is completely transparent, allowing critical evaluation of whether the investment choices match the intent of public policies.

#### HSR would provide to 80% of Americans by 2026

Jones, 11

(Charisse, USA Today writer, 2-15-11, “High-speed train system has a long way to go”, <http://travel.usatoday.com/news/2011-02-15-businesstravel15_ST_N.htm>, accessed 7-7-12 BLE)

The money would further Obama's vision of providing high-speed train access to 80% of Americans in 25 years. Vice President Biden trumpeted the initiative last week at a historic train station in Philadelphia, and the administration previously allotted $10.5 billion for rail projects from California to Florida that it says will create thousands of jobs, relieve congestion and improve the nation's ability to compete with countries where trains surging over 160 mph are the norm. But the plans have met resistance from Republican lawmakers. GOP members of the House voted last week to eliminate $1 billion in funding for high-speed rail in this year's budget. And in response to Obama's proposed budget for 2012 on Monday, Senate GOP leader Mitch McConnell said that "we don't have the money" to pay for "trains and windmills."

#### HSR is time-competitive and reduced time in security lines make it desirable.

Peterman, Analyst in Transportation Policy, Frittelli , Specialist in Transportation Policy, Mallett, Specialist in Transportation Policy, 2009

(David, John, William, December 8th, Congressional Research Service, “High Speed Rail (HSR) in the United States“ <http://www.dtic.mil/cgi-bin/GetTRDoc?AD=ADA511142> July 2nd MDRJ)

Many of HSR’s potential customers are likely to be current air travelers. Despite an airplane’s speed advantage, HSR can be time-competitive with an airplane if distances between cities are less than about 400-500 miles. This is not sufficient distance for an airplane to exploit its speed advantage because the travel time to and from the train stations (which are often located in the central area of large cities) for many passengers may be less than travel time to and from the airports (which are often located in the suburbs), assuming that a traveler’s ultimate destination is in the downtown area. Also, security screening and pre-boarding wait times generally are significantly longer for air travelers than they are for train riders, as is claiming checked baggage, if applicable. 79 Amtrak has been competitive with the airlines between certain cities along the Northeast Corridor. Slightly more people take the train than fly between Washington, DC, and New York City (a distance of about 240 miles, which Amtrak’s Acela covers in around 2 hours 50 minutes) and slightly fewer take the train than fly between New York City and Boston (a distance of about 210 miles, which the Acela covers in about 3 hours and 30 minutes)

#### Demand for HSR is high

American Public Transportation Association 2011

(February, The Case for Business Investment in high-speed and Intercity Passenger Rail, <http://www.apta.com/resources/reportsandpublications/documents/HSRPub_final.pdf>)

The overall rail passenger market in the United States is growing at an impressive rate, sustained by a multi-decade trend. The scale of this growing market is reaching the critical mass that will make the market for vehicle procurements and state-of-good-repair investments strong and consistent year in and year out. Market growth can be measured in a number of ways. Of the 35 light rail systems in existence today, only seven were present in 1980. Of the 28 commuter rail systems today, only 10 were in operation in 1980. Ridership on commuter rail, light rail, and heavy rail grew from 2.627 billion trips in 1995 to 4.513 billion trips in 2008, an increase of 72 percent. Despite chronic underinvestment, annual passenger trips aboard Amtrak have risen from 21 million in 2000 to 28.7 million in 2010, a 37 percent increase. In 2010, annual passenger trips were at their highest level ever.1

### Solvency – Congestion

#### Highways and Airway are congested now. HSR is the best way to decongest traffic

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(Pertra, Daniel, and Robert, September 16, Lincoln Istitute of Land Policy, “High-Speed Rail: nternational Lessons for US Policymakers, <http://www.midwesthsr.org/sites/default/files/pdf/Lincoln_Policy_Institute_HSR_2011.pdf> July 1st, MDRJ)

Signiﬁcant investments in the U.S. Interstate Highway System since the 1950s initially produced excess surface transpor- tation capacity, but congestion is now common on many highway sections, particularly in and around major metropolitan areas. The federal government has also subsidized the aviation industry, but has lacked a comparable federal commitment to funding passenger rail infrastructure (ﬁgure 1). Such funding has been a precondition for bringing large rail capital projects to fruition in every other country where they exist

#### HSR can decongest both the airlines and highways

Todorovich, director of America 2050 and assistant visiting professor at the Pratt institute Graduate center for planning and Environment. Schned, associate planner for America 2050 and part-time lecturer at the Edward J. Bloustein, School of Planning and Public Policy at Rutgers university, and Lane, Senior fellow for urban design at Regional Plan association 2011

(Pertra, Daniel, and Robert, September 16, Lincoln Istitute of Land Policy, “High-Speed Rail: nternational Lessons for US Policymakers, <http://www.midwesthsr.org/sites/default/files/pdf/Lincoln_Policy_Institute_HSR_2011.pdf> July 1st, MDRJ)

Where it is competitive with other intercity transportation modes, high-speed rail can capture a large share of passenger volume. International experience suggests that high-speed rail usually captures 80 percent of air or rail trips, if the travel time by high-speed train is less than two and a half hours (UIC 2010a). Mode shift to rail provides the greatest beneﬁt in regions where road and air capacity is constrained

#### HSR decreases traffic and air congestion caused by other transportation systems

Dutzik, Senior Policy Analyst with Frontier Group specializing in energy, transportation, and climate policy, holds an M.A. in print journalism from Boston University and a B.S. in public service from Penn State University, 10

(Tony, 2010, “Why Intercity Passenger Rail?,” *The Right Track: Building a 21st Century High-Speed Rail System for America*, Available Online at <http://americanhsra.org/whitepapers/uspirg.pdf,7/5/12>, ML)

An effective intercity transportation system carries business travelers, tourists, and others reliably and efficiently from one city to another. America relies almost entirely on airplanes and roads for intercity transportation, including trips that could be better served by rail. The lack of effective passenger rail service in much of the country adds to congestion on our roads and in our airports—leading to frustration, delay and large losses to the economy. Over the past three decades, the number of miles driven on U.S. roads has almost doubled.6 Over the same period, traffic congestion has skyrocketed. In 2007, congestion cost the country 4.16 billion hours of lost time. Long-distance trips add to this congestion: the U.S. Department of Transportation estimates that Americans take more than 2 billion trips by car of 50 miles or more annually.7 Similarly, the number of miles Americans travel by plane has more than tripled in the past three decades.8 The resulting crowding of airports and airspace has led to more delays and increasingly frustrated passengers. Air travelers wasted more than 2 million hours in airline delays in 2007, with the problem significantly worse at some of the nation’s most frequently used airports.9 Passenger rail can alleviate congestion on highways and in airports—making all aspects of the transportation system more efficient. The Center for Clean Air [end page 9] Policy and the Center for Neighborhood Technology estimate that building out a national high-speed rail network would reduce car travel by 29 million trips and air travel by nearly 500,000 flights—more flights than currently depart each year from Atlanta’s Hartsfield-Jackson Airport, the nation’s busiest.10 The availability of additional options for intercity travel will become even more important in the years ahead as congestion on roadways and in airports increases. In certain areas of the United States, passenger rail service already plays an important role in easing congestion. When the near-high-speed Acela service was introduced in 2000, passenger rail’s share of the travel between Boston, New York and Washington, D.C., rose dramatically while airlines’ portion fell. In 1999, 18 percent of travelers in the air/rail market between Boston and New York took the train; by 2008, this had risen to 47 percent, with only 53 percent flying.11

### Solvency – USFG Key – funding

#### States and privates do not have the funds and have a larger timeframe, feds key to HSR

Kuehn, Associate Partner with Oliver Wyman, Inc., 2011

(Jason, 4/18/11, Oliver Wyman, Inc., “A New Roadmap for High-Speed Rail”, <http://rail.railplanning.com/files/2011/04/20110425-OW-HSR-Commentary-for-Blog_final.pdf>, 7/7/12, CNW)

Critical Success Factors for HSR in the United States What are the critical elements to making HSR successful in the United States?  Capital costs need to be minimized and largely funded by government, at least until critical mass is achieved. As with most large infrastructure projects, there is a risk of cost overruns—the bigger and more greenfield the project, the higher that risk. States are not in a budgetary position to absorb cost overruns. Procuring and upgrading existing rights-of-way is likely to be a far cheaper and faster way to show results than constructing new dedicated HSR lines. Some portions of current routes with high curvature may not be upgradable to HSR standards over time. These areas can be bypassed with segments of newly constructed rights-of-way, but in the interim, service can be started and with growing ridership will come growing support for additional funding for further improvement. This type of incremental support can be seen in some of the criticism of the current program, for not including the Northeast Corridor for funding eligibility.  HSR must be integrated into a larger passenger rail network, with conventional feeder services to/from smaller markets, and commuter rail in the major cities to feed passengers into high-speed corridors. These feeder and commuter services probably will, in many cases, require ongoing operating subsidies. It seems to be generally agreed that these subsidies should be absorbed by the states. While this shows commitment at a local level, fundamentally this will slow down the acceptance of HSR. If the federal government wants to hasten progress, they will also have to underwrite some of the subsidy for commuter and conventional train service development. Under the Passenger Rail Investment and Improvement Act of 2008, the states are already being required to assume responsibility for 100 percent of the operating deficits for existing short-haul (less than 750 miles) corridor trains operated by Amtrak in 2013. Their appetite to absorb new starts, in addition to assuming full responsibility for existing services, is likely to be limited. Without the synergy of feeder services to direct ridership to the HSR corridor, it is unlikely the corridor will draw sufficient ridership to cover operating costs.

#### Sustained federal funding is key to generate private investment and avoid state political backlash

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[Petra Todorovich, Daniel Schned, and Robert Lane, High-Speed Rail: International Lessons for U.S. Policy Makers, <https://www.lincolninst.edu/pubs/dl/1948_1268_High-Speed%20Rail%20PFR_Webster.pdf>, September 2011, Lincoln Institute of Land Policy, Policy Focus Report]

Moreover, as long as the HSIPR Program combines funding for both high-speed and conventional rail, federal grants, not loans, will be required to support its initiatives. Since conventional rail services are likely to need continued operating subsidies, it is even more important to secure a federal funding source for capital infrastructure costs. A small but reliable transportation tax for high-speed and conventional passenger rail would demonstrate the federal government’s commitment to a comprehensive rail program, giving states the assurance they need to plan high-speed rail projects and equipment manufacturers the confidence they require to invest in the industry.

### USFG key – Management

#### The role of the federal government is required to manage multistate programs and operations

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[Petra Todorovich, Daniel Schned, and Robert Lane, High-Speed Rail: International Lessons for U.S. Policy Makers, <https://www.lincolninst.edu/pubs/dl/1948_1268_High-Speed%20Rail%20PFR_Webster.pdf>, September 2011, Lincoln Institute of Land Policy, Policy Focus Report]

The Passenger Rail Investment Improvement Act (PRIIA) is well-suited to support incremental investments in conventional passenger rail corridors, but it does not provide a sufﬁcient policy or management framework to achieve the potential beneﬁts of Core Express high-speed rail. Building on that act, an expanded federal role is needed to plan, prioritize, and commit to investments in high-speed rail and overcome the challenges of managing multistate capital programs and operations. Rather than wait for states to submit applications for federal funding for high-speed rail, the federal government should identify corridors with the greatest chance of meeting its goals and work with the states to secure rights-of-way for implementation. Federal decision makers should prioritize high-speed rail investments in corridors that exhibit regional characteristics that contribute to ridership demand, including population density, employment concentrations, transit connections, existing airline markets, and congestion on parallel road corridors. Federal planners should analyze both the beneﬁts expected to be generated in speciﬁc corridors and the cost estimates for construction and ongoing operations. The respective roles of high-speed Core Express corridors and conventional Regional and Emerging/ Feeder routes need to be clariﬁed, with well-deﬁned objectives for each type of rail service.

#### Federal action is key to high speed rail – only the feds can manage the data and secure right-of-way for the states to build

Todorovich, director of America 2050 and assistant visiting professor at the Pratt Institute Graduate Center for Planning and the Environment, Schned, Associate planner for America 2050 and part-time lecturer for planning at the Edward J. Bloustein School of Planning and Public Policy at Rutgers University, and Lane, Senior fellow for urban design at Regional Plan Association, 2011

(Petra, Daniel, and Robert, September, 16, Lincoln Institute of Land Policy, “High-Speed Rail: International Lessons for US Policymakers

<https://www.lincolninst.edu/pubs/dl/1948_1268_High-Speed%20Rail%20PFR_Webster.pdf>, July 1, BLE)

Such a vision requires a stronger and more active federal commitment that must start with secure funding. The most recent setback of zero funding for high-speed rail in the FY 2011 budget underscores the need for a sustainable revenue source as reliable as funding for highway and transit programs in the past. President Obama’s proposal to include a $53 billion, six-year high-speed rail program as part of the surface transportation bill would help to achieve this kind of equity among transportation modes. In conjunction with a funding strategy, the role of high-speed rail in America’s larger transportation network needs to be better defined (U.S. GAO 2009). A sharper, more narrowly focused program directed at corridors that meet clearly articulated objectives for high-speed rail service would address criticisms that the program is diffuse, ineffective, and dependent on ongoing subsidies. Nationally available data could help to evaluate the most promising regions for attracting ridership and enhancing economic and other benefits. A phasing plan and funding allocation strategy could help develop the full build-out of a national network by helping states secure rights-of-way for high-speed rail corridors.

### USFG key - Competitiveness

#### Only federal action can effectively manage a national HSR system well enough to guarantee US competitiveness

Harrison, Parsons Brinckerhoff VP and Principal Project Manager, Dezarn, Vice President and Director of Transport Strategy within Parsons Brinckerhoff, Dobbins, Supervising Transportation Planner, and Isaac, Service Area Manager for the Transit Management and Effectiveness at Parsons Brinckerhoff, 2011

(John, Sheila, Allison, Lauren, September 2011, Parsons Brinckerhoff, “Short History of HSR in the USA”, <http://www.pbworld.com/pdfs/publications/pb_network/pbnetwork73.pdf>, 7/9/12, CNW)

As has been consistently demonstrated over the past 50 years, both in the US and abroad, high- speed and intercity passenger rail systems have not been developed without substantial federal financial assistance and support. The future of a range of robust HSR and intercity passenger rail corridors in the US depends on resolving a number of issues associated with its cost, funding sources, and implementation strategy. Nevertheless, there are a number of potential long-term benefits in implementing HSIPR. The challenge the U.S. faces is how to effectively involve the federal government in the long-range planning and funding of HSIPR transportation infrastructure within the American economic system. Just as private industry faces unparalleled competition from government-supported industries abroad, so too our national transportation system is challenged to keep pace technologically with other national systems, which are typically planned and developed in a centrally-directed fashion as part of their national transportation policies. As discussed above, federal involvement to date has been intermittent and, as a result, very few projects have been able to advance; certainly, no high speed projects have. A sustained level of federal involvement and investment is absolutely critical for the program to be successful and for these projects to be implemented. And that will require having significant, predictable funding established as part of the next federal surface transportation bill just as has been done for the New Starts program, which provides federal matching funds for mass transit projects in major metropolitan areas. Because of the complexity of HSIPR projects, because of their magnitude, and because of the long timeframes associated with their construction, they require the certainty of a federal commitment. Those states committed to implementing HSIPR projects need the assurance of a federal partnership and the confidence that their investments will not only be matched with federal funds but in the timeframes necessary to construct the projects on a feasible schedule. To establish that federal commitment in the next federal transportation authorization bill will require a broad and committed coalition of states and metropolitan areas that recognizes -- and can clearly and compellingly articulate – how these projects will advance the nation’s transportation, economic, environmental and other policy goals.

Federal funds key to begin HSR projects, states unwilling and privates unable

Peterman, Analyst in Transportation Policy for Congressional Research Service, Frittelli, Specialist in transportation policy for CRS, and Mallet, specialist in transportation policy for CRS, 2009

(David Randall, John, William J, 12/8/9, Congressional Research Service, “High Speed Rail (HSR) in the United States“, <http://www.fas.org/sgp/crs/misc/R40973.pdf>, 7/10/12, CNW)

Several factors have constrained the development of high speed rail. The financial support from the federal government for lines outside the NEC has been modest, and primarily for planning. Developing high speed rail lines involves high upfront costs over a long period of time before revenue operations begin (it took about a decade to build France’s first high speed line and almost two decades for Germany’s, which was slowed by legal challenges). States, which could get federal matching grants for their spending on highways and transit, were reluctant to spend vast sums on developing high speed rail, for which there was no significant federal funding assistance, and so looked to the private sector to take the lead. But there is little evidence that high speed rail lines could be profitable. That, combined with the high upfront costs and the long period before any revenue would begin to flow, poses a problem for private investors. Consequently, in spite of decades of discussion about the potential of high speed rail, as of 2009 there are still no exclusive high speed rail lines in the United States. There is only one rail line in the nation where trains can attain speeds of over 110 mph (the Northeast Corridor), and only four other corridors where trains can currently reach top speeds greater than 79 mph (see Table 3)

#### Only sustained federal funding combined with a national HSR plan can generate a national system capable of spurring US competitiveness

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[Petra Todorovich, Daniel Schned, and Robert Lane, High-Speed Rail: International Lessons for U.S. Policy Makers, <https://www.lincolninst.edu/pubs/dl/1948_1268_High-Speed%20Rail%20PFR_Webster.pdf>, September 2011, Lincoln Institute of Land Policy, Policy Focus Report]

Each country that has developed high-speed rail has done so with strong national government leadership. Prior to President Barack Obama’s recent embrace of high-speed rail, federal government support had been a missing ingredient in U.S. passenger rail development. However, signiﬁcant federal investments in high-speed rail in 2009–2010 put the federal High-Speed Intercity Passenger Rail (HSIPR) Program on a solid initial footing. Whether that commitment can be sustained in a difﬁcult ﬁscal environment will determine whether high-speed rail in the United States can become a reality. The federal commitment to high-speed rail began in 2008, when Congress passed the Passenger Rail Investment Improvement Act (PRIIA), which authorized funding for Amtrak and state-led efforts to develop highspeed rail corridors between 2009 and 2013. In February 2009, just months after PRIIA was signed into law at the end of 2008, the act became the vehicle for appropriating $8 billion for high-speed rail under the American Recovery and Reinvestment Act (ARRA). An additional $2.5 billion for high-speed rail was appropriated by Congress in the Fiscal Year (FY) 2010 budget (ﬁgure 8). These appropriations, totaling $10.5 billion for high-speed and passenger rail, transformed the preservation-focused program established by PRIIA into a highly visible high-speed rail initiative that later became the centerpiece of the Obama administration’s infrastructure agenda. However, this sudden infusion of funding also revealed PRIIA’s limitations and the challenges of creating an ambitious highspeed and intercity passenger rail program virtually overnight. The subsequent Congressional appropriation for FY 2011 stripped the program of any funding in 2011 and rescinded $400 million from the FY 2010 budget. This abrupt reversal underscores the program’s vulnerability to shifting political winds as long as it has to rely on annual Congressional appropriations for its funding. The current federal policy framework for high-speed rail was shaped in response to both the history of unreliable and minimal federal contributions for passenger rail and the efforts of individual states acting on their own initiative and with their own funding to improve rail corridors. While PRIIA is an improvement over the previous lack of a U.S. passenger rail policy, it is not well-suited to a more ambitious, sustained federal commitment to building dedicated, multistate high-speed rail corridors. Unlike the U.S. highway and transit programs, which rely on dedicated revenue streams from the federal motor fuels tax, passenger rail has no dedicated source of revenue and thus relies on Congress for general fund appropriations. Prior to the passage of PRIIA, most passenger rail appropriations were made directly to Amtrak each year, but with no multiyear authorization since 2002. Numerous Amtrak ofﬁcials have testiﬁed to Congress over the years that the uncertainty of these annual, often politicized, appropriations makes planning and operating the railroad difﬁcult. In the absence of consistent federal support for passenger rail, states including California, North Carolina, Pennsylvania, and Washington have established dedicated funding streams to improve conventional passenger rail corridors operated by Amtrak. Other states, such as Illinois, Maine, and Vermont, have directed state general funds or ﬂexible federal funds to subsidize and supplement their passenger rail service (U.S. GAO 2010). These state investments have led to the purchase of new rail cars in Washington, track upgrades for and re-electriﬁcation of the Keystone Corridor in Pennsylvania, and more frequent, reliable service and higher ridership on all state-sponsored lines. State funding for rail has come from various sources, including portions of state gas and diesel taxes, ﬂexible funding from the federal Congestion Mitigation and Air Quality Improvement Program, state rental car taxes, and proceeds from specially branded Cash Train scratch lottery tickets in Washington state. A sustainable funding strategy, including reliable federal commitments, is needed to put the HSIPR Program on a ﬁrm footing and inspire conﬁdence among states and the private sector. This strategy can make use of a variety of public and private ﬁnancing tools that leverage net revenue streams generated by high-speed rail operations. When approaching public- private partnerships, a proper allocation of risk among the parties is critical to a successful project.

### Solvency – Mode Shift – Generally

#### HSR trades off with other forms of transport

Todrovich, director of America 2050, Schend, associate planner for America 2050 at Regional Plan Association, and Lane, senior fellow for urban design at Regional

Plan Association,2011

(Petra, Daniel, Robert, “High-Speed Rail International Lessons for U.S. Policy Makers”, <http://www.lincolninst.edu/pubs/1948_High-Speed-Rail>, September 2011, 7/2/12)

Mode shift: Where it is competitive with other intercity transportation modes, high-speed rail can capture a large share of passenger volume. International experience suggests that high-speed rail usually captures 80 percent of air or rail trips, if the travel time by high-speed train is less than two and a half hours (UIC 2010a). Mode shift to rail provides the greatest benefit in regions where road and air capacity is constrained.

#### HSR are successful in tradeoff With Airlines and Motor Vehicles

Chou, Assistant Professor of Aviation and Maritime Management, Jung Christian University, Taiwan Fu, Graduate Student of Urban Planning, National Cheng Kung University, Taiwan, 2007(Hung-Yen, Chang, Chiang, “A Study of Domestic Air Passengers’ Preference for High-Speed

Rail Mode in Taiwan”, <http://www.jgbm.org/page/19%20%20Chiang%20Fu.pdf>, accessed 7/3/12)

Taking the current domestic airline of Taipei-Tainan flight line for example, the service difference provided by air carriers is not large; under consideration of the participation of high-speed rail travel mode, ticket price and travel time are important service level factors with impact on passengers’ taking intent. Concerning the passenger connection method variable, the passengers driving cars themselves for connection have high intent of taking high-speed rail. Besides, by means of the good result of ordinal number data model in evaluating ordinal number data preference information, the variables under consideration of the ordinal number data preference model are mostly the same as

#### HSR Hold the potential for large passenger tradeoff With bot Airplanes and Cars

Todorovich, Director of America 2050, Schned, associate planner for America 2050, Lane, Senior Fellow for urban designat Regional plan Association, 2011

(Petra, Daniel, Robert, September 16, 2011, Lincoln Institute of Land Policy, “High-Speed Rail international lessons for U.S. Policy Makers”, <http://www.midwesthsr.org/sites/default/files/pdf/Lincoln_Policy_Institute_HSR_2011.pdf>, TRH)

Mode shift: Where it is competitive with other intercity transportation modes, high-speed rail can capture a large share of passenger volume. International experience suggests that high-speed rail usually captures 80 percent of air or rail trips, if the travel time by high-speed train is less than two and a half hours (UIC 2010a). **Mode** shift to rail provides the greatest benefit in regions where road and air capacity is constrained.Safety: High-speed rail systems around the world have experienced excellent safety records. Until a deadly accident in China in July 2011, high-speed rail operations on dedicated tracks had never experienced a single injury or fatality (UIC 2010b). If high-speed rail is built in the United States and meets historic safety standards, one result could be fewer transport-related deaths as more passengers choose rail for intercity travel. Reliability: Dedicated high-speed rail services usually operate at greater frequencies than conventional rail, and have fewer delays and better on-time performance than cars and airplanes**.** The average delay of a Shinkansen train on the Tokaido line is only 30 seconds (JR Central 2011b). Spain’s AVE provides a full refund to passengers if their train is more than five minutes late (RENFE 2011).

#### HSR are successful in tradeoff

**Chou**, Assistant Professor of Aviation and Maritime Management, Jung Christian University, Taiwan Fu, Graduate Student of Urban Planning, National Cheng Kung University, Taiwan, 2007

(Hung-Yen, Chang, Chiang, “A Study of Domestic Air Passengers’ Preference for High-Speed

Rail Mode in Taiwan”, <http://www.jgbm.org/page/19%20%20Chiang%20Fu.pdf>, accessed 7/3/12)

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#### HSR cuts travel by other modes significantly

CALPIRG, a consumer group that researches public issues about health and safety. ,2010 (June, CALPIRG, “Next Stop: California The Benefits of High-Speed Rail Around the World and What’s in Store for California,” http://cdn.publicinterestnetwork.org/assets/ff178505134e5feffbd9dc8faf2ece7d/Next-Stop-California.pdf 7/4/12, MDRJ)

. High-speed rail service has virtually eliminated short-haul air service on several corridors in Europe, such as between Paris and Lyon, France, and between Cologne and Frankfurt, Germany. • The number of air passengers between London and Paris has been cut in half since high-speed rail service was initiated between the two cities through the Channel Tunnel. • The recent launch of high-speed rail service between Madrid and Barcelona, Spain, has cut air travel on what was once one of the world’s busiest passenger air routes by one-third. • Even in the northeastern U.S., where Amtrak Acela Express service is slow by international standards, rail service accounts for 62 percent of the air/rail market on trips between New York and Washington, D.C., and 47 percent of the air/rail market on trips between Boston and New York

#### HSR Tradeoff with Motor Vehicles and Airplanes

APTA 2012

(American Public Transportation Association, January 2012, “An inventory of the Critucisms of High-Speed Rail”, <http://www.apta.com/resources/reportsandpublications/Documents/HSR-Defense.pdf>, accessed 7/5/12, TRH)

Of the 33 million air trips forecast to be made in the year 2030, over a third or 12 million would be attracted to high-speed trains, bringing the level of air traffic in the state back to the levels of 2000, slightly higher than it is today. In other words, most of the growth in air traffic would be diverted, leaving airport capacity for international and out-of-state flights. Of the 911 million auto travelers forecast in 2030 to make trips between the 14 proposed California regions, about 6% or 50 million would be attracted to high-speed trains. Within the regions that have several stations (Los Angeles Basin, the Bay Area, and San Diego County) high-speed trains will attract another 25 million auto trips, less than 1% of the local urban area auto travel.

### Solvency – Mode shift – highways

#### Rail can replace highways effectively, and are better for the environment

Todrovich, director of America 2050, Schend, associate planner for America 2050 at Regional Plan Association, and Lane, senior fellow for urban design at Regional

Plan Association,2011

(Petra, Daniel, Robert, “High-Speed Rail International Lessons for U.S. Policy Makers”, <http://www.lincolninst.edu/pubs/1948_High-Speed-Rail>, September 2011, 7/2/12)

Efficient land use: A typical highspeed rail line has the ability to transport approximately the same number of people in the same direction as a three-lane highway, but on a fraction of the land area. The right-of-way width of a typical two-track high-speed rail line is about 82 feet—onethird the width of a standard six-lane highway (246 feet). This difference in land use amounts to a savings of 24.3 acres per mile of high-speed rail. Such a savings could be particularly significant in environmentally sensitive areas that need protection and in urbanized areas where land for highway expansion is costly to acquire (UIC 2010a).

### Solvency – Mode shift – Airlines

#### Other modes particularly High Speed Rail are competitive to the Airline Industry

Peterson 2010

(Steve, 12-2010, IBM Global Business Services: IBM Institute for Business Value, “Airlines 2020: Sustitution and Commoditization,” <http://theinformationdj.com/wp-content/uploads/2012/03/airline-2020-susbtitution-and-commoditization.pdf>, 7-11-12, GHK)

As the industry looks forward to the next ten years, many of these same challenges – increasing competition, economic volatility, heightened customer expectations – will remain. But two other issues, which currently fly beneath the radar of many carriers, threaten to have an adverse and potentially longlasting impact on the future state of the industry: substitution and commoditization. With the prevalence of alternative modes of transportation, particularly high-speed rail, customers often have the choice of substituting air travel with less costly modes of travel that require less of a personal time sacrifice. And with commoditization, consumers often find few differences among the product offerings of different airlines – or are unwilling to pay for the differences they do perceive. Substitution has been around since the advent of mechanized transportation. From covered wagons to steam-driven locomotives, from horse and buggies to automobiles, from steamships to airliners, passenger transportation has been shaped by the immutable desire to travel farther and faster. Travelers have accepted new modes of transportation when reliability, cost and convenience combine to make the competing alternatives viable. For most of the past 75 years, air travel has enjoyed a substantial advantage over alternative modes in speed and convenience. But in today’s world of heightened security and congested skies, the hassles and complications of booking, boarding and departure have stolen much of the time advantage conferred by higher point-to-point speeds. Customer dissatisfaction with the increasing difficulties of flying has made many travelers eager to try new or different alternatives.

#### High Speed Rail is More Cost Effective than Air Travel

Peterson 2010

(Steve, 12-2010, IBM Global Business Services: IBM Institute for Business Value, “Airlines 2020: Sustitution and Commoditization,” <http://theinformationdj.com/wp-content/uploads/2012/03/airline-2020-susbtitution-and-commoditization.pdf>, 7-11-12, GHK)

The increasing complexity and time involved in air travel comes at a time when government-subsidized high-speed rail in many nations has negated some of air travel’s speed advantage, at least over short-to-moderate distances. Combined with ease of booking and boarding, the usually lower cost of high-speed rail, where available, has made it an attractive option for travelers. Further, many companies now substitute telepresence in place of meetings that would previously have required in-person attendance. Travel management companies often work to integrate telepresence into their corporate travel solutions.

#### **HSR trades gets ridership from flights, relieves delays and is a safe investment**

Building America’s Future Educational Fund, 2011

(2011, Building America’s Future Educational Fund, “Building America’s Future: Falling Apart and Falling Behind: Transportation Infrastructure Report 2011”, <http://www.bafuture.org/sites/default/files/Report_0.pdf>, 7/7/12, CNW)

The experience of other countries provides proof that high-speed rail can turn shorthaul air passengers into train travelers. In its first full year of service, the Madrid-Barcelona high-speed rail cut air travel by one-third (1.5 million passengers) in what used to be Europe’s busiest passenger air route. By early 2010, the number of train travelers between the two cities exceeded the number of air travelers. Trains between Rome and Bologna (222 miles in 2 hours 44 minutes), Tokyo and Osaka (320 miles in 2 hours 24 minutes), and Paris and Lyon (267 miles in 85 minutes), for example, have captured between 75 and 95% of the air/rail market. Thanks to the success of the bullet train, planes no longer fly the 227-mile route between Tokyo and Nagoya. We can also look to other countries for assurance that high-speed rail is a sound investment. Two towns with high-speed rail stations on the Cologne-Frankfurt line in Germany experienced a 2.7% greater increase in overall economic activity as compared to the rest of the region. 39 Office buildings near high-speed rail stations in France and northern Europe generally charge higher rents than in other parts of the same cities, and property values near Shinkansen stations in Japan are 67% higher than property values farther away. 40 And high-speed rail has been shown to increase tourism in France and England. 41 The number of air passengers around the world is projected to more than double to 4.5 billion a year by 2025, which our airports simply cannot handle. If nothing is done, delays at airports around the country will continue to grow worse.

#### HSR substantially trades - off with air

Peterman, Analyst in Transportation Policy, 2009

(David Randall, December 8, High Speed Rail (HSR) in the United States, www.fas.org/sgp/crs/misc/R40973.pdf)

The effect of HSR on air traffic congestion is less clear. Since HSR is more comparable to commercial air travel than it is to automobile travel, it is likely that in the right circumstances a significant share of air travelers would switch to HSR. In its 1997 study, FRA estimated that generally between 20% and 50% might be expected to divert from air to HSR, with higher diversion rates associated with faster forms of HSR.41 The IG’s study of the NEC estimated that 11% of flyers would take the train in scenario 1 and 20% would take the train in scenario 2, concluding, therefore, that “this would provide congestion relief at NEC airports and in NEC airspace.”

## ADV – Econ

### Econ – Jobs

#### HSR will generate surplus revenue, create jobs, and restore economic competitiveness

APTA, American Public Transportation Association, 2012

(American Public Transportation Association, January 2012, “An Inventory of the Criticisms of High-Speed Rail With Suggested Responses and Counterpoints”, <http://www.apta.com/resources/reportsandpublications/Documents/HSR-Defense.pdf>, 7/3/12, ML)

But the derision Mr. Will should refer to is the fact that these criticisms, as we noted in our introduction, are all coming from a small group of individuals who are engaged in a campaign in which they repeat each other’s mantra until it seems that everyone is saying and believing the same thing. They mouth the same fictions that the CATO Institute, the Heritage Foundation, and the Reason Foundation have been mouthing for the past two years in an effort to defeat the administration’s intercity passenger and high-speed rail initiative while at the same time attempting to advance continued subsidies for highway construction and maintenance. It is unfortunate that these groups would wish to frame the debate in this fashion, particularly when national organizations and leaders recognize that this is not an “either/or” debate. This is a debate over providing Americans a third viable transportation option that will actually enhance the ability of travelers and shippers to wring better value out of what should be a highly integrated, wisely used transportation system. There is growing evidence that in fact passenger rail can and is generating surplus revenue “above the rails.” With an appropriate commitment to infrastructure development by the public sector in partnership with the private sector, passenger rail that is part of a highly integrated passenger transportation system would benefit the United States in many ways, not the least of which would be to create good, well-paying jobs and help restore the nation’s economic competitiveness.

#### Federal investment in HSR creates 1.3 million jobs

American Public Transportation Association, 2011

(American Public Transportation Association, 4/6/11, “Federal Investment in High-Speed Rail Could Spur 1.3 Million Jobs”, <http://www.apta.com/mediacenter/pressreleases/2011/Pages/110406_HSR_Business.aspx>, 7/2/12, ML)

The report, “The Case for Business Investment in High-Speed and Intercity Passenger Rail” reinforces the point that investments in high-speed and intercity rail will have many direct and indirect benefits. Nationally, due to proposed federal investment of high-speed rail over a six-year period, investment can result in supporting and creating more than 1.3 million jobs. This federal investment will be the catalyst for attracting state, local and private capital which will result in the support and creation of even more jobs. According to this new report, investments in building a 21st century rail system will not only lead to a large increase in construction jobs, but to the sustainable, long-term growth of new manufacturing and service jobs across the country. “It is evident that investing in high-speed and intercity rail projects presents one of the clearest and fastest ways to create green, American jobs and spur long-term economic growth,” said APTA President William Millar. “Investing in high-speed rail is essential for America as we work to build a sustainable, modern transportation system that meets the environmental and energy challenges of the future.” APTA noted for each $1 billion invested in high-speed rail projects, the analysis predicts the support and creation of 24,000 jobs.

With the current amount of investment, HRS Will create 100,000+ Jobs in the us

APTA 2012

(American Public Transportation Association, January 2012, “An inventory of the Critucisms of High-Speed Rail”, <http://www.apta.com/resources/reportsandpublications/Documents/HSR-Defense.pdf>, accessed 7/5/12, TRH)

This is the same collection of rants that is propagated on a regular basis from the likes of the Reason Foundation, the CATO and Hover Institutes, the Heritage Foundation and good old Wendell Cox. An Inventory of the Criticisms of High-Speed Rail With Suggested Responses and Counterpoints The job creation benefits are documented in, among many sources, a 2007 Federal Highway Administration study that identified that for every $1 billion invested in infrastructure development, 20,000 long- and short-term jobs are created. The American Association of State Highway and Transportation Officials, on their website (AASHTO. org) substantiates the number of highway mile/lanes that can be replaced by commuter and intercity passenger rail service, as well as the impact transit and intercity rail can have on energy consumption. The Urban Institute, Transportation For America, and the National Council of State Legislatures document the urban renewal impact of transit and passenger rail. Finally, in both the PRIIA and the American Reinvestment and Recovery Act of 2009 (ARRA), strict “Buy American” provisions require that at least 80 percent of the equipment and material procured to build and operate America’s newly rejuvenated passenger rail system, including high-speed rail, be built and acquired from companies based in the United States and employing American workers.

#### HSR investment directly creates jobs. China and Spain prove

Todorovich, director of America 2050 and assistant visiting professor at the Pratt institute Graduate center for planning and Environment. Schned, associate planner for America 2050 and part-time lecturer at the Edward J. Bloustein, School of Planning and Public Policy at Rutgers university, and Lane, Senior fellow for urban design at Regional Plan association 2011

(Pertra, Daniel, and Robert, September 16, Lincoln Istitute of Land Policy, “High-Speed Rail: nternational Lessons for US Policymakers, <http://www.midwesthsr.org/sites/default/files/pdf/Lincoln_Policy_Institute_HSR_2011.pdf> July 1st, MDRJ)

High-speed rail creates thousands of construction-related jobs in design, engineering, planning, and construction, as well as jobs in ongoing maintenance and operations. In Spain, the expansion of the high-speed AVE system from Malaga to Seville is predicted to create 30,000 construction jobs (Euro Weekly 2010). In China, over 100,000 construction workers were involved in building the high-speed rail line that connects Beijing and Shanghai (Bradsher 2010). Sustained investment could foster the development of new manufacturing industries for rail cars and other equipment, and generate large amounts of related employment.

#### High Speed Rail will spur economic growth through jobs – 3 key sectors affected

APTA 11

(APTA - American Public Transportation Association; 4/6/2011; “Federal Investment in High-Speed Rail Could Spur 1.3 Million Jobs”; <http://www.apta.com/mediacenter/pressreleases/2011/Pages/110406_HSR_Business.aspx>; Kristof)

New report shows tangible economic benefits of investments in building a 21st century rail system Washington, DC – April 6, 2011 –The American Public Transportation Association (APTA) released a report detailing the enormous impact high-speed and intercity passenger rail projects will have in driving job development, while also rebuilding America’s manufacturing sector and generating billions of dollars in business sales. This report focuses on key issues critical to private investors as they consider investments or future expansion into businesses serving the growing passenger rail markets. The report, “The Case for Business Investment in High-Speed and Intercity Passenger Rail” reinforces the point that investments in high-speed and intercity rail will have many direct and indirect benefits. Nationally, due to proposed federal investment of high-speed rail over a six-year period, investment can result in supporting and creating more than 1.3 million jobs. This federal investment will be the catalyst for attracting state, local and private capital which will result in the support and creation of even more jobs. According to this new report, investments in building a 21st century rail system will not only lead to a large increase in construction jobs, but to the sustainable, long-term growth of new manufacturing and service jobs across the country.

#### HSR promotes economic growth and jobs. Europe proves.

Todorovich, director of America 2050 and assistant visiting professor at the Pratt institute Graduate center for planning and Environment. Schned, associate planner for America 2050 and part-time lecturer at the Edward J. Bloustein, School of Planning and Public Policy at Rutgers university, and Lane, Senior fellow for urban design at Regional Plan association 2011

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Decades of international experience with high-speed rail suggests that it could create similar transportation, economic, environmental, and safety beneﬁts in American cities and regions. While it requires high upfront investment, high-speed rail promotes economic growth by improving market access, boosting productivity of knowledge workers, expanding labor markets, and attracting visitor spending. When planned thoughtfully with complementary investments in the public realm, high-speed rail can promote urban regeneration and attract commercial development, as shown in several European examples. High-speed rail has greater operating energy efﬁciency than competing modes and takes up less land than highways.

#### HSR creates large amount of jobs

Todorovich, director of America 2050 and assistant visiting professor at the Pratt Institute Graduate Center for Planning and the Environment, Schned, Associate planner for America 2050 and part-time lecturer for planning at the Edward J. Bloustein School of Planning and Public Policy at Rutgers University, and Lane, Senior fellow for urban design at Regional Plan Association, 2011

(Petra, Daniel, and Robert, September, 16, Lincoln Institute of Land Policy, “High-Speed Rail: International Lessons for US Policymakers

<https://www.lincolninst.edu/pubs/dl/1948_1268_High-Speed%20Rail%20PFR_Webster.pdf>, July 1, BLE)

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#### HSR creates jobs and economic growth—California proves

Ball and Cush, 12

(Andy & David, 7-1-12, “High Speed Rail is Right for California”, <http://www.dailydemocrat.com/guestopinions/ci_20983929/high-speed-decisions>, 7-3-12, BLE)

In the midst of the debate surrounding high-speed rail, the project remains a top priority to a diverse set of business, labor, civic, transportation and community organizations throughout California. High-speed rail development is an essential component of a forward-looking economic agenda that will immediately bolster California's job outlook and improve our economy in the long-term. Initial high-speed rail investments in the Central Valley, will immediately create thousands of jobs and spur growth in businesses that directly and indirectly support the project. In addition to the 100,000 job-years generated by the Central Valley project, high-speed rail investments in Caltrain electrification will result in almost 9,600 direct construction job-years -- a "job-year" being one job lasting for a year -- at a time when we need them most. In addition, the economic benefits from improved rail service between the two economic powerhouses of San Francisco and Silicon Valley are invaluable to our regional economy. The big obstacle -- and it is a legitimate one -- is the state's economic outlook. How can we undertake a project like this in the current economy? As the country experienced during the Great Depression, real investment in infrastructure helped put people back to work and built a lasting foundation for the economy to grow on. High-speed rail is a tangible project that will spur job growth, improve the lives of millions of Californians and help create a transport infrastructure for the state that supports the 21st century economy. Starting the high-speed rail project will also generate jobs and material sales, which in turn result in more income and sales tax revenues flowing to the state during construction to improve the near-term budget situation. Delaying or canceling high-speed rail would make the budget situation worse, not better, even without taking into account the cost of alternative transportation like highway and airport expansion -- or the cost of inaction such as increased traffic, lost productivity and the environmental impacts of the current system.

#### HSR widely spreads economic wealth and creates thousands of jobs. Empirics prove

CALPIRG, a consumer group that researches public issues about health and safety. ,2010

(June, CALPIRG, “Next Stop: California The Benefits of High-Speed Rail Around the World and What’s in Store for California,” http://cdn.publicinterestnetwork.org/assets/ff178505134e5feffbd9dc8faf2ece7d/Next-Stop-California.pdf 7/4/12, MDRJ)

The arrival of high-speed rail alters the economic geography of a region. Places that had once been difficult to reach –due to distance, congestion or lack of an efficient transportation link—suddenly become easily accessible. The calculus behind countless individual and business decisions—where to locate, how to travel, when to travel—is changed dramatically. As a result, high-speed rail has broad, and often difficult to quantify, economic impacts.To begin to understand the impact of high-speed rail on the economy, it is best to start from the center and work outwards, beginning with job creation in construction of the line, then addressing economic growth in areas with stations, and looking finally at the broader economy.High-speed rail systems require vast amounts of labor to create—from the professional services required to plan, design and finance the system right down to the work of pouring the concrete and lay the rails. Perhaps the biggest source of job creation is in the actual construction of the system. At the peak of construction, the Channel Tunnel employed more than 10,000 workers on the English side. 66About 8,000 people were involved in construction of the Channel Tunnel Rail Link. 67 • Hong Kong’s high-speed rail line is projected to create 5,000 jobs during construction and another 10,000 during operation. 68 • The planned expansion of Spain’s AVE high-speed rail system is expected to create 30,000 construction jobs. 69

#### The plan creates more than one million jobs

U.S. Department of Transportation 2010

(September, National Rail Plan Moving Forward, http://www.fra.dot.gov/downloads/NRP\_Sept2010\_WEB.pdf)

Boost manufacturing and economic activity. According to a report by the Center on Globalization, Governance and Competitiveness, the U.S. rail market is the most open market in the world.6 A commitment to developing a 21st century long-term passenger rail network will provide a significant boost to the manufacturing sector, creating green, highwage jobs for thousands of people. Additionally, well over a million people could be employed in constructing the network, and thousands more in operations and maintenance.

#### High Speed Rail Will Create Over one Million Jobs

American Public Transportation Association 2011

(Federal Investment in High-Speed Rail Could Spur 1.3 Million Jobs

http://www.apta.com/mediacenter/pressreleases/2011/Pages/110406\_HSR\_Business.aspx)

Washington, DC – April 6, 2011 –The American Public Transportation Association (APTA) released a report detailing the enormous impact high-speed and intercity passenger rail projects will have in driving job development, while also rebuilding America’s manufacturing sector and generating billions of dollars in business sales. This report focuses on key issues critical to private investors as they consider investments or future expansion into businesses serving the growing passenger rail markets. The report, “The Case for Business Investment in High-Speed and Intercity Passenger Rail” reinforces the point that investments in high-speed and intercity rail will have many direct and indirect benefits. Nationally, due to proposed federal investment of high-speed rail over a six-year period, investment can result in supporting and creating more than 1.3 million jobs. This federal investment will be the catalyst for attracting state, local and private capital which will result in the support and creation of even more jobs. According to this new report, investments in building a 21st century rail system will not only lead to a large increase in construction jobs, but to the sustainable, long-term growth of new manufacturing and service jobs across the country. “It is evident that investing in high-speed and intercity rail projects presents one of the clearest and fastest ways to create green, American jobs and spur long-term economic growth,” said APTA President William Millar. “Investing in high-speed rail is essential for America as we work to build a sustainable, modern transportation system that meets the environmental and energy challenges of the future.” APTA noted for each $1 billion invested in high-speed rail projects, the analysis predicts the support and creation of 24,000 jobs.

#### HSR spurs job growth and solves oil dependency

Burns, international journalist and UN correspondent, 11

(Patrick Burns; international journalist and United Nations correspondent; February 1, 2011; “All Aboard for High-Speed Rail”; <http://www.policyinnovations.org/ideas/briefings/data/000194/>; accessed July 2)

An **added benefit of high-speed rail is that it would create thousands of** manufacturing and construction **jobs**. **After years of negligible** industrial **job growth**, shovel-ready **projects are still frustratingly elusive**. Already there is evidence that jobs may not materialize if the initiatives don't go forward—following Wisconsin's cancellation of rail funding, Spanish train manufacturer Talgo scrapped plans to build a facility in Milwaukee. Third, **rail is** justplain **more efficient than road and air travel**. According to the Environmental Law & Policy Center, **Americans spend $1 billion a day on foreign oil** and an average of four weeks each year stuck in gridlock. Massive flight delays and airport security screenings have rendered short-haul flights an inconvenient hassle. **Rail presents a way to alleviate pressure on** those flights and give **customers** greater choice.

### **Econ – HSR Creates a Stimulus**

#### HSR Generates Economic Growth – 6 Internal Links

TODOROVICH, SCHNED, & LANE 11 1. director of America 2050, a national urban planning initiative, member of the Board of Advisors of the Eno Transportation Foundation, Masters in City and Regional Planning from the Bloustein School of Planning and Public Policy at Rutgers University 2. associate planner for America 2050 at Regional Plan Association 3. senior fellow for urban design at Regional Plan Association and founding principal of Plan & Process LLP. Loeb Fellow at the Harvard Graduate School of Design

[Petra Todorovich, Daniel Schned, and Robert Lane, High-Speed Rail: International Lessons for U.S. Policy Makers, <https://www.lincolninst.edu/pubs/dl/1948_1268_High-Speed%20Rail%20PFR_Webster.pdf>, September 2011, Lincoln Institute of Land Policy, Policy Focus Report]

Higher wages and productivity: The time savings and increased mobility offered by high-speed rail enables workers in the service sector and in information-exchange industries to move about the megaregion more freely and reduces the costs of face-to-face communication. This enhanced connectivity boosts worker productivity and business competitiveness, [end page 16] leading to higher wages (Greengauge 21 2010). Deeper labor and employment markets: By connecting more communities to other population and job centers, high-speed rail expands the overall commuter shed of the megaregion. The deepened labor markets give employers access to larger pools of skilled workers, employees access to more employment options, and workers access to more and cheaper housing options outside of expensive city centers (Stolarick, Swain, and Adleraim 2010). Expanded tourism and visitor spending: Just as airports bring visitors and their spending power into the local economy, high-speed rail stations attract new tourists and business travelers who might not have made the trip otherwise. A study by the U.S. Conference of Mayors (2010) concluded that building high-speed rail would increase visitor spending annually by roughly $225 million in the Orlando region, $360 million in metropolitan Los Angeles, $50 million in the Chicago area, and $100 million in Greater Albany, New York. Direct job creation: High-speed rail creates thousands of construction-related jobs in design, engineering, planning, and construction, as well as jobs in ongoing maintenance and operations. In Spain, the expansion of the high-speed AVE system from Malaga to Seville is predicted to create 30,000 construction jobs (Euro Weekly 2010). In China, over 100,000 construction workers were involved in building the high-speed rail line that connects Beijing and Shanghai (Bradsher 2010). Sustained investment could foster the development of new manufacturing industries for rail cars and other equipment, and generate large amounts of related employment. Urban regeneration and station area development: High-speed rail can generate growth in real estate markets and anchor investment in commercial and residential developments around train stations, especially when they are built in coordination with a broader set of public interventions and urban design strategies (see chapter 3). These interventions ensure that high-speed rail is integrated into the urban and regional fabric, which in turn ensures the highest level of ridership and economic activity. For example, the city of Lille, France, experienced greater than average growth and substantial office and hotel development after its high-speed rail station was built at the crossroads of lines linking London, Paris, and Brussels (Nuworsoo and Deakin 2009). Spatial agglomeration: High-speed rail enhances agglomeration economies by creating greater proximity between business locations through shrinking time distances, especially when the locations are within the rail-friendly 100 to 600 mile range. Agglomeration economies occur when firms benefit from locating close to other complementary firms and make use of the accessibility to varied activities and pools of skilled labor. [end page 17] High-speed rail has also been described as altering the economic geography of megaregions. By effectively bringing economic agents closer together, high-speed rail can create new linkages among firms, suppliers, employees, and consumers that, over time, foster spatial concentration within regions (Ahlfeldt and Feddersen 2010). This interactive process creates net economic gains in addition to the other economic benefits described here.

#### Federal HSR investment jumpstarts the US economy

American Public Transportation Association, 2011

(American Public Transportation Association, 4/6/11, “Federal Investment in High-Speed Rail Could Spur 1.3 Million Jobs”, <http://www.apta.com/mediacenter/pressreleases/2011/Pages/110406_HSR_Business.aspx>, 7/2/12, ML)

In addition to the thousands of new construction jobs, investments in high-speed rail will jumpstart the U.S. economy. The Economic Development Research Group for the U.S. Conference of Mayors studied the business impact of high-speed rail investment in different urban regions. For example, in Los Angeles, CA, high-speed rail investment generates $7.6 billion in business sales and $6.1 billion in Chicago, IL. “Federal high-speed rail investment is a strong driver in getting private companies to invest,” said Kevin McFall, Senior Vice President at Stacy and Witbeck Inc., a leading public transit construction firm. “This program can be a shot in the arm for the manufacturing industry. These high-speed rail projects will give us the opportunity to put people to work building the rail infrastructure this country desperately needs.” “U.S. businesses have been known for their cutting edge technologies and innovations, said Jeffrey Wharton, President of IMPulse NC. “We need to put this expertise to work, providing business and employment opportunities while catching up with the rest of the world in high-speed rail and its associated benefits.” “We are excited about the prospect of putting Americans to work building the rail tracks and equipment that will keep America’s economic recovery moving forward,” said Charles Wochele, Vice President for Industry and Government Relations at Alstom Transport. “We look forward to partnering with the federal and state governments to ensure these projects get off the ground.”

#### HSR spurs economic development

USHSR, US High Speed Rail Association, 2012

(US High Speed Rail Association, 2012, “ECONOMIC BENEFITS OF HIGH SPEED RAIL”, <http://www.ushsr.com/benefits/economic.html>, 7/3/12, ML)

High speed rail delivers many layers of economic benefits High speed rail delivers fast, efficient transportation so riders can save time, energy, and money. HSR is extremely reliable and operates in all weather conditions. HSR is not subject to congestion, so it operates on schedule every day without delay - especially during rush hour and peak travel times. HSR spurs the revitalization of cities by encouraging high density, mixed-use real estate development around the stations. HSR also fosters economic development in second-tier cities along train routes. HSR links cities together into integrated regions that can then function as a single stronger economy. HSR broadens labor markets and offers workers a wider network of employers to choose from. HSR encourages and enables the development of technology clusters with fast easy access between locations. HSR also expands visitor markets and tourism while increasing visitor spending. The many benefits HSR delivers spread throughout regions that have HSR, encouraging economic development across a large area.

#### HSR uniquely boosts the economy. Empirics prove

Todorovich, director of America 2050 and assistant visiting professor at the Pratt institute Graduate center for planning and Environment. Schned, associate planner for America 2050 and part-time lecturer at the Edward J. Bloustein, School of Planning and Public Policy at Rutgers university, and Lane, Senior fellow for urban design at Regional Plan association 2011

(Pertra, Daniel, and Robert, September 16, Lincoln Istitute of Land Policy, “High-Speed Rail: nternational Lessons for US Policymakers, <http://www.midwesthsr.org/sites/default/files/pdf/Lincoln_Policy_Institute_HSR_2011.pdf> July 1st, MDRJ)

High-speed rail’s ability to promote economic growth is grounded in its capacity to increase access to markets and exert positive effects on the spatial distribution of economic activity (Redding and Sturm 2008). Transportation networks increase market access, and economic development is more likely to occur in places with more and better transportation infrastructure. In theory, by improving access to urban markets, highspeed rail increases employment, wages, and productivity; encourages agglomeration; and boosts regional and local economies. Empirical evidence of high-speed rail’s impact around the world tends to support the following theoretical arguments for high-speed rail’s economic beneﬁts.

#### HSR boosts the economy through many methods

Todorovich, director of America 2050 and assistant visiting professor at the Pratt institute Graduate center for planning and Environment. Schned, associate planner for America 2050 and part-time lecturer at the Edward J. Bloustein, School of Planning and Public Policy at Rutgers university, and Lane, Senior fellow for urban design at Regional Plan association 2011

(Pertra, Daniel, and Robert, September 16, Lincoln Istitute of Land Policy, “High-Speed Rail: nternational Lessons for US Policymakers, <http://www.midwesthsr.org/sites/default/files/pdf/Lincoln_Policy_Institute_HSR_2011.pdf> July 1st, MDRJ)

High-speed rail provides a range of potential transportation beneﬁts, including greater speed, safety, frequency, and reliability of ground transportation, and brings cities and their regions closer together by shrinking time distances and effectively increasing access to markets. This increased access expands economic productivity and labor markets, with beneﬁts for businesses and workers, and promotes spatial agglomeration of businesses in related industries. High-speed rail can also boost tourism and visitor spending, and when coordinated with other strategies it can promote urban regeneration. The environmental beneﬁts of high-speed rail depend on several conditions: strong ridership, clean energy sources to power trains, and mode shift from less efﬁcient forms of transportation

#### HSR increase econ-California Proves

Ball, CEO of Webcor Builders, Cush, CEO of Virgin America, 2012 (Andy & David, 07-01-2012,Daily Democrat, High Speed Rail is Right for California, http://www.dailydemocrat.com/guestopinions/ci\_20983929/high-speed-decisions, dated accesed 7/3/12,DD)

In the midst of the debate surrounding high-speed rail, the project remains a top priority to a diverse set of business, labor, civic, transportation and community organizations throughout California. High-speed rail development is an essential component of a forward-looking economic agenda that will immediately bolster California's job outlook and improve our economy in the long-term. Initial high-speed rail investments in the Central Valley, will immediately create thousands of jobs and spur growth in businesses that directly and indirectly support the project. In addition to the 100,000 job-years generated by the Central Valley project, high-speed rail investments in Caltrain electrification will result in almost 9,600 direct construction job-years -- a "job-year" being one job lasting for a year -- at a time when we need them most. In addition, the economic benefits from improved rail service between the two economic powerhouses of San Francisco and Silicon Valley are invaluable to our regional economy. The big obstacle -- and it is a legitimate one -- is the state's economic outlook. How can we undertake a project like this in the current economy? As the country experienced during the Great Depression, real investment in infrastructure helped put people back to work and built a lasting foundation for the economy to grow on. High-speed rail is a tangible project that will spur job growth, improve the lives of millions of Californians and help create a transport infrastructure for the state that supports the 21st century economy. Starting the high-speed rail project will also generate jobs and material sales, which in turn result in more income and sales tax revenues flowing to the state during construction to improve the near-term budget situation. Delaying or canceling high-speed rail would make the budget situation worse, not better, even without taking into account the cost of alternative transportation like highway and airport expansion -- or the cost of inaction such as increased traffic, lost productivity and the environmental impacts of the current system. Beyond the near-term benefits related to jobs and the budget, we can't lose sight of the bigger picture: a strong transportation system that connects our families, our regional economies, our businesses and our workers so that we can realize our full economic potential. Decades ago, businesses came to California in significant part because of the world-class infrastructure. Today, the outmoded system impedes our global competitiveness and makes recovery more difficult. High-speed rail is a critical part of the solution to our overtaxed transportation systems. For the Bay Area, canceling high-speed rail would also mean canceling critical Caltrain upgrades. This is unacceptable to Silicon Valley businesses. The Silicon Valley Leadership Group is among those that believes the new high-speed rail business plan contains an intelligent strategy of early investments in critical urban rail systems -- doing more for less. To forgo the investments in Caltrain could lead to a regional transportation crisis at time when the economy is just starting to take off again and demand for Caltrain is soaring.

#### HSR boosts the economy

Dutzik, Senior Policy Analyst with Frontier Group specializing in energy, transportation, and climate policy, Kaplan, Analyst with Frontier Group, Baxandall, Federal Tax and Budget Policy Analyst with U.S 10 (Tony, Siena, Phineas,2010, U.S. PIRG Education Fund, “Why Intercity Passenger Rail?,” The Right Track: Building a 21st Century High-Speed Rail System for America, , http://americanhsra.org/whitepapers/uspirg.pdf, Accessed 07-5-2012, DD)

Passenger rail will boost America’s economy. The task of building out the nation’s high-speed passenger rail network is estimated to create up to 1.6 million construction jobs, and can provide a needed shot in the arm for America’s struggling manufacturing sector. Economic growth is also spurred by making travel easier between cities, fostering regional business connections and encouraging exchanges of information in the emerging “knowledge economy.” Investments in passenger rail can also reduce the need for costly investments in highways and airport capacity.

#### HSR increase economic activity

Dutzik, Senior Policy Analyst with Frontier Group specializing in energy, transportation, and climate policy, Kaplan, Analyst with Frontier Group, Baxandall, Federal Tax and Budget Policy Analyst with U.S 10 (Tony, Siena, Phineas,2010, U.S. PIRG Education Fund, “Why Intercity Passenger Rail?,” The Right Track: Building a 21st Century High-Speed Rail System for America, , http://americanhsra.org/whitepapers/uspirg.pdf, Accessed 07-5-2012, DD)

Building a modern passenger rail network will be a boost to America’s economy. Besides the jobs created in upgrading our railways, making connections between our cities quicker and more convenient will better equip the country for the 21 st century economy. The 19 th century was characterized by the phenomenal growth of America’s cities. Chicago, a town of less than a thousand people in the 1830s, grew to be the fifthlargest city in the world by 1900. 16 Other cities, from New York to St. Louis, experienced similar meteoric rises. The 20 th century, on the other hand, was characterized by the growth of suburbia and the development of metropolitan areas, which were knitted together by mass transit and, later, by highways. Today, many American metropolitan areas have far more people living in their suburbs than in the central city. Some analysts see the 21 st century as the era of the “megaregion”—areas of the country in which formerly distinct metropolitan areas are now merging into contiguous zones of integrated economic activity. The Boston-New York-Philadelphia-Baltimore-Washington, D.C.-Richmond corridor along the East Coast is the most well-known of these regions, but experts have identified roughly 10 others (see Figure 2, next page). 17 These 11 regions include more than 70 percent of the nation’s population and the vast bulk of its economic activity. 18 The development of economically successful regions depends upon the ability to share information and insights quickly and conveniently. The growth of the Internet and other forms of telecommunication has not replaced the vital role of face-toface interactions in generating new ideas and increasing economic productivity. Inperson business and technology meetings are considered essential for building relationships and trust. Consider the benefits gained by students in Cleveland who come to hear a lecture from a university professor in Chicago, or of employees from throughout the Southeast called in for a one-day sales training in Atlanta.

#### High Speed Rail will create Jobs and increase Investment Opportunities

American Public Transportation Association 2011

(Federal Investment in High-Speed Rail Could Spur 1.3 Million Jobs

http://www.apta.com/mediacenter/pressreleases/2011/Pages/110406\_HSR\_Business.aspx)

In addition to the thousands of new construction jobs, investments in high-speed rail will jumpstart the U.S. economy. The Economic Development Research Group for the U.S. Conference of Mayors studied the business impact of high-speed rail investment in different urban regions. For example, in Los Angeles, CA, high-speed rail investment generates $7.6 billion in business sales and $6.1 billion in Chicago, IL. “Federal high-speed rail investment is a strong driver in getting private companies to invest,” said Kevin McFall, Senior Vice President at Stacy and Witbeck Inc., a leading public transit construction firm. “This program can be a shot in the arm for the manufacturing industry. These high-speed rail projects will give us the opportunity to put people to work building the rail infrastructure this country desperately needs.” “U.S. businesses have been known for their cutting edge technologies and innovations, said Jeffrey Wharton, President of IMPulse NC. “We need to put this expertise to work, providing business and employment opportunities while catching up with the rest of the world in high-speed rail and its associated benefits.” “We are excited about the prospect of putting Americans to work building the rail tracks and equipment that will keep America’s economic recovery moving forward,” said Charles Wochele, Vice President for Industry and Government Relations at Alstom Transport. “We look forward to partnering with the federal and state governments to ensure these projects get off the ground.”

#### **HSR provides better transportation and expands markets**

Todorovich, Director of America 2050, Schned, associate planner for America 2050, Lane, Senior Fellow for urban designat Regional plan Association, 2011

(Petra, Daniel, Robert, September 16, 2011, Lincoln Institute of Land Policy, “High-Speed Rail international lessons for U.S. Policy Makers”, http://www.midwesthsr.org/sites/default/files/pdf/Lincoln\_Policy\_Institute\_HSR\_2011.pdf, TRH)

High-speed rail provides a range of potential transportation benefits, including greater speed, safety, frequency, and reliability of ground transportation, and brings cities and their regions closer together by shrinking time distances and effectively increasing access to markets. This increased access expands economic productivity and labor markets, with benefits for businesses and workers, and promotes spatial agglomeration of businesses in related industries. High-speed rail can also boost tourism and visitor spending, and when coordinated with other strategies it can promote urban regeneration. The environmental benefits of high-speed rail depend on several conditions: strong ridership, clean energy sources to power trains, and mode shift from less efficient forms of transportation.

#### Federal investment stimulates private sector

APTA 11

(APTA - American Public Transportation Association; nonprofit international association of 1,500 public and private member organizations; 4/6/2011; “Federal Investment in High-Speed Rail Could Spur 1.3 Million Jobs”; <http://www.apta.com/mediacenter/pressreleases/2011/Pages/110406_HSR_Business.aspx>; Kristof)

“Federal high-speed rail investment is a strong driver in getting private companies to invest,” said Kevin McFall, Senior Vice President at Stacy and Witbeck Inc., a leading public transit construction firm. “This program can be a shot in the arm for the manufacturing industry. These high-speed rail projects will give us the opportunity to put people to work building the rail infrastructure this country desperately needs.”

#### HSR creates jobs and stimulates new investment

IHSRA, Indiana High Speed Rail Association, 2011

(Indiana High Speed Rail Association, 2011, “High Speed Rail: Experience the Benefits”, <http://www.indianahighspeedrail.org/economic.html>, 7/3/12, ML)

Rail travel improves employee productivity and good rail access facilitates new national and international business. The orthopedics industry has a significant presence in Warsaw, Indiana. Faced with the challenging reality of operating a global business a significant distance from an international airport, OrthoWorx commissioned a study to evaluate the economic impact benefits of a high speed rail connection from Warsaw, Indiana to O'Hare International Airport in Chicago. Their findings indicated that high speed rail would greatly enhance the orthopedics industry and the local economy in general.[5] Time is a precious commodity. Crowded airports with recurring delays and limited ground transportation options are factors that discourage business investment and commercial activity. Though Chicago is a hub of national and international business, its airports and supporting highway systems are some of the most congested in the nation. [6] With a high speed rail connection to Chicago; Gary, South Bend, Fort Wayne, Lafayette, or Indianapolis could position themselves as much less-delayed conduits for business travelers headed for Chicago meetings, potentially becoming an alternative location for such gatherings and generating new business and investment. Added Business Investment and Job Creation. Rail development will create jobs and stimulate new investment-and not just in the rail industry. The MWRRI TEMS study reports that development of a high-speed rail network would directly generate 4,540 permanent new jobs for Indiana and $86 million in extra household income.[7] Improving connections between urban areas would increase access to employment options and swell the pool of qualified job candidates for employers, while also increasing access to the goods and services provided in each of the connected regions. Development of high speed rail would stimulate transit oriented development in and around multi-modal transportation stations. The proximity of a transportation hub and the addition of restaurants and other amenities would increase the value of surrounding business locations and housing stock. [8] There is usually significant intermodal activity in and around a major transportation hub, and if done well, a high speed rail presence in a transportation hub would likely increase the positive leverage and the economic impact of the investment in all linked transit modes.

#### High Speed Rail Boosts Economy, Creates Jobs, and Provides a Foundation for Econ Prosperity

Lytton, Board of Directors of Californians for High Speed Rail, 2012

(Dennis, 7-4-12, High-speed rail boosts economy, <http://www.sbsun.com/pointofview/ci_21005261/high-speed-rail-boosts-economy>, GHK)

Investment in high-speed rail will actually help to reverse the downward economic spiral that leads to deficits and long-term debt. How can this be? One word: jobs. The project will create an estimated 450,000 direct job-years throughout its lifetime, as well as a million job-years from all economic activity generated by the statewide project. It is the lack of jobs that is causing our state's budget crisis as tax revenues have plummeted while the unemployed draw on public services. With high-speed rail starting construction next year, the huge number of new jobs generated will dramatically increase tax revenues flowing into the state budget. At a time when elected officials should be prioritizing how to best improve our job prospects and shore up the state's budget, high-speed rail makes perfect sense. Over the long-term, high-speed rail provides a foundation for ongoing economic prosperity because it will dramatically improve transportation access around the state and free us from volatile fuel costs.

#### High Speed Rail Creates Jobs and Benefits New Businesses

Lytton, Board of Directors of Californians for High Speed Rail, 2012

(Dennis, 7-4-12, High-speed rail boosts economy, <http://www.sbsun.com/pointofview/ci_21005261/high-speed-rail-boosts-economy>, GHK)

High-speed rail will be a tremendous benefit for new businesses looking to locate in California and for homegrown businesses looking to expand. As a state, we need to solidify ourselves as the place to do business. That means having world-class infrastructure that efficiently moves people. In our region, the high-speed rail project will invest well over a billion dollars of Proposition 1A funds to improve existing rail lines that will connect seamlessly to the high-speed rail system. Take our heavily used San Bernardino to downtown Los Angeles Metrolink line, which is eligible for funds to improve speed and capacity. Rather than hedge on the high-speed rail project, our leaders need embrace it so these funds can be unlocked for improvement now to our existing rail lines. These critical projects, which lay the foundation for high-speed rail while improving the lives of millions of commuters, won't happen if the state does not move forward with the high-speed rail project. As it's always been, high-speed rail is a "solutions-based" idea at a time when California travelers have nothing but questions. If we're going to be serious about reclaiming our leadership, high-speed rail is an essential addition to our menu of transportation options, and one that is long overdue. It's proven worldwide, utilizes existing technologies, and fosters cleaner travel. No one supports government waste, and where it exists, it should end. But high-speed rail development does not symbolize an irresponsible short- or long-term investment. It addresses important challenges that are stifling job creation, economic growth, productivity, our environment, and overall quality of life. Government should seek out productive, responsible investments that provide future opportunities for all of us. High-speed rail exemplifies this. California has always been the home of solutions. Now it needs to be the home to real economic recovery. High-speed rail helps get us there. Let's get started now.

#### HSR Benefits Private Companies – Amtrak

Thompson, MBA, US Department of Transportation, and World Bank, 1994

(Louis, 8-94, Japan Railway and Transport Review, High-Speed Rail (HSR) in the United States – Why Isn’t There More?, <http://www.jrtr.net/jrtr03/pdf/f32_tho.pdf>, 7/5/12, GHK)

Fortunately, the crisis eventually generated its own solutions. First, Amtrak was created in 1970 as a way to get the rail passenger service (planning, management and deficits) onto the agenda of the Federal and state governments. As a result, passenger services no longer cause the freight carriers to lose money. Amtrak is operated (for the most part) as if it were a private company, and nether its rates nor its service quality are regulated by government. Although Amtrak is required to operate a designated network, the government pays its deficits and meets some of its capital needs. Next, many of the bankrupt freight carriers were taken over by the Federal Government restructured, and subsequently privatized, and they succeeded rather well. Finally, the rail freight and trucking industries were substantially deregulated in 1981/82. As a result, the overall USA freight rail industry is probably in the best shape in its history.

#### High Speed Rail Creates Thousands of Jobs – Acts As a Stimulus For Depressed Areas

Merchant, Business/Corporate Responsibility, 2011

(Brian, 3-16-11, TreeHugger: A Discovery Company, “Rejecting High Speed Rail Hurts the US Middle Class,” <http://www.treehugger.com/corporate-responsibility/rejecting-high-speed-rail-hurts-the-us-middle-class.html>, 7-10-12, GHK)

In case you haven't heard, there's a weird political war going on over high speed rail: Three governors have flat-out rejected funding to build projects in their states, primarily to buck Obama, who's made rail his legacy project, and to flaunt their alleged dedication fiscal austerity. Then, conservative intellectual George Will wrote a bizarre column asserting that supporting high speed rail was a form of liberal mind control. Today, the federal government had to take back the funding it dedicated to rail in Florida, after Governor Rick Scott denied it. But all of this wrangling just obscures the fact that each of these projects would have powerful and immediate benefits: they would create thousands of jobs, and act as regional stimulus for depressed areas that could use the help right now. In fact, denying these high speed rail projects is a major detriment to America's middle class. Transit Secretary Roy Lahood has an op-ed in the Hill today, where he writes: "People often ask, 'Why are President Obama and Vice President Joe Biden so devoted to high-speed rail?' I have a simple answer: Jobs, jobs and jobs." From there, he gives the standard case for rail-as-stimulus: Investing $10 billion in rail would create 85,000 jobs, and approving Obama's 6-year plan would create 500,000 more. (Those numbers come from the Council of Economic Advisers)

#### High Speed Rail Benefits the Economy in Multiple Ways – Creates New Capacities and Balance in Transportation Systems

Todorovich and Schned, Director and Associate Planner, 2011

(Petra and Dan, 7-8-12, <http://www.rpa.org/2011/09/spotlight-vol-10-no-15-high-speed-rail-can-work-here-despite-setbacks.html>, GHK)

We found that in more than a dozen countries across the globe, high-speed rail has created new capacity and balance in regional transportation systems by providing passengers with safe, efficient, and reliable ways to travel between urban population and employment centers. By increasing access to markets, high-speed rail services bring the cities within megaregions closer together, which boosts worker productivity, expands labor and job markets, and makes industries more specialized and competitive due to the agglomeration effects afforded by the "virtual proximity" provided by high-speed rail. High-speed rail also promotes urban regeneration, increases tourism and visitor spending, and operates with greater energy efficiency than other competing modes.

#### HSR stations create more visitor spending

Todorovich, director of America 2050 and assistant visiting professor at the Pratt Institute Graduate Center for Planning and the Environment, Schned, Associate planner for America 2050 and part-time lecturer for planning at the Edward J. Bloustein School of Planning and Public Policy at Rutgers University, and Lane, Senior fellow for urban design at Regional Plan Association, 2011

(Petra, Daniel, and Robert, September, 16, Lincoln Institute of Land Policy, “High-Speed Rail: International Lessons for US Policymakers

<https://www.lincolninst.edu/pubs/dl/1948_1268_High-Speed%20Rail%20PFR_Webster.pdf>, July 1, BLE)

Just as airports bring visitors and their spending power into the local economy, high-speed rail stations attract new tourists and business travelers who might not have made the trip otherwise. A study by the U.S. Conference of Mayors (2010) concluded that building high-speed rail would increase visitor spending annually by roughly $225 million in the Orlando region, $360 million in metropolitan Los Angeles, $50 million in the Chicago area, and $100 million in Greater Albany, New York.

### **Econ – HSR Leads to Savings**

#### HSR Will Pay for the $600 Billion cost itself

Kunz, President And CEO of the U.S. High Speed Rail Association, 2011

(Andy Kunz, March 10, 2011, Yale Environment 360, “U.S. High-Speed Rail: Time to Hop Aboard or BE left Behind”, accessed 7/72012, TRH)

Enhancing U.S. energy security is just one reason the country needs a state-of-the-art high-speed rail system, which by 2030 could transport millions of people each day between America’s cities. A national high-speed rail system would generate millions of jobs; help revive the country’s manufacturing sector by creating a new industry producing the trains, steel, and related components; alleviate pressure on a crumbling transportation infrastructure; and lessen the ever-worsening congestion on America’s highways and at its airports, where delays cause an estimated $156 billion in losses to the U.S. economy annually. And then there is climate change and the large-scale reduction of CO2 emissions that would result from the creation of an interstate high-speed rail system and the expansion of regional commuter rail systems. As a high-speed rail network spreads across the U.S. in the coming decades, the costs of operating the national transportation system will decline each year to the point where the savings will eventually exceed the estimated $600 billion cost of building the rail system. Although public funds will be used to cover much of the construction costs, the network will perform best if operated by private companies.

#### Mixed Systems can save money

Todorovich, director of America 2050 and assistant visiting professor at the Pratt institute Graduate center for planning and Environment. Schned, associate planner for America 2050 and part-time lecturer at the Edward J. Bloustein, School of Planning and Public Policy at Rutgers university, and Lane, Senior fellow for urban design at Regional Plan association 2011

(Pertra, Daniel, and Robert, September 16, Lincoln Istitute of Land Policy, “High-Speed Rail: nternational Lessons for US Policymakers, <http://www.midwesthsr.org/sites/default/files/pdf/Lincoln_Policy_Institute_HSR_2011.pdf> July 1st, MDRJ)

High-speed rail did not catch on right away, however. It was not until 1981 that France introduced its TGV Sud-Est line, Europe’s ﬁrst high-speed rail line, connecting Paris with Lyon, France’s second largest urban area. Operating at a speed of 168 mph, the line reduced travel time to two hours for the 280-mile journey. France was able to lower construction costs by adopting a mixed high-speed rail system that utilizes conventional tracks on the approaches to main stations to avoid major disrup- tions due to construction and unnecessary scarring of the urban fabric

#### HSR saves land and money on road constructions in the future

American Public Transportation Association 2011

(February, The Case for Business Investment in high-speed and Intercity Passenger Rail, <http://www.apta.com/resources/reportsandpublications/documents/HSRPub_final.pdf>)

Providing Balance to the Transportation System: In an illustrative example, the University of Pennsylvania Urban Design Studio found that 1 million fewer acres of land would need to be developed in the I-4 Corridor than otherwise would result from current growth trends over the next 40 years given a sound transportation investment scenario including high-speed rail and transit.21 The high-speed rail and transit-based scenarios would result in significant savings in road investments. Cumulative savings in new road construction costs of $178 billion by 2030 and $270 billion by 2050 are projected.

#### HSR is more cost-effective than other modes of transportation

Parsons Brinckerhoff, international engineering and management firm, 2011

(SEPTEMBER, High Speed Rail, <http://www.pbworld.com/pdfs/publications/pb_network/pbnetwork73.pdf>)

One of the principal stumbling blocks in developing HSR systems from a technological standpoint is cost. High-speed rail is very expensive to deploy. Unfortunately, this is a fact of life, and while advances in technology may lower costs in the future, recent history indicates that infrastructure and vehicle system costs will continue to rise despite improved methods of construction and enhanced design and manufacturing techniques. This is true outside the U.S., as well. The good news is that other competing transportation systems face similar, if not greater, cost pressures, and HSR is increasingly becoming the most cost-effective means of meeting the rising demand for intercity passenger transportation. Thus, while cost is an important issue, and ways of economizing are always being sought, cost should not be a long-term impediment to greater deployment of HSR systems.

#### HSR Is Cost Effective – Extends Benefits of Easier Less Expensive Travel and Availability of Jobs

Thompson, MBA, US Department of Transportation, and World Bank, 1994

(Louis, 8-94, Japan Railway and Transport Review, High-Speed Rail (HSR) in the United States – Why Isn’t There More?, <http://www.jrtr.net/jrtr03/pdf/f32_tho.pdf>, 7/5/12, GHK)

It's been hard to justify high-speed rail (HSR) projects in terms of conventional cost-benefit analysis. But, it may be time to rethink--and broaden--the way we think of the benefits of HSR. HSR's benefits are usually thought of in terms of lowering transport costs by reducing problems like gridlock, pollution, and travel time. But the real benefit of HSR may turn on its ability to expand economic growth, according to a new analysis by my colleagues at the Martin Prosperity Institute. There are three main mechanisms through which high-speed rail can help expand the economy, according to the MPI study. First, HSR expands the labor pool available to firms, bringing talented workers from nearby centers within commuting distance and thus expanding the quantity and quality of available employees. Second, HSR makes more jobs available to workers without making them have to relocate and move to a new home. Third, HSR extends the benefits of other expensive, productivity-enhancing infrastructure such as airports across broad regions. International airports, major research universities, and reference libraries are all more financially viable and internationally competitive when they serve a larger population. High-speed rail allows them to build the scale they need to achieve world-class excellence and also spreads their high costs across a wider population.

#### High Speed Rail Drives Business and Makes Travel More Efficient

Madigan, B.A., 2010

(Tom, 7-6-10, Will High-Speed Rail Drive Business?, <http://transportation.nationaljournal.com/2010/07/will-highspeed-rail-drive-busi.php>, GHK)

Does a recent report by the U.S. Conference of Mayors touting the economic benefits of high-speed passenger rail put to rest questions about HSR's value as a business engine? The report focused on four hub cities: Albany, N.Y.; Chicago; Los Angeles; and Orlando. Despite the differences of these hubs, the report found that high-speed rail networks had similar effects in all of them, including expanding markets; making business travel more efficient; and encouraging mixed-use development. Among its conclusions, the report argued for looking at these networks "in the broader context of a changing economy" that includes more long-distance tourism and business travel, and ever-wider markets and supply chains.In 2035, the report says, high-speed rail networks around these four hubs could generate as much as $19 billion in new business.

#### HSR yields economic benefits and will pay for itself

ELPC, Environmental Law and Policy Center, 2001

(Environmental Law and Policy Center, 1/31/01, “Benefits of high speed rail”,http://elpc.org/benefits-of-high-speed-rail, 7/3/12, ML)

For the City of Chicago, a high speed rail hub will have the equivalent economic impact of a medium-sized airport located in the heart of the central business district – without having to displace a single office. The Midwest’s railcar manufacturing industry will prosper as a result of the addition of high-speed rail to the region. As the redevelopment of train stations in Washington D.C. and Kalamazoo have demonstrated, train terminals can become the focal points for commercial redevelopment and promote substantial new development in surrounding areas. A study for the City of Chicago estimated that high speed rail would bring $8-10 billion dollars of new economic activity to Chicago. A high speed rail network pulls together the regional economy and promotes intra-regional business growth. The economic impact of Midwestern intra-regional trade greatly exceeds the potential benefits of increased trade with Canada and Mexico spurred by NAFTA. The development of improved rail service can provide a significant boost to travel and tourism by facilitating weekend leisure trips by families from smaller towns to the major cities and vice versa. Cost-effective Once built, high-speed rail in the Midwest will pay for itself. Every dollar of cost yields between $1.70 and $2.50 of benefits

### **Econ – HSR K2 Regional Prosperity**

#### HSR has the potential to bring economic prosperity to a region. China and Europe prove

CALPIRG, a consumer group that researches public issues about health and safety. ,2010

(June, CALPIRG, “Next Stop: California The Benefits of High-Speed Rail Around the World and What’s in Store for California,” http://cdn.publicinterestnetwork.org/assets/ff178505134e5feffbd9dc8faf2ece7d/Next-Stop-California.pdf 7/4/12, MDRJ)

High-speed rail stations bring with them the potential for economic development, serving as an attractive location for stores and offices and increasing land values in the near vicinity. The success of development near high-speed rail stations, however, depends on where the stations are located and the quality of planning for station-area development. A high-speed rail line built in a lightly traveled corridor, or with stations High-Speed Rail Investment in China T he idea that investment in high-speed rail can spur job creation and reinvigorate the economy is not limited to the United States. China, driven by concerns about factory unemployment during the recent global recession, has embarked on the world’s most ambitious program of high-speed rail construction—creating jobs today while laying the groundwork for future economic growth. The Chinese plan includes the construction of 42 high-speed rail lines. When the recession hit, China accelerated the timetable for finishing the system from 2020 to 2012, dedicating $100 billion to the project. More than 100,000 workers are involved in construction of the line connecting China’s two largest cities, Beijing and Shanghai.

#### High Speed Rail will benefit the Nature of Regional Economies

Federal Railroad Administration 10

(National Rail Plan: Moving Forward

<http://www.fra.dot.gov/downloads/NRP_Sept2010_WEB.pdf>)

According to a report by the Center on Globalization, Governance and Competitiveness, the U.S. rail market is the most open market in the world. A commitment to developing a 21st century long-term passenger rail network will provide a significant boost to the manufacturing sector, creating green, highwage jobs for thousands of people. Additionally, well over a million people could be employed in constructing the network, and thousands more in operations and maintenance. Beyond these direct economic effects, high-speed rail could also have a significant influence on the nature of many regional economies. These benefits will come from: (1) added economic output; (2) earnings associated with new jobs; and (3) efficiency gains (including land use efficiencies). Los Angeles County estimates that the total financial payback of California’s high-speed rail network, over the life of the system, will account for 2-4 percent of its annual gross regional product. Indeed, the annual benefits for Los Angeles alone are expected to be greater than the total value of State bonds that will be used to initiate California’s entire high-speed rail network

#### HSR spreads around the economic benefits due to faster traveling

Todorovich, director of America 2050 and assistant visiting professor at the Pratt institute Graduate center for planning and Environment. Schned, associate planner for America 2050 and part-time lecturer at the Edward J. Bloustein, School of Planning and Public Policy at Rutgers university, and Lane, Senior fellow for urban design at Regional Plan association 2011

(Petra, Daniel, and Robert, September 16, Lincoln Institute of Land Policy, “High-Speed Rail: international Lessons for US Policymakers, <http://www.midwesthsr.org/sites/default/files/pdf/Lincoln_Policy_Institute_HSR_2011.pdf> July 1st, MDRJ)

High-speed rail enhances agglomeration economies by creating greater proximity between business locations through shrinking time distances, especially when the locations are within the rail-friendly 100 to 600 mile range. Agglomeration economies occur when ﬁrms beneﬁt from locating close to other complementary ﬁrms and make use of the accessibility to varied activities and pools of skilled labor. The high-speed train station and surrounding development in Lille, France. High-speed rail has also been described as altering the economic geography of megaregions. By effectively bringing economic agents closer together, high-speed rail can create new linkages among ﬁrms, suppliers, employees, and consumers that, over time, foster spatial concentration within regions (Ahlfeldt and Feddersen 2010). This interactive process creates net economic gains in addition to the other economic beneﬁts described here.

#### HSR enhances agglomeration which improves economic gains

Todorovich, director of America 2050 and assistant visiting professor at the Pratt Institute Graduate Center for Planning and the Environment, Schned, Associate planner for America 2050 and part-time lecturer for planning at the Edward J. Bloustein School of Planning and Public Policy at Rutgers University, and Lane, Senior fellow for urban design at Regional Plan Association, 2011

(Petra, Daniel, and Robert, September, 16, Lincoln Institute of Land Policy, “High-Speed Rail: International Lessons for US Policymakers

<https://www.lincolninst.edu/pubs/dl/1948_1268_High-Speed%20Rail%20PFR_Webster.pdf>, July 1, BLE)

High-speed rail enhances agglomeration economies by creating greater proximity between business locations through shrinking time distances, especially when the locations are within the rail-friendly 100 to 600 mile range. Agglomeration economies occur when firms benefit from locating close to other complementary firms and make use of the accessibility to varied activities and pools of skilled labor. High-speed rail has also been described as altering the economic geography of megaregions. By effectively bringing economic agents closer together, high-speed rail can create new linkages among firms, suppliers, employees, and consumers that, over time, foster spatial concentration within regions (Ahlfeldt and Feddersen 2010). This interactive process creates net economic gains in addition to the other economic benefits described here.

HSR Expands Economic Development Across Large Areas – Spurs Revitalization of Cities, Fosters Economic Development, Links Cities Together, Broadens Labor Markets

HSRA, US High Speed Rail Association, 2012

(US High Speed Rail Assocation, 7-8-12, <http://www.ushsr.com/benefits/economic.html>, GHK)

High speed rail delivers fast, efficient transportation so riders can save time, energy, and money. HSR is extremely reliable and operates in all weather conditions. HSR is not subject to congestion, so it operates on schedule every day without delay - especially during rush hour and peak travel times. HSR spurs the revitalization of cities by encouraging high density, mixed-use real estate development around the stations. HSR also fosters economic development in second-tier cities along train routes. HSR links cities together into integrated regions that can then function as a single stronger economy. HSR broadens labor markets and offers workers a wider network of employers to choose from. HSR encourages and enables the development of technology clusters with fast easy access between locations. HSR also expands visitor markets and tourism while increasing visitor spending. The many benefits HSR delivers spread throughout regions that have HSR, encouraging economic development across a large area.

#### HSR improves worker mobility and business competition

**Todorovich, director of America 2050 and assistant visiting professor at the Pratt Institute Graduate Center for Planning and the Environment, Schned, Associate planner for America 2050 and part-time lecturer for planning at the Edward J. Bloustein School of Planning and Public Policy at Rutgers University, and Lane, Senior fellow for urban design at Regional Plan Association, 2011**

(Petra, Daniel, and Robert, September, 16, Lincoln Institute of Land Policy, “High-Speed Rail: International Lessons for US Policymakers

<https://www.lincolninst.edu/pubs/dl/1948_1268_High-Speed%20Rail%20PFR_Webster.pdf>, July 1, BLE)

The time savings and increased mobility offered by high-speed rail enables workers in the service sector and in information exchange industries to move about the megaregion more freely and reduces the costs of face-to-face communication. This enhanced connectivity boosts worker productivity and business competitiveness, leading to higher wages (Greengauge 21 2010). By connecting more communities to other population and job centers, highspeed rail expands the overall commuter shed of the megaregion. The deepened labor markets give employers access to larger pools of skilled workers, employees access to more employment options, and workers access to more and cheaper housing options outside of expensive city centers (Stolarick, Swain, and Adleraim 2010).

### **Econ – HSR boosts Demand**

#### Demand for HSR is the key internal link to boost 250 private manufacturing facilities

APTA 11

(APTA – American Public Transportation Association; 2011-2; “The Case for Business Investment in High-Speed and Intercity Passenger Rail”; Transportation Research Board database; accessed July 3)

Duke University looked at this growing market in its report U.S. Manufacture of Rail Vehicles for Intercity Passenger Rail and Urban Transit. 7 It found that **an extensive supply chain for rail manufacturing already exists** in large part, **and** that this **geographically diverse network stands ready to respond to a spark in demand**. America has a multiple market tailor-made for highspeed rail. **This supply chain includes at least 249 U.S. manufacturing locations in 35 states**. The report identified a total of **15 railcar builders, 5 locomotive builders, and 159 component suppliers**. **These ranged from small firms** with fewer than 20 employees and only one manufacturing site, **to large, diverse firms** with thousands of employees and several relevant U.S. manufacturing locations. The report also noted that the U.S. value chain includes several gaps – specific manufacturing activities that are not typically performed in the United States. The **White House and the** U.S. **Department of Transportation** **consider** passenger **rail to be central to an economic strategy that will lead to hundreds of thousands of forward looking clean energy jobs.**

## ADV – Competitiveness

### Uniqueness – Competitiveness

#### U.S. at risk of losing global competitiveness in status quo

Kunz, president and CEO of the U.S. High Speed Rail Association, ‘11

(Andy, 3/11, U.S. High-Speed Rail: Time to Hop Aboard or Be Left Behind, 2011 <http://e360.yale.edu/feature/us_high-speed_rail_time_to_hop_aboard_or_be_left_behind/2378/>)

The U.S. must build a national high-speed rail network if it hopes to maintain its competitiveness in the world economy. China and Europe are now moving ahead with their high-speed rail networks at breakneck speed, which means that in a decade or two they will have significantly reduced their dependence on imported oil, created tens of millions of new jobs, and saved their countries trillions of dollars by vastly improving the productivity of their economies thanks to a low-carbon transportation sector that moves people and goods at speeds that could one day hit 300 miles per hour, or more. The U.S. can be part of that future. But if more states follow the example of Florida, Wisconsin, and Ohio, the country will remain shackled by 19th- and 20th-century forms of transportation in a 21st-century world. Contemplate this image: China, Europe, Russia, South America, and other parts of the globe are streaking by at 250 miles per hour while the likes of Governor Scott are stuck in a traffic jam on an interstate, watching the trains whiz past.

#### Other countries are beating us with HSR – We need to catch up

Yaro 10 – president of the Regional Plan Association, a policy, research and advocacy group, and Professor of Practice in City and Regional Planning at the University of Pennsylvania

(Robert D. “An Investment We Have to Make,” New York Times, October 14 2010, <http://www.nytimes.com/roomfordebate/2010/10/13/will-we-ever-have-high-speed-trains/an-investment-we-have-to-make>)

For these reasons Japan, China, Taiwan and Europe -- and now Brazil, South Africa, Morocco, India and Vietnam -- already have or are building high-speed rail. Unless we build similar systems here, we will find ourselves at a growing competitive disadvantage caused by increasing congestion and inefficiency in moving people and goods. At an estimated $500 billion, a national high-speed rail system won't come cheap. But it will help enable a major expansion in the U.S. gross domestic product by mid-century, in much the same way the Interstate highways did in the 20th century. Once completed with forms of public financing, these systems can be operated and maintained by the private sector and operated at a profit. We can't afford not to build a national high-speed system. It's not the only infrastructure investment needed to secure our economic futures. But it's one that will be essential to our future mobility and competitiveness.

#### Now is the key time to act – 3 nations already ahead and 4 more developing HSR

Ghosh, International Business Times 10

(Palash R. Ghosh; International Business Times; “U.S. high-speed railway: a matter of cost and demand”; August 18, 2010; <http://www.ibtimes.com/articles/44017/20100818/rail-high-speed.htm>; accessed July 2) Kristof

Other questions also abound -- who will bear the costs of operating a sophisticated rail system? The financially beleaguered state and local authorities? Will the rail system be run by the government (like the oft-criticized Amtrak complex), or by private entities? And what will happen to Amtrak? What no one questions is that **the U.S. has fallen far behind many foreign countries in high-speed rail** technology, **particularly France, Spain and Japan. Even developing countries like India, China, Brazil and Morocco are determined to join** the **high-speed rail** sweepstakes. For example, France's highly-regarded Train à Grande Vitesse (TGV) operates 1,700 kilometers of tracks, connecting Paris to virtually all other major French cities as well as other countries, while averaging speeds of almost 175 mph with a top speed well in excess of 350 mph.

### China passing the US in rail

#### US is falling behind in infrastructure development – HSR key for America to catch up with countries like China

APTA, American Public Transportation Association, 2012

(American Public Transportation Association, January 2012, “An Inventory of the Criticisms of High-Speed Rail With Suggested Responses and Counterpoints”, <http://www.apta.com/resources/reportsandpublications/Documents/HSR-Defense.pdf>, 7/3/12, ML)

The president’s reference to the successful presence of high-speed rail in Europe and Asia has nothing to do with “keeping up with the International Joneses.” Moreover, it underscores the notion that building and operating high-speed rail is within reach and is practical . . . just look at what has been achieved in other places in the world. As to the “cost-effectiveness of high-speed rail,” the world experience, particularly in France, Japan, and now increasingly in the United Kingdom, suggests that as an alternative to building more highways or airports, and as a means of controlling future greenhouse gas emissions, both improvements to conventional passenger rail and the development of true high-speed rail, especially along both the East and West coasts, would indeed be very cost-effective alternatives. In March, 2009, the World Bank on-line newsletter “Infrastructure Investment” wrote: “In a recent report, the McKinsey Institute argued that America’s poor infrastructure is holding back its economic development. The top economist at the World Bank, Justin Lin, appears to agree. Earlier this week Lin said playing catch-up with China’s infrastructure investments would do the United States good, Bloomberg reports: ‘China averaged 9.6 percent economic growth from 1979 to 2002, as it quintupled the size of the country’s highway system to 25,000 kilometers (15,000 miles),’ he said. The U.S. could profit from following China’s lead, Lin said, noting the fastest train in the U.S., Amtrak’s Acela, took 2 hours and 46 minutes to bring him from Washington to New York this morning. In China, he said, a high-speed train would make the trip in an hour. Add one more voice to those in favor of infrastructure investment: Mary Meeker, financial analyst at Morgan Stanley and author of a new nonpartisan report called USA Inc., observes (that): “In recent decades, the United States has been spending less on productive investments, such as infrastructure and education, and more on areas of preservation, such as health care. That combination has caused America to lose its innovation edge.”

#### Now is a key time to act – delaying high speed rail will cede trade currency and economic leadership to China

Burns, international journalist and UN correspondent, 11

(Patrick Burns; international journalist and United Nations correspondent; February 1, 2011; “All Aboard for High-Speed Rail”; <http://www.policyinnovations.org/ideas/briefings/data/000194/>; accessed July 2) Kristof

Finally, **the risk of** further **procrastination on high-speed rail is part of** what President Obama has identified as **America's second Sputnik moment**. **China built its high-speed rail network**, the world's longest, in just a few years, and by 2020 it plans to cover 10,000 miles. **Americans are already concerned about losing ground to China in trade, currency, and education**. **Fast**, interconnected **railways would make China and the United States even more attractive to business** **and innovation**.

#### The US is being left behind China, prioritization of highways over the last 50 years left rail networks to deteriorate

James 11

(James, Tony; Engineering & Technology (17509637); Jul2011, Vol. 6 Issue 6, p84-86, 3p, 2 Color Photographs; EBSCO; accessed July 2) Kristof

**China is** already **rolling in the right direction**. **The country**, which has the most extensive rail network in Asia, **is getting its system ready for the future** – mainly **to ensure that it can accommodate rising freight and passenger volumes**. To this end, **China plans to expand its rail network** from the current 86,000km to 120,000km **by 2020**. An associated investment of approximately €560bn will flow mainly into the construction of high-speed rail lines. Even the United States, a country that is synonymous with car ownership is taking the plunge. In the **US**, the **rail system is largely out of date**. **Although the country has an extensive network, little has been done to improve infrastructure** in many regions **over the last hundred years**. Rural railroads, in particular, are often marked by poorly maintained lines, abandoned stations, and old and slow trains. What’s more, th**ere are no high-speed trains like those found in Europe and Asia.** **Development over the last 50 years has focused on the highway system rather than on railroads**, which has made the US the automobile nation par excellence – **with all the consequences that poses for the environment.**

#### China is ahead of US on HSR

Shahan, Executive Director of a non-profit organization promoting sustainable development and clean transportation in Charlottesville, VA,2010

(Zachary,3/13/10, Clean Technica, China Wants to Connect its High Speed Rail to Europe (Largest Infrastructure Project in History) http://cleantechnica.com/2010/03/13/china-wants-to-connect-its-high-speed-rail-to-europe-largest-infrastructure-project-in-history/

, date accessed 7/7/12, DD)

China is clearly taking the lead on high-speed rail, but it is not satisfied just to have it within its own country. It wants a straight connection to Europe on high-speed rail now. It might seem like a pipe dream if it weren’t for the fact that China is already about halfway through the construction of the largest high-speed rail (HSR) network in the world with the fastest trains in the world. With its internal projects getting closer to completion, China’s new goal is to continue on with a HSR revolution internationally in order to create two-day HSR trip times between Beijing and London (which itself might get some pretty fast trains soon)! But it is about much more than a rail connection or two to Europe.

### HSR k2 Economic Competitiveness

#### HSR is critical to reviving our competitiveness and pulling ourselves out of the current downturn

American Public Transportation Association, ’12 – non-profit that advocates for the advancement of public transportation programs in the U.S. ( “An Inventory of the Criticisms of High-Speed Rail: with Suggested Responses and Counterpoints,” January 2012, p. 24, http://www.apta.com/resources/reportsandpublications/Documents/HSR-Defense.pdf) // SP)

The intercity passenger and high-speed rail initiative was launched (by Republicans) for specifically the reasons cited by the current administration. America is growing increasingly uncompetitive with the rest of the developed (and in many cases even the developing) world. We will only pull ourselves out of the current situation by creating the means to make our nation more competitive. High-speed rail and the renewal of the nation’s rail networks are just the kinds of infrastructure projects required of these times and circumstances. The only things gained by waiting are all the bad things this initiative is designed and intended to address, not the least of which is the cost of waiting. Can you imagine what would have happened if President Eisenhower had waited for a “better time” to begin building the nation’s interstate highway system?

#### HSR’s cost-effectiveness boosts economic competitiveness

FRA, organization dedicated to: promulgate and enforce rail safety regulations; administer railroad assistance programs; conduct research and development in support of improved railroad safety and national rail transportation policy, 2009

(April, Federal Railroad Administration, “Vision For High-Speed Rail in America” http://www.fra.dot.gov/downloads/rrdev/hsrstrategicplan.pdf, accessed 7/3/12 MDRJ)

Rail is a cost-effective means for serving transportation needs in congested intercity corridors. In many cases, modest investment on existing rights-of-way can result in high-speed rail (HSR) and intercity passenger rail (IPR) service with highly competitive trip times, while also providing ancillary benefits to energy-efficient freight rail service. IPR and HSR also have a strong track record of safety in the United States and overseas. In Japan, for instance, the Tokaido Shinkansen trains have operated without a derailment or collision since the inception of operations in 1964. Foundation for economic competitiveness. America’s transportation system is the lifeblood of the economy. Providing a robust rail network can help serve the needs of national and regional commerce in a costeffective, resource-efficient manner, by offering travelers convenient access to economic centers. Moreover, investment in HSR/IPR will not only generate high-skilled construction and operating jobs, but it can also provide a steady market for revitalized domestic industries producing such essential components as rail, control systems, locomotives, and passenger cars

#### HSR complements other transportation and increases global competitiveness

California High-Speed Rail Authority 2011

(NOVEMBER 1, 2011, “California

High-Speed Rail Program Draft 2012 Business Plan”, <http://www.cahighspeedrail.ca.gov/assets/0/152/302/c7912c84-0180-4ded-b27e-d8e6aab2a9a1.pdf>, accessed 7-5-12, ET)

Around the world, high-speed rail continues to demonstrate its value as a complement to other transportation modes. It reduces transportation costs and demand for oil, mitigates highway and air traffic congestion, enhances other forms of public transportation, promotes livable communities, supports sustainability objectives, increases land values, links metropolitan regions together and with suburban and rural population centers, and spurs economic development in communities both large and small. These benefits accrue from long-term planning and careful program development and they support state policy. This is evidenced in Japan, Spain, France, and Germany, among other nations, where such benefits have been realized and the commitment to improve high-speed rail continues to enhance these countries’ transportation networks and global competitiveness

#### **It is necessary for the future of our competitiveness with other countries to build HSR**

Yaro, ’10 – president of the Regional Plan Association, a policy, research and advocacy group, and Professor of Practice in City and Regional Planning at the University of Pennsylvania

(Robert D. “An Investment We Have to Make,” New York Times, October 14 2010, http://www.nytimes.com/roomfordebate/2010/10/13/will-we-ever-have-high-speed-trains/an-investment-we-have-to-make)

For these reasons Japan, China, Taiwan and Europe -- and now Brazil, South Africa, Morocco, India and Vietnam -- already have or are building high-speed rail. Unless we build similar systems here, we will find ourselves at a growing competitive disadvantage caused by increasing congestion and inefficiency in moving people and goods. At an estimated $500 billion, a national high-speed rail system won't come cheap. But it will help enable a major expansion in the U.S. gross domestic product by mid-century, in much the same way the Interstate highways did in the 20th century. Once completed with forms of public financing, these systems can be operated and maintained by the private sector and operated at a profit. We can't afford not to build a national high-speed system. It's not the only infrastructure investment needed to secure our economic futures. But it's one that will be essential to our future mobility and competitiveness.

#### HSR allows us to compete with other countries successfully

Yaro,, 2012- Co-Chair, America 2050

(Robert Yaro, February 28, 2011, Regional Plan Association 2012, “Why High Speed Rail is Right”, <http://www.america2050.org/2011/02/why-high-speed-rail-is-right.html>, 7-5-12, ET)

What matters is that when fully realized, a national network of HSR routes serving the nation's megaregions, including the Northeast, has the potential to provide the same kind of backbone for a 21st century national mobility system that the interstate highways did in the late 20th century. In so doing, it could provide a foundation for a dramatic expansion of the economy of most of the country, underpinning America's competitiveness and livability for decades, as the Interstates have over the past half century. These investments must, of course, be complemented by new capacity in key highway corridors, airports, seaports, broadband, water, and other infrastructure systems. But along with these other investments, HSR could create a framework for metropolitan and megaregion growth and development that will allow us to compete successfully with the other industrialized and industrializing countries now making similar investments.

#### HSR boosts global competitiveness- cost-effective mode for moving goods

U.S. Department of Transportation 2010

(September,

National Rail Plan Moving Forward, http://www.fra.dot.gov/downloads/NRP\_Sept2010\_WEB.pdf)

IMPROVED CORRIDORS AND CONNECTIONS WILL ENHANCE NATIONAL ECONOMIC COMPETITIVENESS The rail system is part of a transportation network in which shippers choose the most cost-effective mode for moving goods. This may be a single mode for door-to-door service or a combination of modes where the goods move by rail for the long-haul and by truck at the origin, destination, or both. Generally, rail competes favorably with trucks at hauls beginning at around 500 to 700 miles, but has more success in the longer haul markets. Freight carried by both truck and rail travels over a series of prime corridors that cross the Nation. These corridors are depicted in Map 3. Each of these corridors handles a large percentage of the Nation’s freight and represents a lifeline of domestic economic activity. Many of the railroads’ large intermodal efforts are focused on traffic to and from ports for international trade and therefore directly affect the Nation’s ability to compete globally. Traffic in these high density corridors will continue to grow, and with that growth, the railways, ports, and highways will be even more over-burdened in the future. Improving freight rail’s intermodal market share and connections to ports supports the President’s National Export Initiative by enhancing the private sector’s ability to export.

#### HSR promotes global economic competitiveness- Industry/Oil

Parsons Brinckerhoff, international engineering and management firm, 2011

(SEPTEMBER, High Speed Rail, <http://www.pbworld.com/pdfs/publications/pb_network/pbnetwork73.pdf>)

By 2050, America’s population is projected to grow by 100 million people. That is the equivalent of adding the population of another California, New York, Texas and Florida. Yet, the capacity of today’s transportation system fails to meet our current, let alone future, demand. Traffic congestion on highways and at our airports costs the economy nearly $130 billion each year. And in many cities there is simply no room to expand roadway capacity or airport facilities. This is where rail comes into play. After decades of disinvestment, Americans want fast, efficient, affordable and reliable passenger rail, and this is critical to our nation’s future. High-speed intercity passenger rail provides a cost-effective option for travel between cities of 500 miles or less – linking major urban areas within a three hour trip time. President Obama’s vision is to connect 80 percent of Americans to an integrated high-speed intercity passenger rail network in 25 years. And, here at FRA, we are working to fulfill this vision, developing a multi-tiered passenger rail network that takes into account different market needs and geographic conditions. In doing so, we will also ensure that America’s world-class freight rail system is expanded as we build a world-class rail network. Beyond critical transportation improvements, rail investments will also enhance the global economic competitiveness of America’s cities and metropolitan regions, support domestic manufacturing activity, reduce reliance on imported oil, and create a new economic base of highly-skilled, well-paying jobs. Our “Buy America” policy ensures this new rail system will be built by an American workforce. High-speed intercity passenger rail offers an opportunity for equipment, component, and supporting manufacturers to build robust and sustainable businesses.

### HSR Reduces Congestion, solves competitiveness

#### Highways and Airlines are congested now. HSR is needed to spur economic competitiveness

US Department of Transportation, the department that oversees all Transportation in the US, 2011

(3/16, USDOT, “Jobs today, economic competitiveness tomorrow now is the time to build high-speed rail” <http://fastlane.dot.gov/2011/03/high-speed-rail-america-cant-wait-to-get-on-board.html>, 7/3/12, MDRJ)

This country has state-of-the-art highways that move people and products from one place to another. We have a safe and strong aviation sector that carries us on short hops and long hauls. We're rightly proud of the bridges and tunnels we have engineered to cross through mountains and over rivers once considered impassable. But our roadways and airports are already crowded, near or at capacity every day. If we refuse to plan ahead, we’re staring at a future where we choke our own economy, where companies can't move goods or people from place to place, where we can't compete with other nations. And building an American high-speed rail network isn't just about a vision for tomorrow. In the short-term, building this network will create manufacturing and construction jobs at a time when they are sorely needed. A report by the U.S. Conference of Mayors, projected that high-speed rail would create tens of thousands of jobs in cities and along rail corridors across the United States. With one in five American construction workers off the job, this is the moment to act. Around the country, more and more Americans get this. When they watch the Mad Fast Trains video that's sweeping the nation, they understand what "Mad Men's" Harry Crane takes as a given: "Trains make sense," he says. "They're efficient, they're convenient, they're good for jobs. We don't need to sell trains."

### HSR k2 Business Competitiveness

#### HSR uniquely boosts business competitiveness

Todorovich, director of America 2050 and assistant visiting professor at the Pratt institute Graduate center for planning and Environment. Schned, associate planner for America 2050 and part-time lecturer at the Edward J. Bloustein, School of Planning and Public Policy at Rutgers university, and Lane, Senior fellow for urban design at Regional Plan association 2011

(Petra, Daniel, and Robert, September 16, Lincoln Istitute of Land Policy, “High-Speed Rail: nternational Lessons for US Policymakers, <http://www.midwesthsr.org/sites/default/files/pdf/Lincoln_Policy_Institute_HSR_2011.pdf> July 1st, MDRJ)

The time savings and increased mobility offered by high-speed rail enables workers in the service sector and in information- exchange industries to move about the megaregion more freely and reduces the costs of face-to-face communication. This enhanced connectivity boosts worker productivity and business competitiveness, leading to higher wages (Greengauge 21 2010).

### HSR commuter shift causes freight expansion

#### HSR diverts commuters from tracks, allowing freight to fill in

Todrovich, director of America 2050, Schend, associate planner for America 2050 at Regional Plan Association, and Lane, senior fellow for urban design at Regional

Plan Association,2011

(Petra, Daniel, Robert, “High-Speed Rail International Lessons for U.S. Policy Makers”, <http://www.lincolninst.edu/pubs/1948_High-Speed-Rail>, September 2011, 7/2/12)

Capacity: By adding capacity to the railway network, high-speed rail can divert a large share of passenger rail service to new, dedicated tracks, thus freeing up capacity on the conventional rail network for freight and other intercity and commuter rail services. For example, the United Kingdom has chosen to address capacity constraints on its West Coast Main Line with the implementation of the proposed High Speed 2 (HS2) line. In Japan, the main motivation for implementing the Tokaido line between Tokyo and Osaka was to provide additional capacity to the transportation network, rather than to reduce travel times (Givoni 2006).

#### HSR trades off with commuter rail

Sonnenberg, civil enginerring @ Georgia Institute of Technology, 2010

(Anthony H., 2010, “TRANSPORTATION ENERGY AND CARBON FOOTPRINTS FOR U.S. CORRIDORS”, <http://smartech.gatech.edu/jspui/bitstream/1853/37316/1/Sonnenberg_Anthony_H_201012_phd.pdf>, 7/5/12, CNW)

As can be seen from Figure 4.18 the largest relative shift to HSR came from existing rail. This is an expected result since rather than shifting modes, existing rail travelers just shift to a faster version of the same mode. For HSR150 and HSR200 shifts from Air to HSR are relatively large as well, especially for the Pacific Northwest. This higher share for the Pacific Northwest compared to the other corridors can be explained by the smaller distances for each city pair which results in HSR travel times comparable to those for Air. In addition, the flight connections and frequencies for Eugene have a negative effect on the Air utility compared to other city pairs. For Bus and especially Auto shifts are very low. This was expected especially since the utility of the HSR mode (like Air, Rail, and Bus) is much lower mainly due to Access and Egress transportation, frequency and the need of a car at the destination.

#### HSR can open up conventional railways for freight and other economic processes

Todorovich, director of America 2050 and assistant visiting professor at the Pratt institute Graduate center for planning and Environment. Schned, associate planner for America 2050 and part-time lecturer at the Edward J. Bloustein, School of Planning and Public Policy at Rutgers university, and Lane, Senior fellow for urban design at Regional Plan association 2011

(Pertra, Daniel, and Robert, September 16, Lincoln Istitute of Land Policy, “High-Speed Rail: nternational Lessons for US Policymakers, <http://www.midwesthsr.org/sites/default/files/pdf/Lincoln_Policy_Institute_HSR_2011.pdf> July 1st, MDRJ)

By adding capacity to the railway network, high-speed rail can divert a large share of passenger rail service to new, dedicated tracks, thus freeing up capacity on the conventional rail network for freight and other intercity and com- muter rail services. For example, the United Kingdom has chosen to address capacity constraints on its West Coast Main Line with the implementation of the proposed High Speed 2 (HS2) line. In Japan, the main motivation for implementing the Tokaido line between Tokyo and Osaka was to provide additional capacity to the transportation network, rather than to reduce travel times (Givoni 2006).

## ADV – Manufacturing

### IL – Manufacturing – Demand

#### Demand for HSR is the key internal link to boost 250 private manufacturing facilities

APTA 11

(APTA – American Public Transportation Association; 2011-2; “The Case for Business Investment in High-Speed and Intercity Passenger Rail”; Transportation Research Board database; accessed July 3) Kristof

Duke University looked at this growing market in its report U.S. Manufacture of Rail Vehicles for Intercity Passenger Rail and Urban Transit. 7 It found that **an extensive supply chain for rail manufacturing already exists** in large part, **and** that this **geographically diverse network stands ready to respond to a spark in demand**. America has a multiple market tailor-made for highspeed rail. **This supply chain includes at least 249 U.S. manufacturing locations in 35 states**. The report identified a total of **15 railcar builders, 5 locomotive builders, and 159 component suppliers**. **These ranged from small firms** with fewer than 20 employees and only one manufacturing site, **to large, diverse firms** with thousands of employees and several relevant U.S. manufacturing locations. The report also noted that the U.S. value chain includes several gaps – specific manufacturing activities that are not typically performed in the United States. The **White House and the** U.S. **Department of Transportation** **consider** passenger **rail to be central to an economic strategy that will lead to hundreds of thousands of forward looking clean energy jobs.**

### I! – Manufacturing – Pharmaceuticals

#### Manufacturing new technology leads to innovation in medical devices, clean energy and pharmaceuticals – only pro-manufacturing policies solve

Swezey, Project Director at the Breakthrough Institute and McCONAGHY, Director of the Economic Program at Third Way; 11

(DEVON SWEZEY, Project Director at the Breakthrough Institute AND RYAN McCONAGHY, Director of the Economic Program at Third Way; “MANUFACTURING GROWTH: ADVANCED MANUFACTURING AND THE FUTURE OF THE AMERICAN ECONOMY”; in JOBS AND INNOVATION | OCTOBER 2011; <http://thebreakthrough.org/blog/BTI_Third_Way_Idea_Brief_-_Manufacturing_Growth_.pdf>; accessed July 3)

But, while the views of these camps are grounded in some fundamental truths, each of them also misses the underlying phenomenon that is driving these developments. The reality is that manufacturing isn’t dying—it’s changing. Even as **manufacturing** has undergone a relative decline, it **has** actually **become more important to the health of the U.S. economy**. The sector is transitioning from low-tech, labor-intensive industries toward a manufacturing sector that is technology-intensive, high-productivity, and at the heart of our nation’s innovation system. **With a wide array of breakthroughs in technology**, productivity, and management, **a new manufacturing has taken hold**. **This** new, or “**advanced**,” **manufacturing has several hallmarks that distinguish it from the** low-skilled **enterprise that still holds sway over popular conceptions of** American **manufacturing**. Today’s modern factory is heavily reliant on **technology** that **allows manufacturers to engage in more precise and increasingly productive work**. For example, today’s American manufacturing activities are likely to resemble those in General Electric’s Greenville Airfoils Facility in Piedmont, South Carolina, where workers use computer-controlled equipment to burn hundreds of tiny cooling holes into jet engine turbine blades.5 The **new manufacturing also focuses on newer, innovative industries like advanced medical devices, clean energy technologies, and pharmaceuticals**. **The move to** “**advanced**” **manufacturing signals a new era for** one of **the most** culturally and substantially **significant sectors of our economy.** **This** emerging **era requires a** new **discussion about the role of manufacturing in America’s future prosperity and a** fresh look at **the need for pro-manufacturing policies**.

#### Pharmaceutical industry is the only way to stop biological warfare

Shorett, Research Fellow at the Council for Responsible Genetics, 2004,

(Peter, “THE CRACK IN BIOSHIELD'S ARMOR”, September-December 2004, http://www.councilforresponsiblegenetics.org/ViewPage.aspx?pageId=152) Kristof

**Congress will face an uphill battle in passing what is sure to be viewed as a giveaway to the pharmaceutical industry**. A few of its provisions may significantly delay the introduction of generic drugs to treat illnesses that affect millions of U.S. voters. **Large drug companies, however, may be the only players with the necessary expertise, resources and experience to develop effective vaccines, antibiotics, and other countermeasures against biological weapons**.

## ADV – Environment

### ADV UQ – Environment

#### Current transportation infrastructure harms environment

Zaidi 7

(Kamaal, Doctor of Law, Temple Journal of Science, Technology & Environmental Law, “High Speed Rail Transit: Developing the Case for Alternative Transportation Schemes in the Context of Innovative and Sustainable Global Transportation Law and Policy”, 7/3/12, BR)

Aside from changing demographics, the CHSRA report also reveals several negative environmental impacts associated with society’s dependence upon existing modes of transport, including: - Increased energy use and dependence on petroleum - Increased emissions of air pollutants - Impacts on property and land uses - Increased suburban sprawl - Impacts to wetlands and biological resources - Effects on cultural resources, such as historic sites - Impacts on water quality - Impacts on park lands 242 - Noise and vibration impacts 243 These environmental considerations are commonly used to promote the use of high-speed rail transit in the form of feasibility studies.

### IL – Environment – Efficiency

#### **HSR more energy efficient than other modes of transportation**

Todorovich, Director of America 2050, Schned, associate planner for America 2050, Lane, Senior Fellow for urban designat Regional plan Association, 2011 (Petra, Daniel, Robert, September 16, 2011, Lincoln Institute of Land Policy, “High-Speed Rail international lessons for U.S. Policy Makers”, http://www.midwesthsr.org/sites/default/files/pdf/Lincoln\_Policy\_Institute\_HSR\_2011.pdf, TRH)

High-speed rail offers greater operating efficiency on a per passenger mile basis than competing modes, such as single-occupancy automobiles or airplanes that require significant amounts of fuel to get off the ground. For example, Shinkansen trains are estimated to use one-quarter the energy of airplanes and one-sixth that of private automobiles per passenger mile. To achieve environmental benefits, high- speed trains must maximize load factors to realize the greatest efficiencies. As high- speed rail ridership increases, so does its relative energy efficiency, whereas a high-speed train carrying no passengers ceases to be efficient in any sense. In regions where the number of total trips is not growing, high-speed rail can bring about a net reduction of energy use through mode shift by capturing passengers from automobile or airplane trips. In regions like California where population and trips are projected to keep growing, high- speed rail can help reduce the energy and climate impacts on a per passenger basis through a combination of mode shift and attracting new passengers to high-speed rail.

#### HSR is more fuel efficient than cars or planes, helps reduce foreign oil dependency and carbon emissions

Todorovich, Schned and Lane 11 (Petra Todorovich, Daniel Schned, and Robert Lane; Todorovich and Schned work in leading positions at America 2050, Lane is a senior fellow at Regional Plan Association; 09/16/2011; “High-Speed Rail International Lessons for U.S. Policy Makers”; <https://www.lincolninst.edu/pubs/dl/1948_1268_High-Speed%20Rail%20PFR_Webster.pdf>)

High-speed rail has the potential to provide greater environmental benefits and energy efficiencies than other modes of long distance travel. However, several conditions must be met to obtain these benefits. Energy efficiency and ridership: **High-speed rail offers greater operating efficiency** on a per passenger mile basis **than** competing modes, such as single-occupancy **automobiles or airplanes** that require significant amounts of fuel to get off the ground. For example, Shinkansen **trains are estimated to use one-quarter** the **energy of airplanes and one-sixth** that **of** private **automobiles** per passenger mile (JR Central 2011a). To achieve environmental benefits, highspeed trains must maximize load factors to realize the greatest efficiencies. **As highspeed rail ridership increases, so does its** relative **energy efficiency**, whereas a high-speed train carrying no passengers ceases to be efficient in any sense. In regions where the number of total trips is not growing, high-speed rail can bring about a net reduction of energy use through mode shift by capturing passengers from automobile or airplane trips. In regions like California where population and trips are projected to keep growing, **highspeed rail can help reduce the energy and climate impacts** on a per passenger basis **through a combination of mode shift and attracting new passengers** to high-speed rail. Energy mix: **High-speed rail is** the only available mode of long-distance travel that currently is **not dependent on motor fuels**. High-speed rail is powered by electricity, which is not without environmental problems depending on its source (see table 2). If it is powered by electricity generated from fossil fuels, such as coal or natural gas that discharge harmful greenhouse gas emissions, then its environmental benefits are limited. However, **electricity** is generally considered an improvement over petroleum- generated power and **provides a crucial advantage as the United States aims to reduce its dependence on foreign oil.** Amtrak’s Northeast Corridor and parts of the Keystone Corridor (connecting Harrisburg, Pennsylvania to Philadelphia) are electrified. Most other conventional passenger trains in America operate on freight rail lines and are powered by diesel fuel. Energy planning needs to be a part of the planning for high-speed rail to ensure the reduction of greenhouse gases and other harmful pollutants. Even with the current energy mix that includes fossil fuel sources, however, high-speed rail can yield significant environmental benefits. A recent study by the University of Pennsylvania (2011) found that **a new high-speed line in the Northeast Corridor, powered by electricity** from the current energy mix, **would divert** nearly **30 million riders from cars and planes, attract 6 million new riders, and still reduce** car **emissions** of carbon monoxide by more than 3 million tons annually. The system would also result in a reduction of carbon dioxide emissions if the energy mix were shifted to low carbon emitting sources.

#### HSR increases energy efficiency

Todorovich, Director of America 2050, 11

(Petra, Lincoln Institute of Land Policy, “Chapter 2: Potential Benefits of High-Speed Rail,” *High-Speed Rail: International Lessons for U.S. Policy Makers*, Policy Focus Report of the <https://www.lincolninst.edu/pubs/dl/1948_1268_High-Speed%20Rail%20PFR_Webster.pdf,7/5/12>, ML)

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#### HSR improves current climate state and energy efficiency

**Todorovich, director of America 2050 and assistant visiting professor at the Pratt Institute Graduate Center for Planning and the Environment, Schned, Associate planner for America 2050 and part-time lecturer for planning at the Edward J. Bloustein School of Planning and Public Policy at Rutgers University, and Lane, Senior fellow for urban design at Regional Plan Association, 2011**

(Petra, Daniel, and Robert, September, 16, Lincoln Institute of Land Policy, “High-Speed Rail: International Lessons for US Policymakers

<https://www.lincolninst.edu/pubs/dl/1948_1268_High-Speed%20Rail%20PFR_Webster.pdf>, July 1, BLE)

High-speed rail offers greater operating efficiency on a per passenger mile basis than competing modes, such as single-occupancy automobiles or airplanes that require significant amounts of fuel to get off the ground. For example, Shinkansen trains are estimated to use one-quarter the energy of airplanes and one-sixth that of private automobiles per passenger mile (JR Central 2011a). To achieve environmental benefits, highspeed trains must maximize load factors to realize the greatest efficiencies. As highspeed rail ridership increases, so does its relative energy efficiency, whereas a high-speed train carrying no passengers ceases to be efficient in any sense. In regions where the number of total trips is not growing, high-speed rail can bring about a net reduction of energy use through mode shift by capturing passengers from automobile or airplane trips. In regions like California where population and trips are projected to keep growing, highspeed rail can help reduce the energy and climate impacts on a per passenger basis through a combination of mode shift and attracting new passengers to high-speed rail.

#### HSR decreases fuel use by saving energy and helps economic productivity. Japan proves.

Todorovich, director of America 2050 and assistant visiting professor at the Pratt institute Graduate center for planning and Environment. Schned, associate planner for America 2050 and part-time lecturer at the Edward J. Bloustein, School of Planning and Public Policy at Rutgers university, and Lane, Senior fellow for urban design at Regional Plan association 2011

(Pertra, Daniel, and Robert, September 16, Lincoln Istitute of Land Policy, “High-Speed Rail: nternational Lessons for US Policymakers, <http://www.midwesthsr.org/sites/default/files/pdf/Lincoln_Policy_Institute_HSR_2011.pdf> July 1st, MDRJ)

Since the 1964 inauguration of Japan’s ﬁrst Shinkansen bullet train connecting Tokyo to Osaka, commercial high-speed rail lines have been constructed in 14 countries. Together these lines provide billions of passenger trips, save many hours of travel time, and provide an exceptional level of safety. Now considered a well-established and proven technology, high-speed rail continues to offer beneﬁts to the nations and regions it serves. This reliable, rapid, and safe ground transportation system offers increased regional mobility and accessibility, reduces fuel use, saves energy, regenerates cities and regions, and increases economic productivity

#### HSR operates on a fraction of the energy of competing modes

Todorovich, director of America 2050 and assistant visiting professor at the Pratt institute Graduate center for planning and Environment. Schned, associate planner for America 2050 and part-time lecturer at the Edward J. Bloustein, School of Planning and Public Policy at Rutgers university, and Lane, Senior fellow for urban design at Regional Plan association 2011

(Pertra, Daniel, and Robert, September 16, Lincoln Istitute of Land Policy, “High-Speed Rail: nternational Lessons for US Policymakers, <http://www.midwesthsr.org/sites/default/files/pdf/Lincoln_Policy_Institute_HSR_2011.pdf> July 1st, MDRJ)

High-speed rail has the potential to provide greater environmental beneﬁts and energy efﬁciencies than other modes of long distance travel. However, several conditions must be met to obtain these beneﬁts. Energy efﬁciency and ridership: High-speed rail offers greater operating efﬁciency on a per passenger mile basis than competing modes, such as single-occupancy automobiles or airplanes that require signiﬁcant amounts of fuel to get off the ground. For example, Shinkansen trains are estimated to use one-quarter the energy of airplanes and one-sixth that of private automobiles per passenger mile (JR Central 2011a). To achieve environmental beneﬁts, highspeed trains must maximize load factors to realize the greatest efﬁciencies. As highspeed rail ridership increases, so does its relative energy efﬁciency, whereas a high-speed train carrying no passengers ceases to be efﬁcient in any sense

#### HSR are more efficient and decrease global warming

Dutzik, Senior Policy Analyst with Frontier Group specializing in energy, transportation, and climate policy, Kaplan, Analyst with Frontier Group, Baxandall, Federal Tax and Budget Policy Analyst with U.S 10

(Tony, Siena, Phineas,2010, U.S. PIRG Education Fund, “Why Intercity Passenger Rail?,” The Right Track: Building a 21st Century High-Speed Rail System for America, , http://americanhsra.org/whitepapers/uspirg.pdf, Accessed 07-5-2012, DD)

Passenger rail is a cleaner form of transportation than car or air travel, emitting less global warming pollution and less healththreatening air pollution. Building a highspeed rail network in the United States would attract passengers who otherwise would have taken cars or planes, reducing the country’s global warming emissions and cleaning up our air. Modernizing our tracks would also benefit freight trains, taking large trucks off of highways and adding to the environmental and health benefits of investment in rail. Passenger rail already emits less global warming pollution than cars or planes, and these savings will increase as the United States develops a high-speed rail network. The Center for Clean Air Policy (CCAP)/ Center for Neighborhood Technology (CNT) study showed that today, passenger rail travel emits 60 percent less carbon dioxide per passenger mile then cars and 66 percent less than planes. The faster diesel trains that would likely be used to upgrade current service would emit slightly more emissions, but would still emit much less than cars and planes and would draw more passengers than current passenger rail. 30 (See Figure 3, next page.) Electric trains show the most potential for global warming emission reductions, even using today’s carbon-intensive electricity grid. The CCAP/CNT study surveyed the technology used on three different popular electric train lines, in France, Germany and Japan, and found that all would produce lower carbon dioxide emissions per passenger mile than a fast diesel train when powered by the U.S. electric grid. One train, used on the German ICE line, would produce about half the emissions of America’s current passenger rail system. 31 Electric trains are not only more energy efficient, but they are faster, and could eventually be powered at least partially with emission-free renewable energy. By attracting travelers who otherwise would have taken cars or planes, building a high-speed rail network would be much more effective at reducing global warming emissions than our current passenger rail system. The CCAP/CNT study estimated that building the high-speed rail corridor

### IL – Environment – Emissions

#### HSR resolves climate problems by dramatically reducing emissions

TODOROVICH, SCHNED, & LANE 11 1. director of America 2050, a national urban planning initiative, member of the Board of Advisors of the Eno Transportation Foundation, Masters in City and Regional Planning from the Bloustein School of Planning and Public Policy at Rutgers University 2. associate planner for America 2050 at Regional Plan Association 3. senior fellow for urban design at Regional Plan Association and founding principal of Plan & Process LLP. Loeb Fellow at the Harvard Graduate School of Design

[Petra Todorovich, Daniel Schned, and Robert Lane, High-Speed Rail: International Lessons for U.S. Policy Makers, <https://www.lincolninst.edu/pubs/dl/1948_1268_High-Speed%20Rail%20PFR_Webster.pdf>, September 2011, Lincoln Institute of Land Policy, Policy Focus Report]

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#### HSR cuts emissions that cause air pollution – multiple reasons

Dutzik, Senior Policy Analyst with Frontier Group specializing in energy, transportation, and climate policy, holds an M.A. in print journalism from Boston University and a B.S. in public service from Penn State University, 10

(Tony, 2010, “Why Intercity Passenger Rail?,” *The Right Track: Building a 21st Century High-Speed Rail System for America*, Available Online at <http://americanhsra.org/whitepapers/uspirg.pdf,7/5/12>, ML)

Passenger rail is a cleaner form of transportation than car or air travel, emitting less global warming pollution and less health-threatening air pollution. Building a high-speed rail network in the United States would attract passengers who otherwise would have taken cars or planes, reducing the country’s global warming emissions and cleaning up our air. Modernizing our tracks would also benefit freight trains, taking large trucks off of highways and adding to the environmental and health benefits of investment in rail. Passenger rail already emits less global warming pollution than cars or planes, and these savings will increase as the United States develops a high-speed rail network. The Center for Clean Air Policy (CCAP)/ Center for Neighborhood Technology (CNT) study showed that today, passenger rail travel emits 60 percent less carbon dioxide per passenger mile then cars and 66 percent less than planes. The faster diesel trains that would likely be used to upgrade current service would emit slightly more emissions, but would still emit much less than cars and planes and would draw more passengers than current passenger rail.30 (See Figure 3, next page.) Electric trains show the most potential for global warming emission reductions, even using today’s carbon-intensive electricity grid. The CCAP/CNT study surveyed the technology used on three different popular electric train lines, in France, Germany and Japan, and found that all would produce lower carbon dioxide emissions per passenger mile than a fast diesel train when powered by the U.S. electric grid. One train, used on the German ICE line, would produce about half the emissions of America’s current passenger rail system.31 Electric trains are not only more energy efficient, but they are faster, and could eventually be powered at least partially with emission-free renewable energy. By attracting travelers who otherwise would have taken cars or planes, building a high-speed rail network would be much more effective at reducing global warming emissions than our current passenger rail system. The CCAP/CNT study estimated that building the high-speed rail corridors [end page 15] planned by the federal government using fast diesel trains, with top speeds of 99 mph, would attract enough passengers to reduce U.S. global warming emissions by 6.1 billion pounds, the equivalent of taking almost 500,000 cars off the road.33 Passenger rail reduces harmful air pollution as well, especially when it is powered by electricity. For example, a passenger on an electric train in Germany produces about 93 percent less air pollution than someone traveling by car, and 91 percent less than someone making the same trip by plane.34 Although the electricity produced in the United States would create more emissions, electric trains would still be much cleaner than diesel trains, cars or planes. When tracks are upgraded for better passenger rail service, freight traffic needs are considered as well, allowing more freight trains to travel faster and with fewer delays and adding to the environmental benefits. Rail transport is much more fuel efficient than truck transport for freight—various studies estimate that train transport is three to nine times as efficient as truck transport for the same amount of freight.35 The resulting fuel savings add to the emissions reductions from improving passenger rail.

### HSR can eliminate 6 billion pounds of CO2 per year

#### HSR can reduce 6 billion pounds of CO2 per year through mode shift and resolving congestion

AHSRA, American High Speed Rail Alliance, 2009

(American High Speed Rail Alliance, 2009, “HIGH SPEED RAIL ENVIRONMENTAL BENEFITS”, <http://eunicecorbin.com/sample/advocacy/environment.html>, 7/5/12, ML)

High speed rail development promises tremendous environmental benefits and bolsters U.S. energy security. High speed rail development in the U.S. would reduce carbon in the atmosphere, help control congestion on the roads, lower consumption of energy and help reduce America’s dependence on foreign oil. Automobile transportation currently impacts the environment in a big way. Transportation sources account for nearly a third of U.S. greenhouse gas emissions and it is the fastest-growing source. Transportation is also the largest end-use source of CO2, which is the most prevalent greenhouse gas. Automobile trips account for 90 percent of U.S. intercity trips; air travel accounts for 7 percent. If passengers were to cancel their automobile and airplane trips in favor of high speed rail, it would save 6 billion pounds of C02 per year, according to the Center for Clean Air Policy and the Center for Neighborhood Technology in a report funded by the U.S. EPA. High speed rail development will help ease congestion by incentivizing drivers to come off the roads. Due to the increased congestion in the cities and on major highways, 4.2 billion hours of extra time is spent on the road, wasting 2.8 billions of additional fuel and costing up to $87.2 billion, according to the U.S. Public Interest Research Group. By lowering transportation fuel consumption, high speed rail development would lead to increased energy conservation in America. The U.S. consumes 25 percent of the world’s oil, yet it is only 5 percent of the world’s population and has less than 3 percent of the world’s oil reserves, according to the Natural Resource Defense Council. Of the oil that is consumed, 70 percent of it goes towards transportation, according to the National Commission on Energy Policy. The American Security Project calculates that 68 percent of U.S. petroleum comes from countries with “high” or “very high” risk of political instability. High speed rail development would decrease the need for foreign oil, allowing the country to be more energy-independent. The American High Speed Rail Alliance believes high speed rail must be part of the clean energy solution to reduce America’s dependence on fossil fuel and reduce greenhouse gas emissions.

#### HSR cut solves 6 billion pounds of CO2 per year

Center for Clean Air Policy 6

(Center for Clean Air Policy, January 2006, “High Speed Rail and Greenhouse Gas Emissions in the U.S.”, <http://www.cnt.org/repository/HighSpeedRailEmissions.pdf>, 7/5/12, ML)

Results We calculated a total emissions savings of 6 billion pounds of CO2 per year (2.7 MMTCO2)23 if all proposed high speed rail systems studied for this project are built (Table 2). Overall, high speed rail is estimated to generate approximately half of the gross emissions it saves by enabling passengers to switch from other modes. Savings from cancelled automobile and airplane trips are the primary sources of the emissions savings; together these two modes make up 80 percent of the estimated emissions savings from all modes. The total emissions savings vary greatly by corridor, however, as do the source of those savings, as shown in Figures 3 and 4. Figure 4 looks at the emissions for every corridor except California, because its large potential savings overshadows the other corridors studied when the corridors are considered together.

#### HSR reduces six billion pounds of CO2 emissions annually - transportation emission is the largest CO2 emitter

Rogers, J.D. University of Illinois College of Law, 2011

(Joshua, University of Illinois Journal of Law, Technology & Policy, 2011, “ The Great Train Robbery: How Statutory Construction May Have Derailed an American High Speed Rail System”, Lexis 7/5/12, ML)

A high speed rail network would reduce the U.S.'s negative impact on the environment. As recently as 2006, the U.S. emitted 5,902.75 million metric tons of carbon dioxide (CO2) annually, n58 placing the U.S. second, behind China, among the world's countries in total annual CO2 emissions. n59 Moreover, the U.S. placed second, behind Australia, in per capita CO2 emissions among countries with a population of more than 10 million. n60 As the largest CO2 emitter among end-use sectors, n61 transportation constitutes approximately one-third of all CO2 emissions in the U.S. n62 High speed rail employs "green" technologies that consume one-third less energy per passenger mile than automobile travel. n63 Also, high speed rail would transport passengers closer to their city center destinations, thereby, reducing unneeded energy consumption by additional travel to and from airports. n64 It is estimated that a high speed rail network would result in an annual reduction of 6 billion pounds of CO2 emissions for the U.S. n65 These statistics have led several [\*223] environmental groups, such as the Center for Clean Air Policy n66 and the Sierra Club n67 to endorse a U.S. high speed rail system.

#### High speed rail reduces total emissions to less than 25% in areas where it’s built

APTA 11

(APTA – American Public Transportation Association; 2011-2; “The Case for Business Investment in High-Speed and Intercity Passenger Rail”; Transportation Research Board database; accessed July 3) Kristof; *note: 25% comes from the car statistic and the rail statistic. People use both, but they primarily use cars.*

Numerous **studies have shown high-speed rail to be the route of energy and carbon savings**. Figure 3 shows energy efficiency among intercity travel modes determined by the International Union of Railways. **For the same energy use, high-speed rail provides eight times the passenger travel as aircraft and four times that of** private **cars**.15 The Center for Neighborhood Technology found that **high-speed rail cuts CO2 emissions nationwide and in every corridor where it is** proposed to be **built**. It **projected** total **emissions savings of 6 billion pounds of CO2 per year if** all proposed **high-speed rail systems** studied **are built**. Their results are summarized on Figure 4. In all cases, **high-speed rail creates lower emissions than air or auto travel**.16

#### HSR reduces 6 billion pounds in C02 emissions

Center for Clean Air Policy 06

High Speed Rail and Greenhouse Gas Emissions in the U.S., January 2006, <http://www.cnt.org/repository/HighSpeedRailEmissions.pdf>

Current projections show that passengers would take 112 million trips on high speed rail in the U.S. in 2025, traveling more than 25 billion passenger miles. This would result in 29 million fewer automobile trips and nearly 500,000 fewer flights. We calculated a total emissions savings of 6 billion pounds of CO2 per year (2.7 MMTCO2) if all proposed high speed rail systems studied for this project are built. Savings from cancelled automobile and airplane trips are the primary sources of the emissions savings; together these two modes make up 80 percent of the estimated emissions savings from all modes.

#### HSR would reduce harmful emissions by offering an alternative

Todorovich, director of America 2050 and assistant visiting professor at the Pratt Institute Graduate Center for Planning and the Environment, Schned, Associate planner for America 2050 and part-time lecturer for planning at the Edward J. Bloustein School of Planning and Public Policy at Rutgers University, and Lane, Senior fellow for urban design at Regional Plan Association, 2011

(Petra, Daniel, and Robert, September, 16, Lincoln Institute of Land Policy, “High-Speed Rail: International Lessons for US Policymakers

<https://www.lincolninst.edu/pubs/dl/1948_1268_High-Speed%20Rail%20PFR_Webster.pdf>, July 1, BLE)

Energy planning needs to be a part of the planning for high-speed rail to ensure the reduction of greenhouse gases and other harmful pollutants. Even with the current energy mix that includes fossil fuel sources, however, high-speed rail can yield significant environmental benefits. A recent study by the University of Pennsylvania (2011) found that a new high-speed line in the Northeast Corridor, powered by electricity from the current energy mix, would divert nearly 30 million riders from cars and planes, attract 6 million new riders, and still reduce car emissions of carbon monoxide by more than 3 million tons annually. The system would also result in a reduction of carbon dioxide emissions if the energy mix were shifted to low carbon emitting sources.

#### HSR can reduce between 12 and 6 billion pounds of a CO2

American Public Transportation Association, The American Public Transportation Association is a nonprofit international association of more than 1,500 public and private member organizations, engaged in the areas of bus, paratransit, light rail, commuter rail, subways, waterborne services, and intercity and high-speed passenger rail, 2012

(January, American Public Transportation Association, “An Inventory of the Criticisms of High-Speed Rail With Suggested Responses and Counterpoints,” <http://www.cahighspeedrail.ca.gov/assets/0/152/281/9497b692-e327-4a9e-96fa-4f1d25273bd3.pdf>, 7/4/12, MDRJ)

The issue of the carbon footprint is a collateral benefit. Emissions from trains, be they conventional or high-speed, are about two thirds that of airplanes, and one third less that automobiles. And the higher the passenger load, the greater the greenhouse benefit. Overall, environmental analysts estimate that between 12 billion and 6 billion pounds of CO2 can be eliminated by diverting passengers from air and auto travel in passenger rail corridors ranging from 100 to 600 miles in length. Regarding the “green nature” of high-speed rail, the U.S. Department of Transportation believes they have sufficient data to demonstrate that the administration’s passenger rail improvement initiative promotes economic expansion (including new manufacturing jobs), creates new choices for travelers in addition to flying or driving, reduces national dependence on oil, and fosters urban and rural community development. Further, the Department contends that today’s intercity passenger rail service consumes one-third less energy per passenger-mile than cars, and estimates that if high-speed rail lines are ultimately built on all federally-designated corridors, it could result in an annual reduction of 6 billion pounds of CO2 . For its part, Amtrak forecasts, based on EPA and Department of Energy evaluation factors, that travel-related emissions and energy consumption savings in the Northeast Corridor alone would be approximately $400 million over the initial 30 years of its Northeast Corridor passenger rail improvement program. The California High-speed Rail Authority in 2008 issued a draft environmental impact review/ environmental impact study (EIR/EIS) that among other impacts addressed air pollution issues including greenhouse gasses. The draft EIR/EIS noted that it only calculated CO2 for alignment alternatives that reflected emissions from electrical power stations, planes, and onroad vehicles miles traveled (VMT). The highway component was based on potential daily VMT reductions of 32.691 million miles. The air travel component was based on potential reductions of 52,876 daily trips

### HSR solves environment, multiple reasons

#### HSR solves 6 billion pounds of CO2 emissions per year, and is crucial to preventing destruction of wildlife and habitat from traditional transportation infrastructure

ELPC, Environmental Law & Policy Center, 2012

(Environmental Law & Policy Center,2012, “Environmental Benefits of High-Speed Rail”, <http://www.highspeedrailworks.org/benefits/environmental/>, 7/5/12, ML)

A nationwide high-speed rail network could mean 29 million fewer car trips and 500,000 fewer plane flights annually, according to a 2006 study. That would save 6 billion pounds of carbon dioxide emissions, the equivalent of removing a million cars from the road annually. High-speed rail reduces our dependence on foreign oil, protects the environment and is an ecologically responsible way to utilize land and natural resources. The environmental advantages continue to increase as more ridership goes up. Additional passengers or baggage do not increase the amount of pollution generated by rail travel. One railroad track offers as much passenger capacity as 10 lanes of highway. Next generation locomotives are six more fuel efficient than those built 10 years ago. High-speed electric trains need only one-third of the energy of an airplane and one-fifth that of an automobile. The total predicted emissions savings of the California high-speed electric train system is up to 12 billion pounds of CO2 per year by 2030 and would grow with higher ridership. Rail travel has proven to be three times more energy efficient than highway travel and six times more energy efficient than air travel, according to Department of Transportation approved studies. The vehicles we drive release over 1.7 billion tons of CO2 into the atmosphere each year, contributing to global climate change. Each gallon of gasoline you burn creates 20 pounds of CO2. That’s about 6 to 9 tons of CO2 each year for a typical vehicle. Expanding airports and highways impacts wetlands and water resources, increases noise pollution and is detrimental to farmlands and wildlife. High-speed rail is a cleaner transportation option that reduces the need for new runways and traffic lanes, creating more convenient transportation with less environmental damage.

#### HSR solves both our emissions and land use internal links

Environment Law & Policy Center, 11

(Environment Law & Policy Center, 2-16-11, Environment Law & Policy Order, http://elpc.org/category/smart-transportation/midwest-high-speed-rail#envirobenefits, accessed 7-3-12, BLE)

Because high speed rail promises environmental, economic, and transportation benefits, it has garnered broad support from throughout the Midwest. High speed trains in the Midwest would be three times as energy efficient as cars and six times as energy efficient as planes. Choosing rail travel over driving or flying will decrease our dependence on foreign oil and reduce air pollution that causes global warming and harms public health. Currently, major portions of the Midwest suffer from “severe” smog problems, according to federal regulators. The construction of high-speed rail will decrease the region’s reliance on automotive transportation and therefore help reduce ozone emissions. Downtown train stations will pull jobs, people and business back into the country’s central cities thus reversing sprawl. High speed rail reduces the need for new outlying highways and airports which exacerbate sprawl. A nationwide high-speed rail network could mean 29 million fewer car trips and 500,000 fewer plane flights annually, according to a 2006 study. That would save 6 billion pounds of carbon dioxide emissions, the equivalent of removing a million cars from the road annually. High-speed rail reduces our dependence on foreign oil, protects the environment and is an ecologically responsible way to utilize land and natural resources.

### Personal transportation is the largest emissions source

#### Personal transportation is the greatest pollutant of air, HSR solves and many governments are looking to invest in it

James 11

(James, Tony; Engineering & Technology (17509637); Jul2011, Vol. 6 Issue 6, p84-86, 3p, 2 Color Photographs; EBSCO; accessed July 2)

TWENTY-FIRST CENTURY citizens are travelling more than ever before. According to experts the upward trend is set to continue, with **global travel predicted to increase by** around **1.6 per cent each year between now and 2030**. **There is**, however, **a price to pay for** all **this mobility in the form of carbon emissions**. According to the International Energy Agency, the transport sector already accounts for 28 per cent of global energy consumption and pumps 6.4 billion tonnes of CO2 into the atmosphere – 23 per cent of worldwide energy-related CO2 emissions. **Personal transportation is the biggest polluter**. **More than half of the transport sector’s energy consumption can be attributed to** **cars**, while **road** freight **traffic accounts for 30 per cent**. At just 13 per cent, air traffic’s contribution is relatively low, while **rail systems account for only 2 per cent** of the sector’s energy use. **Rail travel,** then, clearly **presents** some sort of **answer to the CO2 problem** – **or, more accurately, high-speed rail**. Driven by increasing petrol prices, cutbacks in flight schedules, delays and increased security at airports and the seemingly endless traffic congestion, **governments around the world are looking seriously at rail investment**.

### Northeast Corridor alone saves 3 million pounds/year

#### HSR is more fuel efficient than cars or planes, helps reduce foreign oil dependency and carbon emissions

Todorovich, Schned and Lane 11

(Petra Todorovich, Daniel Schned, and Robert Lane; Todorovich and Schned work in leading positions at America 2050, Lane is a senior fellow at Regional Plan Association; 09/16/2011; “High-Speed Rail International Lessons for U.S. Policy Makers”; <https://www.lincolninst.edu/pubs/dl/1948_1268_High-Speed%20Rail%20PFR_Webster.pdf>)

High-speed rail has the potential to provide greater environmental benefits and energy efficiencies than other modes of long distance travel. However, several conditions must be met to obtain these benefits. Energy efficiency and ridership: **High-speed rail offers greater operating efficiency** on a per passenger mile basis **than** competing modes, such as single-occupancy **automobiles or airplanes** that require significant amounts of fuel to get off the ground. For example, Shinkansen **trains are estimated to use one-quarter** the **energy of airplanes and one-sixth** that **of** private **automobiles** per passenger mile (JR Central 2011a). To achieve environmental benefits, highspeed trains must maximize load factors to realize the greatest efficiencies. **As highspeed rail ridership increases, so does its** relative **energy efficiency**, whereas a high-speed train carrying no passengers ceases to be efficient in any sense. In regions where the number of total trips is not growing, high-speed rail can bring about a net reduction of energy use through mode shift by capturing passengers from automobile or airplane trips. In regions like California where population and trips are projected to keep growing, **highspeed rail can help reduce the energy and climate impacts** on a per passenger basis **through a combination of mode shift and attracting new passengers** to high-speed rail. Energy mix: **High-speed rail is** the only available mode of long-distance travel that currently is **not dependent on motor fuels**. High-speed rail is powered by electricity, which is not without environmental problems depending on its source (see table 2). If it is powered by electricity generated from fossil fuels, such as coal or natural gas that discharge harmful greenhouse gas emissions, then its environmental benefits are limited. However, **electricity** is generally considered an improvement over petroleum- generated power and **provides a crucial advantage as the United States aims to reduce its dependence on foreign oil.** Amtrak’s Northeast Corridor and parts of the Keystone Corridor (connecting Harrisburg, Pennsylvania to Philadelphia) are electrified. Most other conventional passenger trains in America operate on freight rail lines and are powered by diesel fuel. Energy planning needs to be a part of the planning for high-speed rail to ensure the reduction of greenhouse gases and other harmful pollutants. Even with the current energy mix that includes fossil fuel sources, however, high-speed rail can yield significant environmental benefits. A recent study by the University of Pennsylvania (2011) found that **a new high-speed line in the Northeast Corridor, powered by electricity** from the current energy mix, **would divert** nearly **30 million riders from cars and planes, attract 6 million new riders, and still reduce** car **emissions** of carbon monoxide by more than 3 million tons annually. The system would also result in a reduction of carbon dioxide emissions if the energy mix were shifted to low carbon emitting sources.

### IL – Environment – Land

#### HSR’s land usage efficiency can protect the environment

Todorovich, director of America 2050 and assistant visiting professor at the Pratt institute Graduate center for planning and Environment. Schned, associate planner for America 2050 and part-time lecturer at the Edward J. Bloustein, School of Planning and Public Policy at Rutgers university, and Lane, Senior fellow for urban design at Regional Plan association 2011

(Pertra, Daniel, and Robert, September 16, Lincoln Istitute of Land Policy, “High-Speed Rail: nternational Lessons for US Policymakers, <http://www.midwesthsr.org/sites/default/files/pdf/Lincoln_Policy_Institute_HSR_2011.pdf> July 1st, MDRJ)

A typical highspeed rail line has the ability to transport approximately the same number of people in the same direction as a three-lane highway, but on a fraction of the land area. The right-of-way width of a typical two-track high-speed rail line is about 82 feet—onethird the width of a standard six-lane highway (246 feet). This difference in land use amounts to a savings of 24.3 acres per mile of high-speed rail. Such a savings could be particularly signiﬁcant in environmentally sensitive areas that need protection and in urbanized areas where land for highway expansion is costly to acquire (UIC 2010a).

#### HSR protect environmentally sensitive areas – mode shift and efficient land use

Todorovich, Schned, and Lane, **director of America 2050, a national urban planning initiative to develop an infrastructure and growth strategy for the United States senior fellow for urban design at Regional Plan Association and a founding principal of Plan & Process LLP,** 2011

(Petra, Daniel and Robert, 9/16/11, Lincoln Institute of Land Policy, “High-Speed Rail International Lessons for U.S. Policy Makers”, <http://www.midwesthsr.org/sites/default/files/pdf/Lincoln_Policy_Institute_HSR_2011.pdf>, 7/1/12, ML)

Mode shift: Where it is competitive with other intercity transportation modes, high-speed rail can capture a large share of passenger volume. International experience suggests that high-speed rail usually captures 80 percent of air or rail trips, if the travel time by high-speed train is less than two and a half hours (UIC 2010a). Mode shift to rail provides the greatest beneﬁt in regions where road and air capacity is constrained. Safety: High-speed rail systems around the world have experienced excellent safety records. Until a deadly accident in China in July 2011, high-speed rail operations on dedicated tracks had never experienced a single injury or fatality (UIC 2010b). If high-speed rail is built in the United States and meets historic safety standards, one result could be fewer transport-related deaths as more passengers choose rail for intercity travel. Reliability: Dedicated high-speed rail services usually operate at greater frequencies than conventional rail, and have fewer delays and better on-time performance than cars and airplanes. The average delay of a Shinkansen train on the Tokaido line is only 30 seconds (JR Central 2011b). Spain’s AVE provides a full refund to passengers if their train is more than ﬁve minutes late (RENFE 2011). Capacity: By adding capacity to the railway network, high-speed rail can divert a large share of passenger rail service to new, dedicated tracks, thus freeing up capacity on the conventional rail network for freight and other intercity and com- muter rail services. For example, the United Kingdom has chosen to address capacity constraints on its West Coast Main Line with the implementation of the proposed High Speed 2 (HS2) line. In Japan, the main motivation for implementing the Tokaido line between Tokyo and Osaka was to provide additional capacity to the transportation network, rather than to reduce travel times (Givoni 2006). Efﬁcient land use: A typical highspeed rail line has the ability to transport approximately the same number of people in the same direction as a three-lane highway, but on a fraction of the land area. The right-of-way width of a typical two-track high-speed rail line is about 82 feet—onethird the width of a standard six-lane highway (246 feet). This difference in land use amounts to a savings of 24.3 acres per mile of high-speed rail. Such a savings could be particularly signiﬁcant in environmentally sensitive areas that need protection and in urbanized areas where land for highway expansion is costly to acquire (UIC 2010a).

#### HSR would allow 9.5% more efficient land use

CAHSR, California High Speed Rail, 9

(California High Speed Rail, 3/21/09, “SAN DIEGO BENEFITS FROM HIGH‐SPEED RAIL”, <http://www.cahighspeedrail.ca.gov/assets/0/152/198/0d4046e9-7d2f-4f63-b190-7fe47708ab27.pdf>, 7/7/12, ML)

“High‐speed trains are uniquely suited to improve mobility in a way that is fast, safe, convenient, comfortable, economical and environmentally efficient. Building a high‐speed train system would cost two to three times less than the cost of expanding our airports and highways to meet California's expected travel demand. And we must honestly ask ourselves: How much more road expansion are we willing to accept before we irreversibly scar the California landscape we so dearly treasure?” – Lynn Schenk, former San Diego congresswoman and author of the Federal Swift Rail Bill and board member of the California High‐Speed Rail Authority. Employment – San Diego employment is projected to be higher with development of a state‐wide high‐ speed train (HST) system. The HST would stimulate a 2.4 percent gain of employment in San Diego by the year 2030 than the County would otherwise gain, representing 45,250 more jobs. Population – Along with increased economic activity, the HST would lead to 4.8 percent more population growth in San Diego by the year 2030 than if the system is not developed. This translates to 141,615 more residents for San Diego County with the HST. Land Efficiency – Because the HST encourages greater compactness in the development of jobs and housing, projections show the high‐speed train would allow 9.5 percent more efficient land use than the not building alternative.

### A2: L Turn – Enviro – assessments

#### The environmental impact of HSR will be positive: assessments before construction prevent negative

Zaidi 7

(Kamaal, Doctor of Law, Temple Journal of Science, Technology & Environmental Law, “High Speed Rail Transit: Developing the Case for Alternative Transportation Schemes in the Context of Innovative and Sustainable Global Transportation Law and Policy”, 7/3/12, BR)

Efforts at promoting high-speed rail transit also signal the environment’s importance. High-speed rail transit now represents an alternative to existing forms of transportation that have traditionally relied heavily upon fossil fuel technology. As many nations have found, the advantage of adopting high-speed rail transit is that its energy derives from cleaner forms of nuclear energy, and not from traditional fossil fuels. Environmental assessments are routinely conducted prior to establishing high-speed rail projects, mainly because of the need to protect local communities and wildlife from adverse effects. These environmental assessments supplement feasibility studies that are often reviewed by transportation authorities. So important are these environmental considerations that many jurisdictions around the world are enacting legislation with strict environmental compliance measures.

## ADV – Oil Dependence

### IL – HSR Stops Oil Dependence

#### HSR reduces air pollution and US dependence on foreign oil

ELPC, Environmental Law and Policy Center, 2001

(Environmental Law and Policy Center, 1/31/01, “Benefits of high speed rail”, http://elpc.org/benefits-of-high-speed-rail, 7/3/12, ML)

High speed trains in the Midwest would be three times as energy efficient as cars and six times as energy efficient as planes. Choosing rail travel over driving or flying will decrease our dependence on foreign oil and reduce air pollution that causes global warming and harms public health. Currently, major portions of the Midwest suffer from “severe” smog problems, according to federal regulators. The construction of high-speed rail will decrease the region’s reliance on automotive transportation and therefore help reduce ozone emissions. Downtown train stations will pull jobs, people and business back into the country’s central cities thus reversing sprawl. High speed rail reduces the need for new outlying highways and airports which exacerbate sprawl.

#### HSR reduces fossil fuel dependence – uses least energy of any transportation mode

IHSRA, Indiana High Speed Rail Association, 2011

(Indiana High Speed Rail Association, 2011, “High Speed Rail: Experience the Benefits”, <http://www.indianahighspeedrail.org/economic.html>, 7/3/12, ML)

America's current transportation system makes this nation economically vulnerable. Rising fossil fuel costs, supply disruptions, increased congestion, and lack of transit options reduce economic growth potential and expose us to the risk of upwardly spiraling costs and transportation interruptions. Rising costs in particular mean that more of our household and national spending will go to pay for transportation. High speed rail would be the backbone of an alternative system providing several important benefits: Reduced Fuel Supply Dependency. High speed rail saves money and reduces supply disruption and petroleum cost inflation risk by reducing our dependence on a finite energy resource, much of it imported from foreign sources. Rising Fuel Cost Risk. Although petroleum costs rise and fall, the long term trend is clearly toward higher prices. Most of our oil use (71%, according to the National Rail Plan) is for transportation. The fact that 57% of this oil is imported exposes our economy to risk. [1] The Transportation Economics and Management Systems, Inc. (TEMS) report for the Midwest Regional Rail Initiative (MWRRI), which studied and affirmed the viability of high speed rail in the Midwest, used in its calculations a (2005) gas cost of $1.25/gallon, which is much lower than today's gas prices. If travelers paying $1.25/gallon would be interested in alternative transportation options, travelers paying three times as much for gasoline are likely to be even more inclined to seek alternatives. [2] Rail Energy Efficiency. High speed passenger trains use the least energy of any passenger transportation mode, measured in BTUs, per passenger mile. [3] Auto: 3,437 Air Carrier: 3,051 Commuter Train: 2,656 Intercity Train: 2,398

#### HSR is more fuel efficient than cars or planes, helps reduce foreign oil dependency and carbon emissions

Todorovich, Schned and Lane 11

(Petra Todorovich, Daniel Schned, and Robert Lane; Todorovich and Schned work in leading positions at America 2050, Lane is a senior fellow at Regional Plan Association; 09/16/2011; “High-Speed Rail International Lessons for U.S. Policy Makers”; <https://www.lincolninst.edu/pubs/dl/1948_1268_High-Speed%20Rail%20PFR_Webster.pdf>)

High-speed rail has the potential to provide greater environmental benefits and energy efficiencies than other modes of long distance travel. However, several conditions must be met to obtain these benefits. Energy efficiency and ridership: **High-speed rail offers greater operating efficiency** on a per passenger mile basis **than** competing modes, such as single-occupancy **automobiles or airplanes** that require significant amounts of fuel to get off the ground. For example, Shinkansen **trains are estimated to use one-quarter** the **energy of airplanes and one-sixth** that **of** private **automobiles** per passenger mile (JR Central 2011a). To achieve environmental benefits, highspeed trains must maximize load factors to realize the greatest efficiencies. **As highspeed rail ridership increases, so does its** relative **energy efficiency**, whereas a high-speed train carrying no passengers ceases to be efficient in any sense. In regions where the number of total trips is not growing, high-speed rail can bring about a net reduction of energy use through mode shift by capturing passengers from automobile or airplane trips. In regions like California where population and trips are projected to keep growing, **highspeed rail can help reduce the energy and climate impacts** on a per passenger basis **through a combination of mode shift and attracting new passengers** to high-speed rail. Energy mix: **High-speed rail is** the only available mode of long-distance travel that currently is **not dependent on motor fuels**. High-speed rail is powered by electricity, which is not without environmental problems depending on its source (see table 2). If it is powered by electricity generated from fossil fuels, such as coal or natural gas that discharge harmful greenhouse gas emissions, then its environmental benefits are limited. However, **electricity** is generally considered an improvement over petroleum- generated power and **provides a crucial advantage as the United States aims to reduce its dependence on foreign oil.** Amtrak’s Northeast Corridor and parts of the Keystone Corridor (connecting Harrisburg, Pennsylvania to Philadelphia) are electrified. Most other conventional passenger trains in America operate on freight rail lines and are powered by diesel fuel. Energy planning needs to be a part of the planning for high-speed rail to ensure the reduction of greenhouse gases and other harmful pollutants. Even with the current energy mix that includes fossil fuel sources, however, high-speed rail can yield significant environmental benefits. A recent study by the University of Pennsylvania (2011) found that **a new high-speed line in the Northeast Corridor, powered by electricity** from the current energy mix, **would divert** nearly **30 million riders from cars and planes, attract 6 million new riders, and still reduce** car **emissions** of carbon monoxide by more than 3 million tons annually. The system would also result in a reduction of carbon dioxide emissions if the energy mix were shifted to low carbon emitting sources.

#### Building HSR saves the environment and curbs the US dependence on oil

CALPIRG, a consumer group that researches public issues about health and safety. ,2010

(June, CALPIRG, “Next Stop: California The Benefits of High-Speed Rail Around the World and What’s in Store for California,” <http://cdn.publicinterestnetwork.org/assets/ff178505134e5feffbd9dc8faf2ece7d/Next-Stop-California.pdf> 7/4/12, MDRJ)

High-speed rail has the potential to curb transportation energy use and pollution. Other nations are realizing that potential, benefiting from the energy savings and emission reductions that result from their investment in advanced rail systems. High-speed rail delivers energy savings by replacing trips that would have been taken by car or airplane. High-speed rail may also have secondary energy-saving impacts by encouraging patterns of development—including greater concentration of residential or business activity near high-speed rail stations—that reduce the distance of trips made in day-to-day travel. Rail travel—particularly on electric trains—has some inherent energy-saving advantages compared with cars or airplanes. Both cars and airplanes are, at the moment, completely reliant on oil, whereas trains can be powered by electricity generated from a variety of fuels, including renewable energy. Electric motors are also inherently more energy efficient than the internal combustion engines used in cars and trucks, which dissipate much of the energy in their fuel as heat. High-speed rail also competes favorably in terms of energy consumption with short-haul aircraft, which expend much of their energy on takeoff. (See page 7.) Assessing the energy savings delivered by high-speed rail is challenging, and researchers come to different conclusions. The degree of energy savings depends on a complex interaction of speed, ridership, the source of energy used, and many other factors—as well as the emissions assumed to come from competing modes of travel. For example, a train that moves at high speeds might consume more energy per seat than a slower train. But if the higher speeds mean that the service is more attractive and more of the seats on the train are filled, the faster train may be more energy efficient on a per-passenger basis and may deliver a larger total energy savings. Construction of high-speed rail is expected to play a role in helping the state to meet its goal of reducing global warming pollution to 1990 levels by 2020. 43 The experience of nations with high-speed rail lines suggests that high-speed rail can make a meaningful contribution to achieving that goal, while also saving energy and reducing dependence on oil.

#### HSR decreases dependence on oil

Dutzik, Senior Policy Analyst with Frontier Group specializing in energy, transportation, and climate policy, Kaplan, Analyst with Frontier Group, Baxandall, Federal Tax and Budget Policy Analyst with U.S 10 (Tony, Siena, Phineas,2010, U.S. PIRG Education Fund, “Why Intercity Passenger Rail?,” The Right Track: Building a 21st Century High-Speed Rail System for America, , http://americanhsra.org/whitepapers/uspirg.pdf, Accessed 07-5-2012, DD)

Passenger rail reduces our dependence on oil. On average, an Amtrak passenger uses 23 percent less energy per mile than an airplane passenger, 40 percent less than a car passenger, and 57 percent less than a passenger in an SUV or pickup truck. Newer locomotives are becoming far more efficient, and switching rail lines from diesel to electric power can curb America’s oil dependence even further.

#### HSR help curbed dependence on foreign oil

Dutzik, Senior Policy Analyst with Frontier Group specializing in energy, transportation, and climate policy, Kaplan, Analyst with Frontier Group, Baxandall, Federal Tax and Budget Policy Analyst with U.S 10 (Tony, Siena, Phineas,2010, U.S. PIRG Education Fund, “Why Intercity Passenger Rail?,” The Right Track: Building a 21st Century High-Speed Rail System for America, , http://americanhsra.org/whitepapers/uspirg.pdf, Accessed 07-5-2012, DD)

Cars and airplanes are almost exclusively powered by oil—increasing America’s dependence on a limited supply of fossil fuel largely controlled by other nations. Spikes in oil prices in recent years have had dramatic effects on Americans’ willingness to drive or fly to their destinations. Expanding and improving passenger rail service can reduce the nation’s dependence on oil and insulate travelers from the impact of fuel price spikes. America’s existing intercity passenger rail network already contributes to reducing America’s oil dependence, removing an estimated 8 million cars from the road and eliminating the need for 50,000 passenger airplane trips each year. 12 Intercity passenger rail—even when powered by diesel fuel—is more fuel-efficient than car or air travel, particularly for trips in the 100 to 500-mile range. On average, an Amtrak passenger uses 23 percent less energy per mile than an airplane passenger, 40 percent less than a car passenger, and 57 percent less than a passenger in an SUV or pickup truck. 13 These numbers underestimate rail’s oil savings compared with airplanes. In terms of travel time, rail is most competitive against oil-intensive short airplane flights with trip distances of 500 miles or less—a traveler is much more likely to choose rail over air travel from Chicago to Minneapolis than from Chicago to Miami. Short flights use more fuel per mile than longer flights, since a plane uses much of its fuel in takeoff. A modernized passenger rail network in the future will also likely use less oil than American passenger rail service does today. As a high-speed rail network is developed in the United States, it will rely more on electricity and less on diesel fuel. Currently, about 40 percent of American intercity passenger rail is powered by electricity, while 80 percent of European rail service is electric. 14 As train service becomes faster, more reliable and more frequent it will also likely draw more passengers, further lowering per-passenger fuel usage. The more seats on a train that are filled, the less fuel that is used per passenger. Amtrak trains are typically about 50 percent full, compared with 70 percent for European high-speed trains. 15 As rail travel in America improves and draws more passengers, it is likely that trains will be carrying larger loads of travelers, raising the fuel efficiency of a trip on a train. Finally, the location of passenger rail hubs in downtown areas can encourage and support land-use patterns that reduce the need to drive, further curbing oil use. Placing a passenger rail station in a downtown area provides an inducement for businesses to locate nearby—just as airports spur development of office parks for businesses seeking close proximity to transportation and the construction of hotels and other traveler services. Unlike airports, however, passenger rail hubs would likely be located in existing downtown areas, where workers would be more likely to get to work via transit or other transportation alternatives.

#### The transportation shift dramatically reduces oil dependence

HSIPR, committee dedicated to researching and understanding the benefits of high speed intercity passenger rail, 2010

(HSIPR, “Application Form Planning,” <http://www.michigan.gov/documents/mdot/MDOT-HiSpeedChicagoDetroitApplicationForm_327158_7.pdf>, 7/6/12, MDRJ)

Shifting riders from highways and air travel to rail alleviates congestion among highway and airline routes leading to significant environmental benefits including better air quality, less carbon emissions and can reduce dependence on foreign oil. Research done by the Environmental Law and Policy Center (ELPC) shows that high-speed trains in the Midwest would be three times as energy efficient as cars and six times as energy efficient as planes on a perpassenger-mile basis. Currently, passenger rail travel along the Chicago-Detroit/Pontiac Corridor reduces auto trips by 500-600 per day. The resultant savings in fuel is approximately two million gallons per year. With ridership expected to increase by a factor of four with full implementation of the MWRRS, fuel savings would likewise increase to eight million gallons per year.

#### HSR drastically cuts the amount of oil required for travel

CAP, a center focused on advancing American competitiveness, 2010

(Center for American Progress, 3/24, “It's Easy Being Green: Rail Transport Picks Up Speed” 7/6/12, MDRJ)

The United States uses 25 percent of the entire world’s oil supply despite having only 5 percent of the world’s population, and sprawling communities force people to drive even short distances. We need alternate modes of transportation to kick this oil dependence, and one alternative is high-speed rail, which offers tantalizing environmental and economic benefits. President Barack Obama, Vice President Joseph Biden, and Transportation Secretary Ray LaHood announced a strategic plan for high-speed rail last year that includes $8 billion in the American Recovery and Reinvestment Act and $1 billion a year for five years in the federal budget. Their goal is to jumpstart a potential world-class rail system in the United States. These economic incentives for a mass U.S. network of high-speed rail trains, or HSR, along existing transportation corridors could create much-needed jobs, decrease our dependence on foreign oil and fossil fuels, and significantly reduce greenhouse gas emissions. The national implementation of HSR would create jobs in the planning, design, and construction of track and station infrastructure as well as the management, design, and manufacturing of high-speed trains. A study by the California High-Speed Rail Authority found that building their proposed HSR system—which would run from Los Angeles to San Francisco and voters OK’d in 2008—will create 150,000 construction jobs and 450,000 permanent jobs. Critics worry that HSR will encourage sprawl and have a significant impact on parks and wildlife refuges. Yet there have been no links established between existing HSR stations in France and Spain, for example, and an epidemic of suburban growth. In fact, sprawl could be a thing of the past if we take preventative measures to encourage urban density, enact antisprawl regulations, and make it convenient to travel to outlying HSR stations with plenty of garage parking. HSR systems would take advantage of existing transportation corridors to minimize intrusion onto protected nature reserves, decrease air pollution generated by internal combustion engines in cars, and reduce greenhouse gas emissions. The California HSR, for example, will remove 12 billion pounds of carbon dioxide per year by 2030 because it uses electricity generated from wind, solar, and other renewable resources. In addition, California’s HSR will save 12.7 million barrels of oil by 2030.

### HSR reduces dependency, solves peak oil

#### HSR Reduces Oil Dependency, solves peak oil collapse

Dorsett 10

[Katherine Dorsett, “Is the U.S. turning a corner on high-speed rail?”, CNN, <http://www.cnn.com/2010/TRAVEL/08/18/us.high.speed.rail/index.html>]

The United States Conference of Mayors, American Association of State Highway and Transportation Officials and America 2050 -- a coalition of regional planners, scholars and policy-makers -- back high-speed rail plans. The U.S. High Speed Rail Association is also among the supporters. "Experts in the oil industry have been saying for a number of years now that there is not enough oil left in the ground to continue our current level of consumption, not to mention no way to meet growing demand, and we can expect half as much oil available to us in the next 20 years," said Andy Kunz, president and CEO of the rail association. "If we are to continue economic development and prosperity, we will need to greatly reduce our daily oil consumption, and high-speed rail is the only possible solution that can scale up to meet the growing demand of American mobility while greatly reducing our oil consumption," said Kunz.

#### Peak Oil is here, building HSR is the only way to curb our oil dependency

Magee, politician and current write-in president for the election of 2012 also writes about public issues, 2012

(Erin, 3/15, Articlesbase.com, “High Speed Rail: The Time is Now” <http://www.articlesbase.com/politics-articles/high-speed-rail-the-time-is-now-5745202.html>, 7/5/12, MDRJ)

Since increasing oil supply is proving to be practically impossible, reducing demand is the only viable solution. Ramping up forms of transportation that consume little or no oil is the heart of the solution. Creating a national transportation network based on a system of electric trains throughout the country will take a huge bite out of our unsustainable appetite for oil, while increasing mobility, efficiency, global competitiveness and national security. In conjuction with butanol production, High-Speed Rail will reduce our dependence on foreign oil by more than 50% (2,3) High-Speed Rail is the large-scale, comprehensive solution to the oil supply problem, and is the most significant way to reduce our daily consumption of oil quickly and efficiently while maintaining our prosperity and economic growth. High-Speed Rail will mean: Less Money Spent on Gasoline, More Business & Real Jobs for Real People With so many advantages, when should we commit ourselves to a national High-Speed Rail system? The time is now.

### HSR avoids peak oil, solves resource wars

#### Peak oil will draw the US into resource wars unless we embrace HSR

US High Speed Rail Association, The only organization in America focusing entirely on advancing a state-of-the-art national high speed rail network across the country. They are an independent, nonprofit 501(c)(6) trade association chartered to organize and mobilize the industry, No Date

(USHSR, “Energy Security” <http://www.ushsr.com/benefits/energysecurity.html> 7/5/12, MDRJ)

Building an electrically-powered national high speed rail network across America is the single most powerful thing we can do to get the nation off oil and into a secure, sustainable form of mobility. A national network of high speed trains can be powered by a combination of renewable energy sources including wind, solar, geothermal, and ocean/tidal energy. America's dependency on oil is the most severe in the world, and inevitably pulls us into costly resource wars. It also pushes us into exploring for oil in extreme locations such as 10,000 feet deep below the Gulf of Mexico. We use 25% of the entire world's oil supply, yet we only have 5% of the world's population. We use 8-10 times more oil per person per day than Europeans, and they have faster, easier and better mobility than we do. The extremely high daily oil consumption of Americans is not due to a higher standard of living, but because of the extremely inefficient nature of our national transportation system – based on individual vehicles powered by internal combustion engines, combined with our sprawling community designs that force people into cars for every trip. As the world oil supply begins to peak and then irreversibly declines, prices will rise faster, and the situation will get far worse for America if we don't quickly reduce our national oil dependency. This dependency cuts across our entire society and affects our daily survival. Oil provides 95% of the energy to grow, process and deliver food to the nation. Our entire national transportation system is powered mostly by oil. Numerous daily products we use are made from oil. We use 20 million barrels of oil every day - just in America - 70% of it for transportation. Of the 20 million barrels we consume, we import 2/3 of this oil (13 million barrels per day) from foreign sources, many in unstable places. No combination of drilling off our coasts, hydrogen fuel cells, natural gas, biofuels, and used french fry oil will solve this and carry 300 million Americans into the future. None of these fuels can be scaled up to anywhere near the amount of liquid fuel we use daily in any practical, economical, or sustainable way.

#### Building HSR will curb our oil dependency and keep the US out of escalating conflict in the Middle East

Slaughter, master's degree in public health microbiologist in Congress now serving her 13th term in Congress, 2011

(Louise, 2/11, <http://www.louise.house.gov/index.php?option=com_content&view=article&id=39&Itemid=61>, 7/5/12, MDRJ)

In addition, recent events in the Middle East have again reminded us of how closely tied we are to the oil-rich Middle East to meet our energy needs. This dependency is bad for America’s national security interests, and will only get worse as the world’s oil supply reaches its peak and begins to decline. A national high speed rail system ends our oil dependency quickly and permanently, and prevents our country from being dragged into future struggles to secure oil to meet our energy needs.In addition to our dependence on foreign oil, we face an increasingly urgent climate crisis, with more severe and dangerous storms grinding commerce to a halt, stranding millions, and threatening human life. These storms are just the latest reminder that the benefits of a greener rail system can no longer wait.

### ! – Oil dependence – Terrorism

#### Oil dependence leads to climate change which causes terrorism and government instability

Lefton and Weiss, a Researcher for Progressive Media and a Senior Fellow and Director Climate Strategy at the Center for American Progress, 2010

(Rebecca and Daniel, January, “Oil Dependence Is a Dangerous Habit,” Center For American Progress, <http://www.americanprogress.org/issues/2010/01/pdf/unstable_oil.pdf>, 7/8/12, MDRJ)

Meanwhile, America’s voracious oil appetite continues to contribute to another growing national security concern: climate change. Burning oil is one of the largest sources of greenhouse gas emissions and therefore a major driver of climate change, which if left unchecked could have very serious security global implications. Burning oil imported from “dangerous or unstable” countries alone released 640.7 million metric tons of carbon dioxide into the atmosphere, which is the same as keeping more than 122.5 million passenger vehicles on the road. Recent studies found that the gravest consequences of climate change could threaten to destabilize governments, intensify terrorist actions, and displace hundreds of millions of people due to increasingly frequent and severe natural disasters, higher incidences of diseases such as malaria, rising sea levels, and food and water shortages. A 2007 analysis by the Center for American Progress concludes that the geopolitical implications of climate change could include wide-spanning social, political, and environmental consequences such as “destabilizing levels of internal migration” in developing countries and more immigration into the United States. The U.S. military will face increasing pressure to deal with these crises, which will further put our military at risk and require already strapped resources to be sent abroad.

### ! – Oil dependence – Security

#### Oil dependence kills US national security

Victor et. Al, a taskforce dedicated to taking national and international policy and studying it for the better understanding of the public and international policymakers ,2006

(David and the Council on Foreign Relations, November, The Council on Foreign Relations, “National Security Consequences of U.S. Oil Dependency,” <http://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=5&ved=0CL0EEBYwBA&url=http%3A%2F%2Fwww.cfr.org%2Fcontent%2Fpublications%2Fattachments%2FEnergyTFR.pdf&ei=5MX4T_HJCcS5rQHVzY2LCQ&usg=AFQjCNEPZOz_ew-eHRY0SY6oJG8Na4GFA&sig2=ngtn68D_09gfnzyaAEPipQ>, 7/7/12, MDRJ)

For the last three decades, the United States has correctly followed a policy strategy that, in large measure, has stressed the importance of markets. Energy markets, however, do not operate in an economically perfect and transparent manner. For example, the Organization of Petroleum Exporting Countries (OPEC), quite notably, seeks to act as a cartel. Most oil and gas resources are controlled by state-run companies, some of which enter into supply contracts with consumer countries that are accompanied by political arrangements that distort the proper functioning of the market. These agreements, such as those spearheaded by the Chinese government in oil-rich countries across Africa and elsewhere, reflect many intentions, including the desire to ‘‘lock up’’ particular supplies for the Chinese market. Some of the state companies that control these resources are inefficient, which imposes further costs on the world market. And some governments use the revenues from hydrocarbon sales for political purposes that harm U.S. interests. Because of these realities, an active public policy is needed to correct these market failures that harm U.S. economic and national security. The market will not automatically deliver the best outcome

### ! – Oil Dependence – Middle East

#### Building HSR will curb our oil dependency and keep the US out of escalating conflict in the Middle East

Slaughter, master's degree in public health microbiologist in Congress now serving her 13th term in Congress, 2011

(Louise, 2/11, <http://www.louise.house.gov/index.php?option=com_content&view=article&id=39&Itemid=61>, 7/5/12, MDRJ)

In addition, recent events in the Middle East have again reminded us of how closely tied we are to the oil-rich Middle East to meet our energy needs. This dependency is bad for America’s national security interests, and will only get worse as the world’s oil supply reaches its peak and begins to decline. A national high speed rail system ends our oil dependency quickly and permanently, and prevents our country from being dragged into future struggles to secure oil to meet our energy needs.In addition to our dependence on foreign oil, we face an increasingly urgent climate crisis, with more severe and dangerous storms grinding commerce to a halt, stranding millions, and threatening human life. These storms are just the latest reminder that the benefits of a greener rail system can no longer wait.

### ! – Oil Dependence – Economy

#### Foreign oil dependence ruins US economy

Reynolds, 10

(Lewis , American Surveyor, “Seven Dangerous (and Surprising) Side Effects of US Dependence on Foreign Oil”, August 4th, http://www.amerisurv.com/content/view/7708/, accessed 7-4-12, BLE)

It causes ongoing damage to the American economy (and weakens our power in the world). Oil dependence is slowly eating away at the true source of American power (our economy) as each year the U.S. exports more and more of its wealth in exchange for oil. U.S. trade deficits have created a situation that forces reliance on overseas capital to support the economy. Much of that capital comes from the petroleum exporting countries that, in turn, get it from oil consumption by American businesses and consumers. Today the American economy is based less on producing either goods or services and more on consumption. This drives what is known as the “petrodollar” system. It begins with the purchase of oil by the U.S. consumer, which sends massive dollar-denominated cash flows to oil exporting countries. In addition, U.S. consumers buy imported goods resulting in flows of dollars to those countries. In turn, the manufacturing nations must purchase oil, which they accomplish with the dollars they obtained from selling products in the U.S. market. At this point, the oil exporters are awash in dollars, which they must either spend or invest. The consequence is that, to a large extent, governments in the Middle East are funded by American consumers. The same money you use to fill your gas tank is ultimately funding things like terrorist groups and the Iranian nuclear program, but, perhaps more importantly, it is being used to buy assets in the United States. At the end of 2008, foreigners owned $3.5 trillion more in assets in the U.S. than Americans owned abroad, and the bulk of that difference can be explained by the oil trade deficit. The petroleum trade deficit is a wealth transfer. In 2008 alone, Americans purchased $453 billion of foreign oil (which accounted for more than 65 percent of the total trade deficit). The oil we purchase quite literally goes up in smoke. When all is settled, Americans have swapped our equity for short-term consumption while the oil exporters have swapped their oil for long-term financial assets. I don’t think there is any question as to who is getting the better end of the deal. It’s leading to the decline of the dollar. Although, in previous decades, the Federal Reserve has viewed energy prices as a component of inflation and reacted to increasing oil prices using anti-inflationary measures, the modern Federal Reserve has feared that increasing oil prices are more likely to precipitate a recession. The Fed has responded to price shocks by increasing the money supply in hopes of stimulating aggregate demand. The long-term trend of the dollar is downward, which places upward pressure on oil prices. The Fed has responded to increasing oil prices by printing more money. Increasing the money supply makes a given dollar worth less, which means that more dollars are needed to buy a given quantity of oil. The falling dollar and the increasing price of oil have elicited policies from the Fed that cause the dollar to fall still further and the price of oil to increase even more, accelerating and intensifying the effects.

#### Reducing oil dependence saves the economy from oil shocks

Feldstein, Professor of Economics at Harvard University, 2003

(Martin, December, National Bureau of Economic Research, “Reducing America’s Dependence on Foreign Oil Supplies,” <http://www.nber.org/feldstein/oildependenceaea2003.pdf>, 7/7/12 MDRJ)

But even if we cannot completely eliminate the need for oil imports, it is possible to reduce substantially the role of oil in the economy with the technology that now exists and even more so with the technology that will be operational during the next two or three decades. Reducing our consumption of oil would make the U.S. economy less sensitive to global oil prices and therefore to shocks in foreign global supplies. If oil plays a smaller role in the economy, changes in world oil prices would have less of an impact on the domestic price level and on domestic economic output. Reducing the sensitivity of the U.S. economy to foreign oil markets by decreasing oil consumption relative to GDP would also reduce the pressure to bend our foreign policy and our military actions to the geopolitics of oil supply.

#### Oil dependence kills the economy

Dorsett, writer for CNN, 2010

(Katherine, 8/18, CNN, “Is the U.S. turning a corner on high-speed rail?” <http://www.cnn.com/2010/TRAVEL/08/18/us.high.speed.rail/index.html>, 7/7/12, MDRJ)

The United States Conference of Mayors, American Association of State Highway and Transportation Officials and America 2050 -- a coalition of regional planners, scholars and policy-makers -- back high-speed rail plans. The U.S. High Speed Rail Association is also among the supporters. "Experts in the oil industry have been saying for a number of years now that there is not enough oil left in the ground to continue our current level of consumption, not to mention no way to meet growing demand, and we can expect half as much oil available to us in the next 20 years," said Andy Kunz, president and CEO of the rail association. "If we are to continue economic development and prosperity, we will need to greatly reduce our daily oil consumption, and high-speed rail is the only possible solution that can scale up to meet the growing demand of American mobility while greatly reducing our oil consumption," said Kunz.

#### Oil dependence will crash the US economy

NRDC, environmental group that conducts studies to see how the world’s natural resources affect the US ,2004

(10/27, “Safe, Strong and Secure: Reducing America's Oil Dependence,” <http://www.nrdc.org/air/transportation/aoilpolicy2.asp> 7/7/12, MDRJ)

With stubbornly high prices, the U.S. economy is feeling the drag of dependence. In the first nine months of 2004, the U.S. exported $72.5 billion for oil.11 Every day the U.S. pays out $390 million for foreign oil, with half of every dollar going to OPEC and a quarter to the Persian Gulf (see figure 4). While some of those dollars could make their way back into the U.S. economy, recent trends suggest that those paid out to OPEC will not be reinvested here.12 And OPEC countries are profiting handsomely from surging oil prices; in fact, they are expected to pocket $300 billion by the end of the year.13 The high costs of oil have been passed on to consumers at the pump, through more expensive goods and services, and in a weaker job market and lower stock prices.14 Economist Philip Verleger finds that oil price spikes have cumulatively sapped 15 percent of our economy's growth since the Second World War, resulting in $1.2 trillion in direct losses.15 The total economic penalty of our oil dependence, including loss of jobs, output, and tax revenues, is estimated to be between $297 and $305 billion annually.

#### Economic decline inevitable without a reduction of oil dependence

Glass, award-winning author with books based on issues facing the status quo, 2004

(Andrea, 12/14, Ezine Articles, “The U.S. Dependence on Foreign Oil” <http://ezinearticles.com/?How-Can-We-Decrease-the-U.S.-Dependence-on-Foreign-Oil?&id=7175>, 7/7/12, MDRJ)

How much oil we depend on from foreign sources affects our economy and our national security. Today, we import more than half of the oil we use, and it will increase as we use up domestic resources. The majority (65% to 75%) of the world's oil reserves are in the Middle East and are controlled by the OPEC oil cartel. The U.S. depends on oil for most of its transportation needs--up to 95%. Until alternative energy vehicles start becoming more commonplace, our dependence on foreign oil will only grow. In the past, dependence on oil has cost our economy dearly. Oil price shocks and manipulation by OPEC between 1979 to 2000 cost the U.S. around $7 trillion, nearly as much as was spent on national defense over the same period and more than the interest payments on the U.S. national debt. An economic recession resulted from each major price shock, so with increasing dependence on OPEC oil, continued price shocks will continue to cost the U.S. economy.

#### Reducing oil dependence saves the economy from oil shocks

Feldstein, Professor of Economics at Harvard University, 2003

(Martin, December, National Bureau of Economic Research, “Reducing America’s Dependence on Foreign Oil Supplies,” <http://www.nber.org/feldstein/oildependenceaea2003.pdf>, 7/7/12 MDRJ)

But even if we cannot completely eliminate the need for oil imports, it is possible to reduce substantially the role of oil in the economy with the technology that now exists and even more so with the technology that will be operational during the next two or three decades. Reducing our consumption of oil would make the U.S. economy less sensitive to global oil prices and therefore to shocks in foreign global supplies. If oil plays a smaller role in the economy, changes in world oil prices would have less of an impact on the domestic price level and on domestic economic output. Reducing the sensitivity of the U.S. economy to foreign oil markets by decreasing oil consumption relative to GDP would also reduce the pressure to bend our foreign policy and our military actions to the geopolitics of oil supply.

# AFF ANSWERS

## A2: States

### AT: Solvency – States – Funding

#### States lack funds to do HSR

FRA, The purpose of FRA is to: promulgate and enforce rail safety regulations; administer railroad assistance programs; conduct research and development in support of improved railroad safety and national rail transportation policy, 2009

(April, Federal Railroad Administration, “Vision For High-Speed Rail in America” http://www.fra.dot.gov/downloads/rrdev/hsrstrategicplan.pdf, accessed 7/3/12 MDRJ)

The current economic downturn has left many States in a precarious fiscal condition. Many lack resources to make capital investments or take on potential rail operations expenses. In spite of these fiscal constraints, some States have continued to invest in passenger rail, even without Federal support, and many have funded operating costs for running intercity passenger rail services. While an expansion of passenger rail and development of HSR fits well into the transportation vision of many States, decisionmakers will have been confronted with difficult budget decisions to advance these programs in coming years, even with an expanded Federal commitment.

#### States can’t afford, California Proves

Moore, Cox, Vrancich, 2012

(Joseph, Wendell, Adrian, July 2, 2012, Reason Foundation, “5 Reasosn the California High-Speed Rail Project Shouldn’t Get More Monay”, <http://reason.org/news/show/california-high-speed-rail-funding>, accessed July 12, 2012, TRH)

Despite California’s budget deficit rising to $16 billion recently, Gov. Jerry Brown is asking state legislators for $6 billion in bonds to launch construction on the proposed high-speed rail system. Voters approved a $9.95 billion bond package for the “bullet train” in 2008, but just about everything about the rail system has changed since then. The California High-Speed Rail Authority (HSRA) issued a revised business plan in April that calls for a 130-mile segment running from Bakersfield to Madera in the state’s Central Valley. If the Central Valley leg is built, the plan says the system would eventually share tracks with commuter trains in the Bay Area and Los Angeles, in what it is calling a “blended” approach. Not exactly the bullet train from San Diego to Los Angeles to the Bay Area and Sacramento that voters were sold back in 2008. The last thing California should do right now is add billions more in bond debt. Beyond the most obvious – the state simply cannot afford it – there are at least five major reasons California shouldn’t move forward on this rail project.

#### States can’t Afford It themselves, they need government Support

SEHSR 2003

(Southeast High Speed Rail Corridor, October 2003, “Time to Act: Southeast States Legislative Program”

<http://www.sehsr.org/reports/time2act/actchapter8.htm>, accessed July 12, 2012, TRH)

Using a combination of federal and state funds, Virginia and North Carolina have completed more than 20 comprehensive studies in the last four years on the costs, benefits, and feasibility of implementing SEHSR service between Washington, DC, Richmond, Raleigh, and Charlotte. Virginia and North Carolina believe that essentially all the analyses necessary to qualify this segment of the SEHSR corridor for construction funding have been performed and the time has arrived to move toward developing a plan for implementation. South Carolina and Georgia are in the initial stages of conducting detailed SEHSR feasibility analyses, developing construction cost estimates, and projecting SEHSR economic development impacts on their states. Additional funds are needed to support these efforts.

### A2: States can get more funding

#### States won’t propose new tax schemes to fund their own high speed rail – it’s political suicide

O’Toole, Cato Institute Senior Fellow and Economics at Oregon, 2010

(Randall, 8-23-10, Cato Institute, “States Shy From HSR Money,” <http://www.downsizinggovernment.org/states-shy-from-hsr-money>, 7-3-12, GHK)

According the Wall Street Journal, federal officials blamed the drop in state interest in high-speed rail money on several factors. But state official confirmed to the Journal that the 20 percent match requirement was the primary reason. The states already have dedicated revenue sources for federal highway aid matching requirements (also 20 percent). With state tax revenues flat due to the recession, where would the money come from to pay for high-speed rail projects? Proposing new taxes to fund high-speed rail would probably be political suicide. And most state policymakers recognize that shifting money away from more popular programs to pay for high-speed rail won’t be any more politically rewarding. The issue is even affecting elections in states that are in line to receive federal funding for high-speed rail. Scott Walker, a Republican candidate for governor in Wisconsin, recently said he’d send back the $810 million in stimulus funds the state has received for a rail line between Madison and Milwaukee. Walker appears to understand that his state has more pressing infrastructure needs and that high-speed rail could become a fiscal black hole.

### Perm – States – Partnerships

#### Perm: do both – the permutation solves through federal and state partnerships

APTA 11

(APTA - American Public Transportation Association; nonprofit international association of 1,500 public and private member organizations; 4/6/2011; “Federal Investment in High-Speed Rail Could Spur 1.3 Million Jobs”; <http://www.apta.com/mediacenter/pressreleases/2011/Pages/110406_HSR_Business.aspx>; Kristof)

“U.S. businesses have been known for their cutting edge technologies and innovations, said Jeffrey Wharton, President of IMPulse NC. “We need to put this expertise to work, providing business and employment opportunities while catching up with the rest of the world in high-speed rail and its associated benefits.” “We are excited about the prospect of putting Americans to work building the rail tracks and equipment that will keep America’s economic recovery moving forward,” said Charles Wochele, Vice President for Industry and Government Relations at Alstom Transport. “We look forward to partnering with the federal and state governments to ensure these projects get off the ground.”

### Perm – States – USFG necessary

#### Perm: do the plan, then the counterplan – federal investment is a prerequisite for state investment

APTA 11

(APTA - American Public Transportation Association; nonprofit international association of 1,500 public and private member organizations; 4/6/2011; “Federal Investment in High-Speed Rail Could Spur 1.3 Million Jobs”; <http://www.apta.com/mediacenter/pressreleases/2011/Pages/110406_HSR_Business.aspx>; Kristof)

New report shows tangible economic benefits of investments in building a 21st century rail system Washington, DC – April 6, 2011 –The American Public Transportation Association (APTA) released a report detailing the enormous impact high-speed and intercity passenger rail projects will have in driving job development, while also rebuilding America’s manufacturing sector and generating billions of dollars in business sales. This report focuses on key issues critical to private investors as they consider investments or future expansion into businesses serving the growing passenger rail markets. The report, “The Case for Business Investment in High-Speed and Intercity Passenger Rail” reinforces the point that investments in high-speed and intercity rail will have many direct and indirect benefits. Nationally, due to proposed federal investment of high-speed rail over a six-year period, investment can result in supporting and creating more than 1.3 million jobs. This federal investment will be the catalyst for attracting state, local and private capital which will result in the support and creation of even more jobs. According to this new report, investments in building a 21st century rail system will not only lead to a large increase in construction jobs, but to the sustainable, long-term growth of new manufacturing and service jobs across the country.

## A2: Public Private Partnerships CP

### A2: Solvency – PPP

#### CP fails-- Public-private partnerships harmful for the public and delays action

**Dutzik & Schneider, 11**

(Tony & Jordan, Frontier Group Phineas Baxandall, U.S. PIRG Education Fund, “High-Speed Rail:

Public, Private or Both?”, <http://www.masspirg.org/sites/pirg/files/reports/MASSPIRGHigh-Speed-Rail.pdf>, accessed 7-10-12 BLE)

Public-private rail partnerships have the potential to unlock access to private capital, expertise, technology and economies of scale, and can also help mitigate the risk of high-speed rail projects to taxpayers. However, PPPs also come with a number of risks and costs, including: Higher costs for capital, as well as costs related to the profits paid to private shareholders. Also, heightened risk for the public once a project has begun, due to the ability of private-sector actors to hold projects hostage and demand increased subsidies or other concessions from government. And also, the costs of hiring and retaining the lawyers, financial experts and engineers needed to protect the public interest in the negotiation of PPP agreements and to enforce those agreements over time. Loss of control over the operation of the high-speed rail line, can result in important transportation assets being operated primarily to boost private profit rather than best advance public needs. Delays in the early stages of a project, as government and private partners engage in the difficult and complex task of negotiating PPP agreements.

#### CP fails—Public-private partnerships are empirically harmful and fail

**Dutzik & Schneider, 11**

(Tony & Jordan, Frontier Group Phineas Baxandall, U.S. PIRG Education Fund, “High-Speed Rail:

Public, Private or Both?”, <http://www.masspirg.org/sites/pirg/files/reports/MASSPIRGHigh-Speed-Rail.pdf>, accessed 7-10-12 BLE)

High-speed rail PPPs and efforts toward rail privatization abroad have a mixed track record. In Taiwan, the government’s efforts to pursue a fully private-sector built and financed high-speed rail line fell apart—despite rising ridership—as the private company responsible for building the line faced a financial crisis caused by its reliance on highcost debt. The Taiwan government ultimately stepped forward to bail out the company and refinance its debt. In the Netherlands, a series of problems led to massive cost overruns in the construction of a high-speed rail line, most of which became the responsibility of the government. The PPP process was characterized by illegal collusion among bidders for the construction contracts, poor coordination among the various contracts, and unexpected delays that required the government to provide emergency bailouts. In Great Britain, an effort to privatize the operation of the nation’s rail infrastructure led to a decline in the system’s safety. Excessive use of contracting, coupled with poorly designed incentives, caused delays in the response to known safety problems and a massive backlog of critical maintenance projects—problems that contributed to a deadly train accident in 2000. In the wake of that accident, the formerly private infrastructure provider was reorganized as a government regulated non-profit. Portugal engaged in thoughtful development of a PPP strategy for construction of its high-speed rail system. However, Portugal’s high-speed rail program still required a large investment of public resources and the nation may be responsible for paying financial compensation to its private sector partners if it pulls back on its high-speed rail construction plans in the midst of a devastating financial crisis.

#### CP fails-- Private entities more susceptible to debt which makes them unable to efficiently complete the project and takes the government down with it

**Dutzik & Schneider, 11**

(Tony & Jordan, Frontier Group Phineas Baxandall, U.S. PIRG Education Fund, “High-Speed Rail:

Public, Private or Both?”, <http://www.masspirg.org/sites/pirg/files/reports/MASSPIRGHigh-Speed-Rail.pdf>, accessed 7-10-12 BLE)

Private companies have higher long-term borrowing costs than public entities. According to analysis by Dennis Enright at NW Financial Group, an investment bank, public sector costs in 2007 for raising capital through debt were a full 35 percent less than the lowest cost a private entity could hope to obtain. Other academic studies confirm these consistently higher private capital costs. And since the recession it has become relatively more expensive for the private sector to borrow capital compared with the public, with U.S. government debt remaining at near rock-bottom interest rates. Because government officials can issue tax-free bonds and bond traders are willing to accept lower interest rates on public bonds, deals based on private capital are inherently more expensive than public financing. When investors purchase stocks or other forms of equity in private infrastructure companies, they take on greater risk than if they purchase private infrastructure bonds; therefore, they expect even higher rates of return. Thus, regardless of whether private companies raise capital through debt or equity, their costs will be higher than public financing. Another key credit-related risk of PPPs is the possibility that the cost of credit will increase—or that credit will dry up entirely—midway through a project. A private entity’s inability to obtain capital, or to obtain capital at the cost anticipated when the PPP was originally devised, can jeopardize the entity’s ability to carry out the project—leaving the government responsible either for bailing out the private entity or taking over the project midstream. Such a situation occurred with the construction of Taiwan’s high-speed rail line.

#### Private industry cannot implement HSR and PPPs are problematic- history and profitability

Peterman, Analyst in Transportation Policy for Congressional Research Service, Frittelli, Specialist in transportation policy for CRS, and Mallet, specialist in transportation policy for CRS, 2009

(David Randall, John, William J, 12/8/9, Congressional Research Service, “High Speed Rail (HSR) in the United States“, <http://www.fas.org/sgp/crs/misc/R40973.pdf>, 7/10/12, CNW)

Prospects for significant funding from the private sector are even less clear. Given the high upfront costs of developing a high speed line, and the uncertain prospect of a high speed line covering even its operating costs, let alone its development costs, there has not yet been a successful development of a privately financed high speed passenger rail line in the post-Amtrak era in the United States. 90 In fact, as noted earlier, some experts say that only two high speed rail lines in the world (not national systems, but individual routes) have been successful enough to cover both their development and operating costs. While partnerships between public and private entities may offer a way to develop high speed rail lines at less cost to taxpayers than having them developed entirely by public agencies, structuring such partnerships is complex, and it will take time for federal and state rail agencies to develop expertise in this area. 91

#### Federal Commitment is Necessary Or Private Investors Won’t Fund

Huffpost Detroit 2012

(Huffington Post, 6-25-12, Huffington Post, “M1 Rail, Woodward Streetcar Project, Considers Private-Sector Operators, <http://www.huffingtonpost.com/2012/06/25/m1-rail-woodward-streetca_n_1624420.html>, 7-11-12, GHK)

The backers of a rail line that would cover a 3.3 mile stretch of Detroit's Woodward Ave. are putting together a list of potential private-sector management companies they believe would be qualified to run the service -- should it become a reality. Crain's Detroit Business reports that the U.S. Department of Transportation has asked M1 Rail, a private-sector group led by businessmen Roger Penske, Dan Gilbert and Matt Cullen, for the names of potential operators as a condition of eligibility for up to $25 million in capital funding. The group currently has five firms under consideration but has declined to make those names public, according to Crain's. Last week, U.S. Secretary of Transportation Ray LaHood rejected the rail group's bid for $25 million in funding from the the department's current round of grants. In his letter LaHood said a number of obstacles would need to be resolved by the group so that it could qualify for alternative sources of federal funding. In order to be considered, he said the group would need: the development of an operating plan for the rail service; the development of a capital reserve or other strategy to keep the project afloat should it exceed costs; an agreement between M1 Rail, the state and local shareholders outlining the responsibilities of each; an acknowledgement from the Southeast Michigan Council of Governments or a similar body that it has the legal authority to provide the functions outlined in the group's plan; the authorization of a regional transit authority.

## A2: Airlines

### Airline efficiency Turns

#### HSR is key to solve airline congestion and promote efficiency

California High-Speed Rail Authority 2011

(NOVEMBER 1, 2011, “California

High-Speed Rail Program Draft 2012 Business Plan”, <http://www.cahighspeedrail.ca.gov/assets/0/152/302/c7912c84-0180-4ded-b27e-d8e6aab2a9a1.pdf>, accessed 7-5-12, ET)

Other countries’ experiences demonstrate that high-speed rail meets some specific transportation needs more effectively and efficiently than other modes. As shown in Exhibit 1-2, for trips between 100 and 600 miles, automobile and air travel become inefficient measured in cost, time, energy, and greenhouse gas emissions. High-speed rail is much more efficient and economical for these shorter intercity trips, yielding substantial savings in cost, fuel, safety, and time, as well as environmental benefits. The availability of high-speed rail between key cities can free airport capacity for long-haul flights, promoting efficiency in both modes. An example of this is the implementation of high-speed service between Madrid and Seville, Spain. The share of passengers using rail for trips between the two cities increased from 16 percent to 51 percent, and the total traffic between the two cities increased by 35 percent overall; this indicates that high-speed rail induced some travelers to make the trip between Seville and Madrid that previously were not travelling between those destinations

#### HSR solves traffic and air travel congestion

Grossman, 2008

(David, “The case for high speed rail in America”, 8/25/2008 USA Today, <http://www.usatoday.com/travel/columnist/grossman/2008-08-22-high-speed-rail_N.htm>, 7/5/12, ML)

The proposal has sparked numerous fights within the state. There are many vocal opponents to the high speed rail project while others want to amend the proposition before it is even voted upon. Critics and those with a self interest in keeping the status quo maintain that America's suburban sprawl is different from Europe or Japan and that the trains will travel empty along the high speed route. But past evidence would suggest otherwise. Since Amtrak beefed up its service in the Northeast corridor with the launch of the high speed Acela trains, their market share has grown fourfold, from 12% just a few years ago to more than 50% of the air/rail market in the Northeast Corridor today. And a huge proportion of those Acela riders are business travelers. Of all the money-losing routes on the Amtrak network, the Northeast corridor is the one exception and a similar high speed service in the most populous state on the other side of the country would likely garner the same effect, relieving much of the congestion on the roads and in the skies that are the bane of California. High speed rail is not for long distance travel. High speed rail works well with segments of 250 to 500 miles where the two to four hour train ride rivals the total time of air travel, including the trip to the airport and all that time waiting around. Routes like Chicago to St. Louis, Chicago to Detroit, or Dallas to Houston and many other similar distanced major city pairs are a natural fit for high speed rail lines. If high speed rail is implemented correctly, as has been done in many European countries with rail lines running right into airport terminals, transfer from plane to train will be seamless and render the need for flights of less than 500 miles unnecessary in most cases. The fuel and emissions savings of electrified rail lines would be enormous and the productivity gains amassed from unclogging our skies and highways would be substantial if such a national high speed rail network could be implemented and fully integrated with the existing air transport system.

### No Link – competition

#### HSR will not trade off with airlines – not cost-competitive

O’Toole 9

(Randal, September 9, senior fellow with the Cato Institute, Cato, High-Speed Rail Is Not “Interstate 2.0”, <http://www.cato.org/pubs/bp/bp113.pdf> CL)

At the time of this writing, $99 will get you from Washington to New York in 2 hours and 50 minutes on Amtrak’s high-speed train, while $49 pays for a moderate-speed train ride that takes 3 hours and 15 minutes. Meanwhile, relatively unsubsidized and energy-efficient buses with leather seats and free Wi-Fi cost $20 for a trip that takes 4 hours and 15-minutes between the two cities. Airfares start at $119 for a 1-hour flight. High-speed rail plans in other parts of the country propose similar fare premiums. Midwest high-speed rail fares “will be competitive with air travel,” says the Midwest High Speed Rail Initiative, and will be “up to 50 percent higher than current Amtrak fares to reflect improved services.”36 Few who pay their own way will spend five times as much for a high-speed train ticket to save less than 90 minutes of their time—and those who value their time that highly would spend another $20 for a plane ticket that would save them an additional hour. Rail advocates respond that high-speed trains have an advantage over flying when adding the time it takes to get between downtowns and airports. Yet less than 8 percent of Americans work in downtowns.37 Who are they? Bankers, lawyers, government officials, and other high-income people who hardly need taxpayer-subsidized transportation.

#### No Airline Tradeoff – Japan is a Bad Analogy

Clever and Hansen, Department of Civil and Environmental Engineering, University of California, Berkeley, No Date

(Reinhard and Mark, No Date, ThinkMetric, “Interaction of Air and High-Speed Rail in Japan,” <http://thinkmetric.com/pubs/japan/airHSRinteraction.pdf>, 7-10-12, GHK)

The Tokyo–Fukuoka corridor is considerably more densely populated than the New York–Atlanta corridor. Land use is different because many businesses in the New York–Atlanta corridor are located in the suburbs, and a downtown-to-downtown connection does not give rail the competitive advantage that it has in Japan. Ridership would be lower, which means that HSR could not offer the high-accessibility, high-frequency, and high-speed service as in Japan and would have to ﬁnd an optimal trade-off for the region. Figure 1a compares transit rail’s share of domestic passenger-kilometers of the United States and Japan. It is evident that HSR in this country would lack the conventional rail feeder services it enjoys in Japan. All of this would imply that the impact of high-speed rail competition would not nearly be as dramatic as in Japan. It would be extremely unlikely for airlines to abandon markets such as New York– Washington, D.C. (equivalent to Tokyo–Nagoya) or to severely curtail their hub-and-spoke system. However, it would be reasonable to expect a lot more point-to-point ﬂights (mostly nonstop), with those ﬂights operating with an on-time performance not seen for a long time in the United States.