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CP TEXT: The United States federal government should substantially increase its investment in a network of transnational “fast enough” railroads through incremental service improvements.

We’ll clarify.

*CP solves best* – generates support for future increases while avoiding political backlash

Gulliver Business Travel, July 3rd, 2011 (writer, The Economist, “How fast is fast enough?” http://www.economist.com/blogs/gulliver/2011/07/high-speed-rail >:)

Yes, bullet trains speeding at 180 mph [290 kph] or more from major city to major city are great for business execs in a hurry and on an expense account. But the more **conventional, cheaper, *"fast enough"*** high-speed rail lines like [the West Rhine line](http://en.wikipedia.org/wiki/West_Rhine_Railway) **are the *real backbone* of the German passenger rail system and** **that of *most other industrialized nations.*** And it is **from these examples that *America has*** the most ***to learn***, especially since it now looks as if the U.S. ***isn't going to build* any real high-speed rail** lines, except possibly in California, anytime soon. In an ironic twist, between the mounting concern over the state and federal deficits and **growing Republican** and NIMBY **opposition** to high-speed rail, the Obama administration is being forced to settle for incremental projects that will only bring passenger rail service up to the kind of standards found on the West Rhine line. And that's a good thing, provided Republicans **don’t** [**want to**] succeed in **kill**ing **passenger trains** in the United States altogether, as they are increasingly wont to try. Mr Longman contends that America's **passenger rail system is *so bad* that** even simply **upgrading to *"fast-enough"*** trains would represent a **vast improvement** in service **that would** **build *ridership and political support for further upgrades.*** Right now, he argues, building **true high-speed rail in America** would be "so **expensive, disruptive, *contentious, and politically risky*** that it just might not be possible." The key **tipping point,** Mr Longman says, is when taking the train ***becomes faster than driving***. And several factors are more important than speed. On-time performance is crucial, and perhaps Amtrak's biggest problem. Mr Longman thinks this can be fixed with "**incremental investment** in new sidings and track capacity to make sure ***freight trains* don’t get in the way**." Improving frequency of service could also help, Mr Longman argues.

# LOST Bad

Battle over LOST is coming soon, but it won’t pass – first priority for Congress post-election

Dan **Joling**, August 17th, 2012, **8/17** (writer, Juneau Empire, “Murkowski hopeful on passing the Law of the Sea treaty,” <http://juneauempire.com/dan-joling/2012-08-17/murkowski-hopeful-passing-law-sea-treaty#.UEGIEdYia3F> >:)

ANCHORAGE — Melting summer sea ice is opening up the Arctic Ocean to commercial opportunities but the United States could miss them if it doesn’t sign the Law of the Sea treaty, according to U.S. Sen. Lisa Murkowski. The Alaska Republican hopes the Senate will vote to sign the treaty during the lame duck session following the November election. The treaty sets up a system for resolving disputes in international waters. It has been around since the Reagan administration, and 162 countries have signed on. “This is a treaty that I believe very strongly will contribute not only to our national security, but will allow us a level of certainly in accessing our resources in the north,” Murkowski said Wednesday. The Constitution requires two-thirds of the Senate — 67 votes — to ratify a treaty. The treaty recognizes sovereign rights over a country’s “exclusive economic zone” — the area covering its continental shelf out to 200 nautical miles. It recognizes rights beyond that zone if the country can provide evidence to substantiate its claims. That’s exactly what could happen off Alaska’s northern shore, Murkowski said. Outer continental shelf mapping indicates the United States could claim an area the size of California, she said. “I don’t want us, as an Arctic nation, to abandon those opportunities, and we would be doing that if we fail to ratify the Law of the Sea treaty,” Murkowski said. The treaty has support from the president, most Senate Democrats, the U.S. Chamber of Commerce, and the military. “Anybody with a star on their shoulder has sat before the Foreign Relations Committee and testified about why it’s so important, so critical, to this nation,” she said. She has worked with Sen. John Kerry, D-Mass., to educate fellow senators on the pact’s importance. Proponents faced a setback in June, she said, when Sens. Rob Portman, R-Ohio, and Kelly Ayotte, R-N.H., said they had concerns about the breadth and ambiguity of the treaty and that it was not in the national interest at that time. Their decision meant opponents had [have] enough votes to block ratification unless some senators change their minds. In the upcoming months, Murkowski said, representatives from shipping, telecommunications, petroleum and even tourism interests will make the case for the treaty. She said opponents are not worried U.S. interests could be exposed to international litigation. Instead, she said, they see a loss of U.S sovereignty if the United Nations is involved. “There are some colleagues — if the United Nations is in the title of any treaty, it’s an automatic no,” Murkowski said. “But the reality is the treaty has been amended or adapted from the time President Reagan was in office, and had concerns about it, to address some of the issues that have been raised.” The chance of treaty approval in November or December, she said, will depend on whether special interests such as the U.S. Chamber will push the measure as a priority over other legislation such as automatic deficit reduction or tax cut extension. “The concern is, we have these advocates, but they’re going have to prioritize what they’re going to be pushing for hardest,” Murkowski said.

Plan is a massive win for Obama

**Cooper**, 1/25/20**12** (Donna – Senior Fellow with the Economic Policy team at American Progress, Will Congress Block Infrastructure Spending?, Center for American Progress, p. <http://www.americanprogress.org/issues/2012/01/infrastructure_sotu.html>)

Just as America refocused its war resources on building our nation’s highway system after World War II, President Barack Obama’s State of the Union address included a courageous call for Congress to redirect half of the funds formerly claimed for the war in Iraq to rebuild our nation’s crumbling infrastructure. His strong pitch for putting Americans to work repairing our infrastructure is an essential element of the president’s strategy to help the middle class grow and prosper. At first glance it would appear that the president’s call to invest in infrastructure should enjoy wide bipartisan support. The leadership of both parties in Congress is on record as strong advocates for rebuilding the nation’s roads, bridges, rail, ports, and airports. On Fox News earlier this week, Speaker of the House John Boehner (R-OH) said he wants the president to follow the recommendations of the White House Jobs and Competitiveness Council on increasing federal investments in infrastructure (look for the transcript on the speaker's blog). And Senate Minority Leader Mitch McConnell (R-KY) is on the record saying, “Everybody knows we have a crumbling infrastructure. Infrastructure spending is popular on both sides. The question is how much are we going to spend.” Senate Majority Leader Harry Reid (D-NV) and House Minority Leader Nancy Pelosi (D-CA) also strongly support President Obama’s infrastructure plans. But bipartisanship isn’t always what it seems, especially when it comes to infrastructure. In 2011 Republicans in the House and Senate unveiled a new strategy that linked new infrastructure investments with divisive environmental proposals. They know this linkage is unacceptable to the president, Senate Democrats, and most of the American public. Yet congressional Republicans are making this push so they can block movement to create jobs and rebuild our infrastructure while sounding like they are in favor of policies that do both. This is a serious claim, but the evidence is clear. In the past year, instead of rolling up their sleeves and drafting long-term highway and aviation spending bills, the House leadership cranked out a package of bills that include measures to weaken clean water and clean air protections and to restrict union organizing. They disingenuously called this a "jobs package." In spite of the compelling evidence that federal investments in infrastructure are an effective tool for creating jobs—the U.S. Department of Transportation 2007 estimates indicated that $1 billion in highway investments can create 27,800 jobs—this “jobs package” included the House-passed fiscal year 2012 budget bill that makes deep cuts in spending for highway and other surface transportation repairs. This package of bills willfully neglects the dire state of our aging infrastructure and the need to create more well-paying construction jobs. They haven’t stopped there. While ignoring the president’s very popular American Jobs Act, they’ve joined the all-out offensive campaign to push the environmentally dangerous Keystone pipeline project, claiming it as their solution to the jobs crisis. This project is more like a jobs pipedream. It’s already three years behind schedule and may never see the light of day due to broad-based U.S. opposition to building the pipeline, including from the Republican governor of Nebraska, who opposes the pipeline route through his state. None of this is news to the House Republicans. They are desperate to shift attention away from their failure to advance legislation to address our nation’s crumbling infrastructure because they are more concerned with blocking a jobs victory for President Obama that would help him win the 2012 presidential election. Emblematic of this strategy was the announcement in a November House leadership press conference where Speaker Boehner indicated that he intended to release a multiyear highway funding bill early in 2012 and fund it with revenues dependent on a massive expansion in oil-and-gas drilling offshore and on public lands, including in the Arctic National Wildlife Refuge in Alaska. The only problem is that the House leadership knows that this drilling-dependent approach is likely to be dead on arrival in the Senate. Just this past May, 57 senators voted against a motion to proceed to consider the House bill to permit expanded offshore oil-and-gas drilling. If the House leadership were sincere about creating new construction jobs, then why not start by getting behind a bill that can pass both chambers so that private contractors can get to work repairing more of the 150,000 bridges that need it or the $52.3 billion in improvements needed at the nation’s airports? Instead we are now on the eighth temporary extension of a federal highway bill that expired in 2009 and now only runs through the end of March 2012. Then there’s the Federal Aviation Administration funding bill. Yesterday before the president’s State of the Union address, House Transportation Committee Chairman John Mica (R-FL) held a vote for the 23rd temporary extension of the legislation that will provide funding for our airport safety and construction only through the end of February 2012. These extensions enable the status-quo level of inadequate funding for infrastructure to limp along while our national assets crumble. The House Republicans have blocked the passage of a long-term aviation funding bill for the past two years, demanding that arcane and unfair union election rules be included in the bill. As of today a compromise among all parties takes the union issue off the table. But there are many more details to work out, including the level of funding and what is funded. Given the Republican track record on passing the legislation that is needed to rebuild our infrastructure, it is premature to consider this aviation funding bill a done deal. The House is not the only problem. Sen. Reid late in 2011 put the president’s American Jobs Act, which included $60 billion to repair our schools and fund a National Infrastructure Bank, to a vote, but Senate filibuster rules that require 60 favorable votes to put a bill on the floor for consideration made moving this infrastructure funding bill impossible. After failing to reach that 60-vote threshold, Sen. Reid said, “Republicans think that if the economy improves, it might help President Obama. So they root for the economy to fail and oppose every effort to improve it.” Indeed, Sen. McConnell blocked passage of the Senate version of the Jobs Act while lambasting the president for pointing it out and blasting the Senate Democrats for not working with the House Republicans to reach a compromise. But that statement begs the question of why McConnell isn’t working with his own party’s leadership in the House to make sure the Senate receives a bill that has a chance of a positive vote. The answer is clear: The Republican leadership is very concerned that responding to the American popular call for infrastructure investment will benefit President Obama politically—never mind the pain suffered by the American people and our future economic competitiveness by their failure to act. The president should not be deterred, however, by the roadblocks he faces in Congress. In his speech in Kansas this past December, he summoned the nation to redouble its commitment to an economy that lifts all boats. Echoing President Theodore Roosevelt’s progressive sentiments, he said: We simply cannot return to this brand of "you're on your own" economics if we're serious about rebuilding the middle class in this country. We know that it doesn't result in a strong economy. It results in an economy that invests too little in its people and in its future. We know it doesn't result in a prosperity that trickles down. It results in a prosperity that's enjoyed by fewer and fewer of our citizens

That’s key to ratify LOST – Obama needs a win to pass his post-election agenda

Halimah **Abdullah**, June 8th, 20**12** (CNN political correspondent, “Could Congress go from bad to worse after election?” http://www.cnn.com/2012/06/08/politics/congress-worse-election/index.html?eref=rss\_politics&utm\_source=feedburner&utm\_medium=feed&utm\_campaign=Feed%3A+rss%2Fcnn\_allpolitics+%28RSS%3A+Politics%29 >:)

Washington (CNN) -- Think this current climate of political polarization is bad? Things could get even uglier in 2013. With a third of the Senate and every seat in the House up for election this year, each side is already bragging about how likely it is they will win back or take over the next Congress. But if the past three years are any indicator, no matter if the Republicans or Democrats control the House or Senate -- or both -- gridlock, brinkmanship and stalemate could continue to plague the next president and frustrate the American electorate. The ongoing back and forth Friday between the White House and Republican leadership over exactly who is at fault for the weak economy offers a glimpse into what's in store. "One of the things that people get so frustrated about is that instead of actually talking about what would help, we get wrapped up in these political games. That's what we need to put an end to," President Barack Obama said on Friday, a day when politicos on both sides of the aisle played the blame game over the country's fiscal troubles. Voters have been clear in expressing their displeasure with Congress, whose approval ratings -- currently only 15% of Americans polled think Congress is doing a good job -- have been in the basement for much of the past few years. And it doesn't stop there. Just look at, for instance, Congress' work habits. The Republican-controlled House's frequent election-year recesses do little to clear the mountain of legislative work off their plates and have rankled such Democratic colleagues as House Minority Leader Nancy Pelosi, D-California. "Instead of recessing yet again, the House should remain at work and pass critical legislation that will create jobs for the middle class that will actually be signed into law. Republicans must not run out the clock on the economy," Pelosi wrote in a letter to House Speaker John Boehner, R-Ohio, this week, adding that the upcoming recess is the ninth weeklong break this year. Whether President Obama or Republican Mitt Romney occupies the Oval Office next year, both men are facing an indigestion-inducing plate full of domestic problems. Either one could, for instance, have to preside over a dramatic overhaul of the health care reform law if the Supreme Court strikes down the individual coverage mandate as unconstitutional this month. The original law passed in 2010 without a single Republican vote in the House or the Senate. The backlog of bills that have passed in one chamber but are in limbo in another include the hotly debated transportation bill. Many House Republicans want any deal on the transportation construction measure to include approval of the Keystone XL oil pipeline. In the Senate, both parties are at loggerheads on the best way to address mushrooming student loan rates. If the balance of power in the Senate shifts to the Republicans, as some political analysts expect, or Democrats and Republican end up with a near equal number of seats, partisan gridlock could become even worse. Both the Cook Political Report and the Rothenberg Political Report suggest that at least two to four Senate seats are in play, including open seats in the battleground states of Virginia and Wisconsin. Seats in Massachusetts, Nevada, New Mexico and Maine are also competitive. "You can expect these bitter times to continue," said Thomas Mann, a senior fellow at the Brookings Institution and co-author of the book "It's Even Worse Than It Looks: How the American Constitutional System Collided With the New Politics of Extremism." It's little wonder why. A new Pew Research Center study found that the nation is more politically polarized than it has been in the past 25 years and "the values gap between Republicans and Democrats is now greater than gender, age, race or class divides." So, there's little chance of compromise on solutions for shoring up the ailing economy and stanching job losses as the country braces for the impact of more than $1 trillion in mandatory budget cuts set to kick in next year. Should Obama win re-election, he'll be a second-term president facing a narrow window to accomplish policy goals before he enters the lame duck phase of his office. "If president Obama is re-elected he will have to work with a Republican Senate to define his legacy," said Nathan Gonzales, deputy editor of The Rothenberg Political Report. Obama's "big opportunity will be 2013." That's the same year sequestration, massive mandatory across the board budget cuts, are triggered as part of a congressional deal that allowed Obama to raise the debt ceiling. The large defense budget, which many Republican lawmakers defend as necessary to maintain, will face substantial cuts. Ironically, Obama may have to take a harder, more partisan line in order to get his agenda passed, Mann said. "It's his second term. The country is facing serious problems," Mann said. "If the Republicans are playing an opposition game I can't imagine he can[‘t] peacefully engage in constructive negotiations with (Republicans). He would find the same problem he faces today."

Ratification by 2012 is necessary for Arctic seabed mining

Josh **Rogin**, May 23rd, 20**12** (writer, Foreign Policy, “Clinton: Ratify Law of the Sea treaty this year,” <http://thecable.foreignpolicy.com/posts/2012/05/23/clinton_ratify_law_of_the_sea_treaty_this_year> >:)

[If] The U.S. Senate should ratify the Law of the Sea Treaty before the end of the year because it is in Amerca's economic and national security interests, Secretary of State Hillary Clinton will testify today. [card continues – ot available on req] She will argue that the United States benefits from the treaty's maritime freedom of navigation provisions and she will maintain that American business will benefit from the treaty's provisions governing mining rights along U.S. coastlines. "Off the north shore of Alaska, our continental shelf could extend 600 miles into the Arctic," she will say. Clinton will argue that U.S. companies are ready to participate in deep seabed mining but that the United States needs to be a party to the treaty so that American businesses can take advantage of mining opportunities outside the country's exclusive economic zone.

That causes drilling accidents leading to methane release

David **Adam**, April 3rd, 20**05** (science correspondent, The Guardian, “US in race to unlock new energy source,” <http://www.guardian.co.uk/society/2005/apr/04/usnews.science> >:)

The stakes could not be higher: scientists reckon there could be more valuable carbon fuel stored in the vast methane hydrate deposits scattered under the world's seabed and Arctic permafrost than in all of the known reserves of coal, oil and gas put together. "The amount of energy there is just too big to ignore," said Bahman Tohidi, head of the centre for gas hydrate research at Heriot Watt University in Edinburgh. "It's not easy, but it's not something we can say we can't do so let's forget about it." Britain may miss out on any future methane hydrate boom - the North Sea is too shallow and no deposits have been found in the [nearby] deeper waters further north - but other countries have recognised their potential. Japan, India and Korea, as well as the United States, are investing millions of pounds in hydrate research. Ray Boswell, who heads the hydrate programme at the US department of energy's national energy technology laboratory, said the US was determined to be the first to mine the resource. "Commercially viable production is definitely realistic within a decade. The world is investing in hydrates, and one reason for us to do this is to maintain our leadership position in this emerging technology." Its new project will see the drilling vessel Uncle John spend about a month in the Gulf of Mexico, where it will bore down to two of the largest expected methane hydrate deposits in the region. Scientists on the ship will collect samples for experiments to see how the methane might be freed and transported to the surface. This is harder than it sounds. In some deposits the crystals occur in thick layers, in others they are found as smaller nuggets. Puncture one hydrate reservoir and the giant release of gas can disrupt drilling, pierce another and getting the methane out is like sucking porridge through a straw. This unpredictable nature means energy companies traditionally view hydrates as a nuisance. This gives them a joint interest with the US government as both sides want to know where the crystals are - one to avoid them and the other to exploit them. Mr Boswell said: "We have a marriage of near-term industry interests and longer-term government interests. If they develop the ability to detect hydrates for the purpose of avoiding them, that's useful for people who want to do the exact same thing for the purpose of finding them." Devinder Mahajan, a chemist at the US department of energy's laboratory in Brookhaven, is looking for ways to encourage subsea hydrate deposits to release their methane. He has developed a pressurised tank that allows scientists to study hydrate formation. "You fill the vessel with water and sediment, put in methane gas and cool it down under high pressure. After a few hours, the hydrates form, you can actually see it. They look like ice, but they're not," he said. "This is a very important issue, tied to our future national energy security." Hydrates on land are easier to get at, and in 2003 a team of oil companies and scientists from Canada, Japan, India, Germany and the US showed it was possible to produce methane from the icy deposits below Canada's Northwest Territories. BP and the US government are carrying out similar experiments in Alaska. Environmental groups oppose attempts to extract methane from hydrate reserves. Roger Higman, a climate change campaigner with Friends of the Earth, said: "The Americans are desperately looking around trying to boost their fossil fuels because they think the oil is going to run out or there's going to be a scarcity. The actual scarcity is in the space the atmosphere has for taking the carbon dioxide that burning methane produces." He added: "We already have enough fossil fuel in the world that, if burnt, will ruin the world's climate. Rather than look for more, we need to keep the oil, gas and coal we already know about underground and develop alternative sources of energy, principally renewables." Paul Johnston, a scientist in the Greenpeace laboratory at Exeter University, warned that disturbing hydrate deposits under the seabed was a risky strategy. "There are legitimate concerns that attempts to tap into these reserves could cause very widespread destabilisation of the seabed and damage to ecosystems," he said. Methane is a far more potent greenhouse gas than carbon dioxide, he said, and any released during production would make global warming worse.

Extinction – outweighs global nuclear war

**Ryskin ‘3** (Gregory Ryskin, Department of Chemical Engineering, Northwestern University, “Methane-driven oceanic eruptions and mass extinctions,” Geology, 31(9), September 2003, <http://pangea.stanford.edu/research/Oceans/GES205/methaneGeology.pdf>)

METASTABILITY AND ERUPTION A liquid subject to gravity and completely or partially saturated with dissolved gas is, thermodynamically, in a metastable state. Consider for clarity the case when the concentration of the dissolved gas is only slightly below saturation throughout, and thus increases downward in accordance with Henry’s law. Then locally there is no tendency for the dissolved gas to exsolve (to form bubbles), in spite of the fact that nuclei are abundant in seawater. (Exsolution would lead to a slight increase in free energy: below saturation, the chemical potential of the gas species is lower in solution than in the free gas phase.) At the same time, the free energy of the system as a whole would be greatly reduced if most of the dissolved gas were to somehow escape from solution and collect above the liquid. (This free energy reduction is due to the fast decrease of the chemical potential of gas with a drop in pressure.) Thus, the system is in a metastable state, albeit an unusual one. Strictly speaking, this state is not an equilibrium one even locally: the increase of the solute concentration with depth causes a diffusion flux directed upward, which, given sufficient time, could bring the system into the above state of minimum free energy. However, the continuous supply of methane by the rising bubbles from the seafloor ensures that the concentration profile will remain nonuniform, slowly approaching the saturation one. Even if that supply were to cease, the diffusion time scales are so long that this path toward the global energy minimum can be ignored. A very fast transition from this metastable state can be triggered by disturbances that displace fluid a finite distance in the vertical direction. Such disturbances may result from an earthquake, a seafloor volcano, convection currents due to geothermal heating, or an internal gravity wave. Consider a parcel of fluid that is displaced upward, and is now subject to lower hydrostatic pressure, to which corresponds a lower solubility value. As a result, the fluid in the parcel is now supersaturated with the dissolved gas, which must begin to exsolve, forming tiny gas bubbles. (If the fluid in its original position was only partially saturated, exsolution will begin after the parcel has risen through some significant distance, so in this case the initial disturbance must be sufficiently large.) The volume of the ascending parcel of fluid increases due to the formation of bubbles, making it more buoyant and accelerating its rise; this leads to further reduction in the ambient pressure, further exsolution of gas, and further increase in the volume of the parcel. This self-accelerating motion entrains the surrounding fluid; exsolution of the gas in the latter reinforces the motion. The result is a violent eruption (Kling et al., 1987; Zhang, 1996). From the initial eruption site, hydrodynamic disturbances propagate in all directions (via turbulent entrainment and/or internal gravity waves), triggering eruptions at other sites. Similarly to transitions from other metastable states (e.g., boiling of a superheated liquid), the eruption should spread quickly throughout the region of the ocean where the water column is saturated, or partially saturated, with gas. In spite of the low solubility of methane in seawater, the total possible increase in the buoyancy of the parcel can be large. Consider a parcel that started its rise at 4 km depth, where solubility of methane is ;4.3 3 1023. Then, if the parcel had a volume of 18 cm3 (1 mol of water) and was saturated with methane, it contained 4.3 3 1023 mol of dissolved methane. By the time this parcel has risen to the surface, essentially all the methane in the parcel has exsolved (solubility is ;2 3 1025 at the surface). At the surface conditions (T ø 25 8C, P 5 1 bar), 1 mol of any gas occupies 25 3 103 cm3, so the total volume of methane in the parcel is ;108 cm3, and the volume of the parcel, which now contains a mist of water droplets in gaseous methane, is 126 cm3. That is, the volume of the parcel has increased by a factor of seven. Concurrent exsolution of other dissolved gases (e.g., carbon dioxide CO2, hydrogen sulfide H2S) will add to the effect. A rather similar process is responsible for the most violent, explosive volcanic eruptions (called Plinian), such as eruptions of Mount Vesuvius in A.D. 79 or Mount St. Helens in 1980. These eruptions are driven by exsolution of gases (primarily water vapor) dissolved in the liquid magma. In Lake Nyos (Cameroon), CO2 of magmatic origin enters the water column from the bottom, at a depth of ;200 m. In 1986, the lake erupted, creating a gas-water fountain ;120 m in height (Zhang, 1996), and releasing a lethal cloud of CO2. A water surge washed up the shore to a height of ;25 m. The eruption continued for several hours (Kling et al., 1987). OCEANIC ERUPTION AS A CAUSE OF MASS EXTINCTION The consequences of a methane-driven oceanic eruption for marine and terrestrial life are likely to be catastrophic. Figuratively speaking, the erupting region ‘‘boils over,’’ ejecting a large amount of methane and other gases (e.g., CO2, H2S) into the atmosphere, and flooding large areas of land. Whereas pure methane is lighter than air, methane loaded with water droplets is much heavier, and thus spreads over the land, mixing with air in the process (and losing water as rain). The air-methane mixture is explosive at methane concentrations between 5% and 15%; as such mixtures form in different locations near the ground and are ignited by lightning, explosions 2 and conflagrations destroy most of the terrestrial life, and also produce great amounts of smoke and of carbon dioxide. Firestorms carry smoke and dust into the upper atmosphere, where they may remain for several years (Turco et al., 1991); the resulting darkness and global cooling may provide an additional kill mechanism. Conversely, carbon dioxide and the remaining methane create the greenhouse effect, which may lead to global warming. The outcome of the competition between the cooling and the warming tendencies is difficult to predict (Turco et al., 1991; Pierrehumbert, 2002). Upon release of a significant portion of the dissolved methane, the ocean settles down, and the entire sequence of events (i.e., development of anoxia, accumulation of dissolved methane, the metastable state, eruption) begins anew. No external cause is required to bring about a methane-driven eruption—its mechanism is self-contained, and implies that eruptions are likely to occur repeatedly at the same location. Because methane is isotopically light, its fast release must result in a negative carbon isotope excursion in the geological record. Knowing the magnitude of the excursion, one can estimate the amount of methane that could have produced it. Such calculations (prompted by the methane-hydrate-dissociation model, but equally applicable here) have been performed for several global events in the geological record; the results range from ;1018 to 1019 g of released methane (e.g., Katz et al., 1999; Kennedy et al., 2001; de Wit et al., 2002). These are very large amounts: the total carbon content of today’s terrestrial biomass is ;2 3 1018 g. Nevertheless, relatively small regions of the deep ocean could contain such amounts of dissolved methane; e.g., the Black Sea alone (volume ;0.4 3 1023 of the ocean total; maximum depth only 2.2 km) could hold, at saturation, ;0.5 3 1018 g. A similar region of the deep ocean could contain much more (the amount grows quadratically with depth3). Released in a geological instant (weeks, perhaps), 1018 to 1019 g of methane could destroy the terrestrial life almost entirely. Combustion and explosion of 0.75 3 1019 g of methane would liberate energy equivalent to 108 Mt of TNT,; 10,000 times greater than the world’s stockpile of nuclear weapons, implicated in the nuclear winter scenario (Turco et al., 1991).

# FTO

The US freight train network is amazing now – the plan reduces efficiency

Yonah **Freemark**, July 24th, 20**10** (transportation writer, The Transport Politic, “The U.S. Emphasis on Passenger Rail and the Future of Freight,” <http://www.thetransportpolitic.com/2010/07/24/the-u-s-emphasis-on-passenger-rail-and-the-future-of-freight/> >:)

» **Industry**, citing experience with Amtrak, is **concerned** that more **passenger rail** services could increase costs and ***reduce freight*** train ***movements***. The American intercity rail system, it is frequently argued, is notable for the ***world-class* efficiency** of its **freight trains** and the miserable record of its passenger system. While we transport a huge percentage of our goods on track, we move just a tiny percentage of people as such. The Obama Administration, of course, is spending billions to change that situation, investing in true high-speed lines in California and Florida and upgrades to existing track in Illinois, North Carolina, Wisconsin, and elsewhere. Though the current commitment isn’t yet enough to produce service [that will connect](http://www.nwprogressive.org/weblog/2010/07/live-from-las-vegas-ray-lahood.html) “80% of America,” it will significantly improve the performance of **passenger trains** in certain areas. Will those improvements, however, **come to the** ***detriment of freight*** service? The Economist [addressed that issue](http://www.economist.com/node/16636101?story_id=16636101&fsrc=rss) this week in a shock article that suggests that passenger rail is not directly compatible with cargo. The industry, [already worried](http://www.bloomberg.com/news/2010-07-23/union-pacific-chief-says-u-s-congress-s-policies-are-derailing-investment.html) that the government is planning re-regulation (the railroads were [deregulated in 1980](http://en.wikipedia.org/wiki/Staggers_Rail_Act)), is convinced that its willingness to allow Amtrak on its tracks costs $240 million in lost fees each year, and it has already been subjected to a required $15 billion upgrade to install [positive train control](http://www.fra.dot.gov/Pages/1265.shtml). According to the article, by allowing more passenger trains on freight track, the **efficiency of the freight system could be *reduced***, and that would lead to increasing costs for consumers. American freight transport costs on average about one-half of similar services in Japan and France and one-third of those in Italy. Each of those countries has far more effective passenger rail services than the U.S. Indeed, there are some merits to the argument that an increasing **intermixing** of passenger and freight trains will lead to ***reduced effectiveness*** **of** the **shipping** industry, not to mention less-than-perfect reliability for passengers. The primary reason is that passenger and freight trains travel at different speeds on the same corridor. As shown by the following image from the British government’s [Command Paper](http://webarchive.nationalarchives.gov.uk/+/http:/www.dft.gov.uk/pgr/rail/pi/highspeedrail/commandpaper/pdf/cmdpaper.pdf) for its High-Speed 2 program, allowing trains to run at different speeds on the same track could reduce capacity enormously. If you were to follow a 300 km/h train by a conventional train running at 200 km/h, you would eliminate the potential to run up to six trains at 300 km/h speeds — because they would run into the slower train otherwise. This situation worsens the longer the corridor. In other words, in terms of capacity there are major advantages to running all of the trains on the same line at the same speed. (This chart provided one of the arguments for the UK’s decision to only allow true high-speed trains on its [planned expansion](http://www.thetransportpolitic.com/2010/03/14/y-shaped-british-hs2-program-to-connect-london-and-birmingham-by-2026/).) Freight trains are limited to slower speeds — around 50 mph — than even the relatively slow people-carrying trains the Obama Administration is promoting on some corridors, running at 79 and 110 mph. The private cargo companies that own the tracks to be used by these passenger trains are rightfully concerned that intermixing slower and faster vehicles will induce serious reductions in capacity. Is this result, likely meaning increasing freight transportation costs, worth the benefits of more passenger trains? Should the U.S. ***sacrifice its excellent freight*** transportation **system** for a mediocre passenger network? Fortunately, the situation is not nearly as dire as the Economist suggests. For one, the vast majority of freight movements are through rural areas in the Western U.S., few of which are likely to see many passenger trains any time in the next century. Second, the true high-speed rail lines first planned for California and Florida will feature brand-new track, doing little to freight services. Third, with appropriate coordination between freight companies and the passenger services — such as promoting shipping during the night (done on New Jersey’s[RiverLine corridor](http://web.presby.edu/~jtbell/transit/Camden-Trenton/)) — many problems could be avoided. Nevertheless, there are some places where improved passenger rail service will make the running of freight trains increasingly difficult. This fact indicates that improved passenger services probably ought to run on their own tracks as much as possible, even if they’re only going 79 or 110 mph. Yet the federal government’s investments have been too minor thus far to make that possible in most cases.

Supply disruptions kill the chemical industry and turns case

Bernard L **Weinstein and** Terry L **Clower**, February 9th, 19**98** (Ph.D., Center for Economic Development and Research, UNT, “The Impacts of the Union Pacific Service Disruptions on the Texas and National Economies: An Unfinished Story,” <http://digital.library.unt.edu/ark:/67531/metadc30377/m1/9/> >:)

The Gulf Coast's $105 billion ***chemical industry*** has probably been hit **harder than *any other*** manufacturing sector by the UP's service problems since virtually all **bulk chemicals are *shipped by rail***. Furthenhore. large chemical companies typically **own or lease their own rail cars**. Thus, diverting shipments to **trucks and barges** **imposes *signiﬁcant*** incremental ***costs to chemical companies***. A fall 1997 survey by the Chemical Manufacturers Association (CMA) found that 213 major production facilities along the Gulf Coast had been affected by ***disruptions* in service**, placing a large number of jobs at risk. (Employment at these facilities exceeds 95.450). According to 31 responding companies. the average monthly costs of service disruptions during the summer totaled $34.1 million and are now running at $62.3 million per month. About two-thirds of the total costs arise from lost sales or production while another 23 percent is attributed to higher freight and shipping costs. The remaining incremental costs are attributed to lost rail car utilization. additional inventory carrying costs. The higher cost of raw materials purchased from other producers, the cost of tracing rail cars, and other administrative expenses. The appended press clippings and RRC public testimony offer several examples of lost sales and production cuts related to UP delivery problems. For example. the Huntsman Corporation-— a $5 billion chemical producer based in Salt Lake City-- recently reported it had reduced output at some of its plants because the Union Paciﬁc had failed to bring in the necessary raw materials and deliver the ﬁnished products in time. According to Peter Huntsman, president and chief operating ofﬁoer of the company, UP's service is “still abysmal." (Wall St. Joumal. January 23. 1998). As another example. the Coastal Corporation of Houston estimates it is spending about $40,000 extra per month to ship asphalt by truck because of tank car delays on the Union Pacific rail system (see testimony of Marty Alday, Ft. Worth hearing, pp. 16-17). Dow Chemical, one of the Union Pacific's largest customers with about 50,000 rail cars a year. reports its service improved in November but worsened a week before Christmas. The company’s plants in Freeport, Texas and Plaquemine, Louisiana can't get enough empty cars and have shipment delays, forcing Dow to use comparatively expensive trucking finns as an alternative (Wall St. Joumal. January 6, 1998). At a minimum, the Gulf Coast chemical industry-— located principally in Texas-- has incurred costs of about $500 million in lost production and higher freight charges since the UP's service problems began in June. For the state of Texas, economic losses are probably in excess of $400 million with companies in the Houston Ship Channel area being the hardest hit. What's more. because **industrial chemicals are *essential raw materials*** for many other industries» including agriculture. automobiles. construction. food processing, pharmaceuticals. plastics and electronics-- production delays and higher shipping costs attending the UP service disruptions are no doubt being felt by other sectors of the state and national economies. Though these costs are indetenninate at this time, inevitably they will show up in higher prices to wholesalers. distributors and consumers over the next six to twelve months.

Chemical industry’s key to solve bioterror

**NAS**, posted 20**03** (National Academy of Sciences, “Beyond the Molecular Frontier: Challenges for Chemistry and Chemical Engineering,” <http://www.nap.edu/catalog.php?record_id=10633#toc>, pg. 175 >:)

How can chemists and chemical engineers respond? To **guard *against bio***logical ***attacks****,* it will be necessary to **develop *rapid*** and ***reliable methods* of detection**. As the events of 2001 demonstrated, it is ***not acceptable* to culture a sample and *wait*** days to learn if a particular biological agent is present; it **must be *identified prior*** to the onset of symptoms. And if the agent is found, we will need **new therapies** (antivirals, antibiotics) and reliable **methods for decontaminating** the site of attack. Protection of personnel will also require new vaccines and new approaches for delivering drugs and vaccines. The development of new drugs and vaccines will need to be carried out in full recognition that genetically modified pathogens could be used in an enemy attack. All of this will require concerted research by chemists and chemical engineers in collaboration with other scientists; these studies necessarily will be interdisciplinary. Chemical **Chemical warfare agents** are extremely ***toxic* and** very ***fast acting.*** Chemical scientists ***must develop better understanding*** of their mechanisms of action, and use this information to devise possible remedies. At present, the logical response to the chemical threat is prevention of exposure. Consequently, sensors and other ***fast analytical techniques* must be developed**.

Extinction

Kellman, ‘08 (Barry Kellman is the director of the International Weapons Control Center, “Bioviolence: A Growing Threat”, The Futurist, May-June 2008, http://www.wfs.org/March-April09/MJ2008\_Kellman.pdf)

A looming danger confronts the world—the **threat of *bioviolence.*** It is a danger that will only **grow in the future**, yet we are increasingly failing to confront it. With every passing day, committing a biocatastrophe becomes a bit easier, and this condition will perpetuate for as long as science progresses. Biological warfare is as old as conflict, of course, but in terms of the objectives of traditional warfare— gaining territory or resources, compelling the surrender of an opposing army—biological weapons weren’t very effective. If the objective is to inflict mass death and panic on a mixed population, however, emerging bioweapons offer remarkable potential. We would be irresponsible to presume that radical jihadists like al- Qaeda have ignored said potential. What’s New in Bioviolence? Bioviolence refers to the many ways to inflict disease as well as the many people who might choose to do so, whether heads of states, criminals, or fanatics. Fortunately, doing bioviolence is technically far more difficult than using conventional explosives. Natural pathogens like anthrax are difficult to weaponize. Smallpox remains unavailable (presumably); plague is readily treatable; Ebola kills too quickly to ignite a pandemic. But *emerging scientific disciplines*— notably genomics, nanotechnology, and other microsciences— could *alter* these *pathogens* for *use as weapons*. These scientific disciplines offer profound benefits for humanity, yet there is an ominous security challenge in minimizing the danger of their hostile application. For example, highly dangerous agents can be made resistant to vaccines or antibiotics. In Australia, scientists introduced a gene into mousepox (a cousin of smallpox) to reduce pest populations—it worked so well that it wiped out 100% of affected mice, even those that had immunity against the disease. Various bacterial agents, such as plague or tularemia (rabbit fever), could be altered to increase their lethality or to evade antibiotic treatment. Diseases once thought to be eradicated can now be resynthesized, en- abling them to spread in regions where there is no natural immunity. The polio virus has been synthesized from scratch; its creators called it an “animate chemical.” Soon, it **may be resynthesized** into a form that is **contagious *even among vaccinated populations***. Recreation of long-eradicated livestock diseases could ravage herds severely lacking in genetic diversity, damage food supplies, and cause devastating economic losses. Perhaps the ***greatest biothreat*** is the ***manipulation* of** the flu and other **highly contagious viruses,** such as Ebola. Today, scientists can **change parts of a virus’s** so ***genetic material*** that it can **perform specific functions**. The genomic sequence of the Spanish flu virus that killed upwards of 40 million people nearly a century ago has been widely published; any savvy scientist could reconstruct it. The avian flu is even more lethal, albeit not readily contagious via casual aerosol delivery. A malevolent bioscientist might augment its contagiousness. The Ebola virus might be manipulated so that it **kills more slowly, allowing it to be *spread farther*** before its debilitating effects altogether consume its carrier. A bit further off is genetic manipulation of the measles virus—one of the great killers in human history—***rendering useless the immunizations*** that most of us receive in early childhood. Soon, laboratory resynthesis of smallpox may be possible. Advanced drug delivery systems can be used to disseminate lethal agents to broad populations. Bioregulators— small organic compounds that modify body systems— could enhance targeted delivery technologies. Some experts are concerned that new weapons could be aimed at the immune, neurological, and neuroendocrine systems. Nanotechnology that lends itself to mechanisms for advanced disease detection and drug delivery—such as gold nanotubes that can administer drugs directly into a tumor—could also deliver weaponized agents deep into the body, substantially raising the weapon’s effectiveness. Altogether, techniques that were on the frontiers of science only a decade or two ago are rapidly mutating as progress in the biological sciences enables new ways to produce lethal catastrophe. Today, they are on the horizon. Within a decade, they will be pedestrian. According to the National Academies of Science, “The threat spectrum is broad and evolving— in some ways predictably, in other ways unexpectedly. In the future, genetic engineering and other technologies may lead to the development of pathogenic organisms with unique, unpredictable characteristics.” For as far into the future as we can possibly see, every passing day it becomes slightly easier to commit a violent catastrophe than it was the day before. Indeed, the rapid pace of advancing science helps explain why policies to prevent such a catastrophe are so complicated. Bioviolence Jihad? Some experts argue that **terrorists and fanatics are not interested in bioviolence** and that the danger might therefore be overblown. Since there have been no catastrophic bioviolence attacks, these experts argue, terrorists lack the intention to make bioweapons. Hopefully, they are correct. But an enormous amount of evidence suggests *they are wrong*. From the dawn of biology’s ability to isolate pathogens, people have pursued hostile applications of biological agents. It is perilous to ignore this extensive history by presuming that today’s villains are not fervent about weaponizing disease. Not a single state admits to having a bioweapons program, but U.S. intelligence officials assert that as many as 10 states might have active programs, including North Korea, Iran, and Syria. Moreover, many terrorist organizations have expressed interest in acquiring biological weapons. Whatever weight the taboo against inflicting disease might have for nation-states, it is obviously irrelevant to terrorists, criminals, and lunatics. Deterrence by threat of retaliation is essentially meaningless for groups with suicidal inclinations who are likely to intermingle with innocent civilians. Al-Qaeda and affiliated Islamic fundamentalist organizations have overtly proclaimed their intention to develop and use bioweapons. The 11th volume of al-Qaeda’s Encyclopedia of Jihad is devoted to chemical and biological weapons. Indeed, ***al- Qaeda has acknowledged*** that “**biological weapons are considered the** ***least complicated and easiest to manufacture of all weapons of mass destruction.***” Al-Qaeda is widely reported to have acquired legal pathogens via publicly available scientific sources. Before 9/11, al-Qaeda operatives reportedly purchased anthrax and plague from arms dealers in Kazakhstan, and the group has repeatedly urged followers to recruit microbiology and biotechnology experts. Following the Taliban’s fall, five al- Qaeda biological weapons labs in Afghanistan tested positive for anthrax. Documents calculating aerial dispersal methods of anthrax via balloon were discovered in Kabul, along with anthrax spore concentrate at a nearby vaccine laboratory. According to a lengthy fatwa commissioned by Osama bin Laden, jihadists are entitled to use weapons of mass destruction against the infidels, even if it means killing innocent women, children, and Muslims. No matter that these weapons cannot be specifically targeted. “[N]othing is a greater duty, after faith itself, than repelling an enemy attacker who sows corruption to religion and the world.” According to the fatwa, “No conditions limit this: one repels the enemy however one can.” The sentiment might be reprehen- internatravel plans and refuse to interact with each other for fear of unseen affliction. Public entertainment events are canceled; even going to a movie becomes too dangerous. Ultimately, bioviolence is about hiding our children as everyone becomes vulnerable to our most fundamental terror: the fear of disease. For people who seek to rattle the pillars of modern civilization and perhaps cause it to collapse, effective use of disease would set in motion political, economic, and health consequences so severe as to call into question the ability of existing governments to maintain their citizens’ security. In an attack’s wake, no one would know when it is over, and no government could credibly tell an anxious population where and when it is safe to resume normal life. While it is difficult to specify when this danger will strike, there should be no doubt that we are vulnerable to a rupture. Just as planes flying into the Twin Towers on September 11, 2001, instantly became a historical marker dividing strategic perspectives before from after, the day that disease is effectively used as an instrument of hate will profoundly change everything. If you want to stop modern civilization in its tracks, bioviolence is the way to go. The notion that no one will ever commit catastrophic bioviolence is simply untenable. How can we confront these growing dangers? First, we must appreciate the global nature of the problem. Perpetrators **from anywhere can get pathogens from *virtually everywhere.* Bioresearch labs** that once were concentrated in about two dozen developed states **are *proliferating,*** expanding the risk that lethal agents could be diverted and misused. The knowledge needed to weaponize pathogens is available on the Internet. An attack can be prepared through easy networks of transnational communication. Once a bioweapon is prepared, terrorists or other perpetrators from anywhere can slide across national boundaries and release disease anonymously. Once released, a contagious agent would **spread *without regard*** for boundaries, race, religion, or nationality. Public health responses would have to be internationally coordinated. New modes of international legal cooperation would immediately be needed to investigate the crime. Thus, bioviolence dangers shrink the planet into an interdependent neighborhood. It makes no sense for any particular country to try to insulate its homeland from these dangers. No missile defense system will protect us from bioviolence. Improved border security will not keep disease at bay. National efforts to enhance medical preparedness have virtues, but these defenses can be readily circumvented. To prevent bioviolence requires policies that focus on humanity as a species and that are implemented everywhere with centralized governance. Antibioviolence policies must be global. Yet, advancing anti-bioviolence policies is what the international community does worst. Bioviolence dangers are unnecessarily high because national and international antibioviolence strategies are gap- ridden, often incoherent, and not globally observed. As a result, we are all virtually naked in the face of unacceptable dangers. No other threat presents such a stark contrast between severity of harm and a failure of leadership to reduce risks. Most important, existing institutional arrangements are inadequate. In sharp contrast to most other global security challenges, there is no responsible international authority that defines relevant prohibitions and responsibilities, implements policies over time, or evaluates whether obligations are being fulfilled. With regard to global bioviolence prevention policies, there’s nobody in charge. No one is responsible; no one is accountable. The **absence of authority is *profoundly dangerous.***

# Econ

1.) *Budget-Slashing Turn* – HSR trades off with critical funding for other initiatives, making the economy net worse – independently, failure to incorporate it into a broader transportation strategy means it fails

Martin **Engel**, June 25th, 20**11** (writer, ‘High-Speed Train Talk,’ “A Summary Reality Check of why High-Speed Rail is a Bad Idea,” <http://high-speedtraintalk.blogspot.com/2011/06/summary-reality-check-of-why-high-speed.html> >:)

1. It's not about the train; it's about the money. The **funding** to pay for this project ***does not exist***.  There is a reason that a sound business plan does not yet exist. The intention is to obtain and spend as much funding as can be made available, regardless of the status of the rail project.  This project is a vehicle for the processing of federal and state dollars. 2. It costs too much**.**  The current price for California's HSR project is $43 billion if you ask the rail authority. It's $66 billion if you ask the CARRD group, and it's well over $100 billion if you ask the people whose opinions I read and respect. As they all say, "it doesn't pencil out."  3. It is unnecessary.  It will carry ***far fewer* people than promised**.  There are around 9 million annual trips north and south between LA and SF by flying, according to many sources.  The rail authority acknowledges that they intend to take away passengers from the air carriers.  Yet, they claim around 40 million annual riders.  That makes no sense. There is **no** pent up **demand** for north-south inter-city travel in California.  We don't need this train. 4. It's an enormous waste of money.  **The economy**, state-wide and nationally, **is a *disaster***. It will remain a protracted disaster for a very long time.  Mega-infrastructure projects such as this are lavish in their wastefulness. This is well-documented. The opportunities for waste, fraud and abuse are also documented and have begun to appear in government accounting audits. Corrupt practices (see China's HSR) are reliably predictable.  The words "scam", and "fraud" have been used to describe this project.  5.We can't afford it.  We are **budget slashing *into 'muscle'* in** California and **the Nation**.  The 'fat' has long since been removed. **We** simply **don't have** the ***resources or capacity* to construct** something that is so questionable. And the consequence is that we are **depriving** really ***critical* needs**, like ***education, medical needs, and benefits*** for the infirm, old and handicapped. Because of the persistence of this project in such dire times, we are losing our civility, humanity and morality.  We are no longer making ethical decisions. 6.It will cost us taxpayers forever.  This means that the **repayment** of the capital development debt that will need to be borrowed, public or private, to build it, plus interest, requires annual repayments of $2B TO $5B per year for the next 30 years.  And that means **more state taxes, or** ***less for schools***, public safety, etc. And, it will require operating subsidies so long as it is operational.  Even more cost to the taxpayers. 7. It serves only those who can afford it and don't need it.  Ticket prices for high-speed rail, as we keep saying, are the highest of all railroad tickets, world-wide.  Even in China.  High-speed rail is luxury, premium, first-class travel for the affluent only. The government has no business pouring the tax-dollars collected from those who can't afford to ride this train, to build it for those who can. . . .and subsidize each of those tickets as well. As they say in the UK, the poor shouldn't be building a luxury train for the rich.  8. It promises to be a panacea but can't and won't deliver on any of those promises.  It won't reduce traffic grid-lock in our population centers. It won't reduce air pollution, only re-locate it to coal-fired power plants. Its construction will create air pollution we will "pay for" for generations.  Due to high speeds and high power consumption, it will consume fossil fuels in massive quantities elsewhere. It will be a very modest job creator and its benefits to the economy are highly questionable. 9. There is no risk analysis and cost-benefit analysis.  The federal government cannot and will not pay the tens of billions it costs to build it. They are only putting up down-payments for the states to complete payment. That won't happen.  The project construction will start and then run out of funding, long before it can be serviceable.  If honest documentation were to be provided, the case for project termination would be the result. 10. It will be enormously harmful to the urban and rural environment.  The train must pass through the population centers north and south in California.  Tunneling, which would spare the environment, is off the table due to high costs.  Elevated viaduct structures are preferred by the rail authority due to their low costs and engineering design problem solving.  Business centers, residential areas, schools, parks, farmlands and industrial sites will all be adversely affected not only aesthetically, but economically with severe negative impact on property values. The construction impact on the environment will be devastating. 11. It is a political pork exercise, not a transportation solution to identified problems.  Clearly there are insufficient funds to actually build this train in California, or build out all the rail corridors identified in the US.  The available funds have been dispersed for political purposes; that is, earmarked pork.  There are no discernible underlying intentions to solve any transit problems, most of which exist in urban population regions, not inter-city. The intended California route detours through selected political districts. 12. It is culturally counter-indicated. While we continue to envy other countries that operate high-speed rail, we reject most everything else about those countries.  We don't want to be like them (they are too Socialist, their taxes too high, too centralized, etc.) but we do want their HSR.  That makes no sense.  The US has a totally different culture than the Asian or European countries.  Let's put it this way: Cinderella's tiny glass slippers don't fit our big feet. 13. The HSR promoters are "social engineers."  High-Speed Rail is being promoted as a "fix" to our problems.  That fix includes the promotion of higher density cities ('smart growth'), and obligatory rejection of automobiles.  There are too many oughts and shoulds here. "We should give up driving."  "We should all ride public mass transit"  "We should live in fewer square feet of housing."  "We should move out of the [suburbs] 'burbs' into the cities."  One could call this government-managed life-style change "Counter-Cultural." It goes against the American grain. 14. It's not invented here. "Buy America?"  Not really. We have no HSR construction or manufacturing capacity; we will need to import it all.  We will be obliged to buy everything off the shelves of other countries.  That's no way to stimulate our moribund job market or our economy. It's a flagrant example of the US being the credit card and Asia/Europe our shopping mall. Why are we not creating a new "Silicon Valley" for all future-generation transportation modalities? 15. At the National level, high-speed rail is an iconic, symbolic political gesture without substance.  There has been ***no national transportation strategy*** **conceived of which high-speed rail may** or may not **be a part.** HSR is part of the Obama Administration's marketing vision of "winning the future."  HSR is photogenic and glamorous. It's an expression of national lavishness and spending power.  What it isn't is a part of a **master plan for transportation** for the US for the next 100 years. 16. A **serious** prioritized list of **problem-issues** in which we should invest, ***does not include high-speed rail****.*  Energy; the power grid; water; education; medical/health care; urban and regional public mass transit; the nation's decaying infrastructure; R&D; restoring our manufacturing capacity; preserving our surviving wilderness before it is lost forever.

3.) *Property values turn* – HSR kills the economy by destroying urban and rural environments – specifically, this devastates California

Martin **Engel**, June 25th, 20**11** (writer, ‘High-Speed Train Talk,’ “A Summary Reality Check of why High-Speed Rail is a Bad Idea,” <http://high-speedtraintalk.blogspot.com/2011/06/summary-reality-check-of-why-high-speed.html> >:)

10.It [High-speed rail] will be ***enormously* harm**ful to the ***urban and rural environment****.*  The train **must pass through** the **population centers** north and south **in *California.*  Tunneling**, which would spare the environment, **is *off the table*** due to high costs.  *Elevated viaduct structures* **are preferred** by the rail authority due to their low costs and engineering design problem solving.  ***Business centers, residential areas, schools, parks, farmlands and industrial sites will all be adversely affected*** not only aesthetically, but economically with ***severe* negative impact** on property values. The construction **impact** on the environment **will be *devastating***[***to California.***]

5.) *Empirics disprove solvency* – HSR will go at a loss – only two routes have made a profit

Noel **Braymer**, May 9th, 20**11** (Railway Passenger Association of California and Nevada, “Where are all those bankrupt High Speed Rail Countries?” <http://www.railpac.org/2011/05/09/where-are-all-those-bankrupt-high-speed-rail-countries/> >:)

There is nothing new about participants in a debate being selective in the “facts” they use to make their points. Much of the hysteria about High Speed Rail is based on the claim that around the world there are ***only 2* High Speed Rail routes** that have made ***any* money.** The basis for this can be traced to a study by the Cato Institute (a libertarian think tank largely funded by Oil interests). The original Tokyo-Osaka Shinkansan line and the Paris-Lyon TGV line are the only 2 so far that have paid off all of their capital costs. That is because it ***takes time* to pay off an investment**, these are the oldest HSR lines, and most High Speed Rail services are new. If we used the criteria that a business need pay off all capital costs before being considered “profitable” then we would have few profitable businesses. Lenders are more than happy to lend money as long as an enterprise has the revenue to service the debt. All business depends on credit to function. So what is the real story? The new Spanish High Speed Rail service (RENFE AVE) despite the economic problems in that county (20% unemployment) posted a PROFIT for 2010. The new Russian High Speed Rail service between Moscow and St. Petersburg is the only profitable passenger rail service in Russia, averaging over 80% occupancy and is expected to pay off all capital cost in 16 years. In Britain all of the rail passenger services are operated by private companies who only stay in business if they make a profit. High Speed in Britain is “only 140 miles per hour tops” in most cases, but these operators are competing to run trains and make money. In Italy there is a privately owned railroad that is building a national high speed rail network which is starting service this year. It plans to make money competing with the Italian National Railroad. Both the French National Railroad (SNCF) and German National Railroad (DB) make money. Their most profitable services are their high speed rail passenger services. In fact both railroads are competing against each other. DB is pushing very hard to expand their High Speed Rail service to Paris and London from Germany. In Japan the old National JR railroad was split up years ago into 6 regional privately owned railroads each with their segments of High Speed Rail. All six companies are profitable and making money with High Speed Rail passenger service. Is any country losing money on High Speed Rail? There is Taiwan. They have a new beautiful national system that is very fast. It gets high ridership and there has been a noticeable decline in local air travel. But it is losing money at least for now. The problem for Taiwan is the politicians did go a bit overboard in construction particularly for some very beautiful new stations. Also there are legal limits to how much the trains can charge passengers. The losses are shrinking but **it will be some time *if ever*** **before the Taiwan service makes an** ***operating profit***. But the point is despite the hysteria that our nation will become destitute subsidizing High Speed Rail service, this hasn’t been the experience of other counties. China has the largest High Speed Rail Program in the world. The former chief of China’s railroads was a con man who sought bragging rights by running the world’s fastest trains. He was recently fired, accused of fraud and accepting bribes while embezzling funds to pay for his many girlfriends. China is now lowering some of the speeds of their trains to save money, and lowering fares which many passengers felt were too high. Construction will go on for more High Speed Rail and even in Communist China the railroad is expected to at least break even.

7.) *Downswings don’t cause war* – 93 empirical examples

Miller 2K

(Morris Miller, economist, adjunct professor in the University of Ottawa’s Faculty of Administration, consultant on international development issues, former Executive Director and Senior Economist at the World Bank, Winter 2000, Interdisciplinary Science Reviews, Vol. 25, Iss. 4, “Poverty as a cause of wars?” p. Proquest)

The question may be reformulated. Do wars spring from a popular reaction to a sudden economic crisis that exacerbates poverty and growing disparities in wealth and incomes? Perhaps one could argue, as some scholars do, that it is some dramatic event or sequence of such events leading to the exacerbation of poverty that, in turn, leads to this deplorable denouement. This exogenous factor might act as a catalyst for a violent reaction on the part of the people or on the part of the political leadership who would then possibly be tempted to seek a diversion by finding or, if need be, fabricating an enemy and setting in train the process leading to war. According to a study undertaken by Minxin Pei and Ariel Adesnik of the Carnegie Endowment for International Peace, there would **not appear to be** any **merit in this** hypothesis. After studying *ninety-three episodes* of economic crisis in twenty-two countries in Latin America and Asia in the years since the Second World War they concluded that:19 Much of the conventional wisdom about the political impact of economic crises may be wrong ... The severity of **economic crisis** - as measured in terms of inflation and negative growth - bore *no relationship* to the *collapse of regimes* ... (or, in democratic states, rarely) to an *outbreak of violence* ... In the cases of dictatorships and semidemocracies, the ruling elites responded to crises by increasing repression (thereby using one form of violence to abort another).

8.) *Excursions turn* – HSR destroys the tourism industry – reduces overnight stays

Daniel **Albalate and** Germa **Bel**, March 20**10** (University of Barcelona, “High Speed Rail: Lessons for Policy Makers from Experiences Abroad,” <http://danbyles.co.uk/conservatives/files/dan_byles/4.%20High%20Speed%20Rail%20Study%20-%20Barcelona%20Research%20Institute%20of%20Applied%20Economics.pdf> >:)

It is consistently reported that **HSR does not generate *any new activities*** nor does it attract new firms and investment, but rather it helps to consolidate and promote on-going processes as well as to facilitate intra-organizational journeys for those firms and institutions for whom mobility is essential. In fact, for regions and cities whose economic conditions compare unfavorably with those of their neighbors, a connection to the HST line may even result in economic activities being drained away and an overall negative impact (Givoni, 2006; Van den Berg and Pol 1998; Thompson 1995). Medium size cities may well be the ones to suffer most from the economic attraction of the more dynamic, bigger cities. Indeed, Haynes (1997) points out that growth is sometimes at the expense of other centers of concentration. Several reports describe the centralization of activities in big nodes, especially in the services sector. It is perhaps worth pointing out that only those cities with a significant weight of services in their economic structure appear to benefit from HSTs. In other words agricultural and industrial activities are indifferent to HST stops. Evidence of this lack of economic impact is the little attention given to a HST railway stations by firms in their location decisions, even those of service companies. Besides business journeys, ***tourism*** is the first sector to **show[s] an *immediate effect*** following the inauguration of an HST line. Indeed, the number of tourists in cities linked to the network tends to increase thanks to this alternative mode of transport. However, the ***number of overnight stays falls* due to easier same day travel**, which also has a **marked impact** on business trips. Therefore, HSR impacts on the tourist [tourism] industry by promoting the number of leisure travelers to connected cities but at the same time it reduces [**reducing**] the **number of nights** spent in hotels. Finally, the reports reviewed also show that **HSTs had** only ***marginal* impacts** **on population and housing growth.**

**AND – tourism’s key to the economy**

White House **Ops**, January 19th, 20**12** (White House Office of the Press Secretary, “We Can’t Wait: President Obama Takes Actions to Increase Travel and Tourism in the United States,” <http://www.whitehouse.gov/the-press-office/2012/01/19/we-can-t-wait-president-obama-takes-actions-increase-travel-and-tourism-> >:)

This morning, President Obama will sign an Executive Order and announce new initiatives to significantly increase travel and tourism in the United States. The U.S. tourism and travel industry is a ***substantial component* of U.S. GDP and employment,** representing 2.7% of GDP and 7.5 million jobs in 2010 – with international travel to the United States supporting 1.2 million jobs alone. The travel and tourism industry projects that ***more than 1 million*** American ***jobs* could be created** over the next decade **if the U.S. increased its share** of the international travel market. Today’s announcement offers important steps to bolster job creation through a range of steps to better promote the United States as a tourism destination and improve secure visa processing. This is the most recent of a series of executive actions the President has announced to put Americans back to work and strengthen the U.S. economy. “Every year, tens of millions of tourists from all over the world come and visit America. And the more folks who visit America, the **more Americans** we ***get back to work***. We need to help **businesses *all across the country* grow** and create jobs; **compete and win**. That’s how we’re going to rebuild an economy where hard work pays off, where responsibility is rewarded, and where anyone can make it if they try,” said President Obama. According to the U.S. Department of Commerce, international travel resulted in **$134 billion in** U.S. **exports** in 2010 and is **the nation’s** ***largest service export industry***, with 7% of total exports and 24% of service exports. The Bureau of Economic Analysis estimates that every additional 65 international visitors to the United States can generate enough exports to support an additional travel and tourism-related job. According to the travel industry and Bureau of Economic Analysis, international travel is particularly important as overseas or “long-haul” travelers spend on average $4,000 on each visit. Today’s announcement calls for a national strategy to make the United States the world’s top travel and tourism destination, as part of a comprehensive effort to spur job creation. The number of **travelers from emerging economies** with growing middle classes – such as China, Brazil, and India – **is projected to grow** by 135%, 274%, and 50% respectively by 2016 when compared to 2010.  Nationals from these three countries contributed approximately $15 billion dollars and thousands of jobs to the U.S. economy in 2010.  In addition, Chinese and Brazilian tourists currently spend more than $6,000 and $5,000 respectively each, per trip, according to the Department of Commerce. The Department of State has made tremendous progress in processing non-immigrant visas from these key markets, allowing them to issue more than 7.5 million visas in the last fiscal year, a 17% increase from the previous fiscal year. In the 2011 fiscal year, consular officers adjudicated more than a million visa applications in China and more than 800,000 in Brazil, representing 34 % growth in China and 42% growth in Brazil. Improving visa processing capacity for China and Brazil is particularly important because of this growth.

# Warming

1.) *HSR can’t solve* – it’s a band aid solution, and its effects on oil dependence are minimal

Paul Druce, writer of the blog ‘Reason and Rail,’ “Bad Arguments for high-speed rail – oil consumption,” June 29th, 2011, http://reasonrail.blogspot.com/2011/06/bad-arguments-for-high-speed-rail-oil.html

Now, for the actual matter at hand, that of high speed rail's role in reducing our dependence on oil. The California High Speed Rail Authority estimates that, by 2030, the high speed rail system will be sav[e]ing 12.7 million barrels of oil per year. This, however, represents only [***sixteen hours worth* of US consumption**](http://www.eia.gov/energyexplained/index.cfm?page=oil_home#tab2)**in 2009 and *only***[***1.9% of California's annual consumption***](http://www.eia.gov/state/state-energy-profiles-data.cfm?sid=CA#Consumption) (one week's worth). Clearly it would have **minimal, *if any*, *effect on oil prices or*** oil ***dependence.*** Ultimately, the problem of **oil consumption is going to be *best handled through regulations and*** industrial ***subsidies*** (such as paying Ford to bring over the 65mpg Fiesta ECOnetic) which increase the average fleet fuel efficiency from its currently pitiful 22.6 miles per gallon to a rather higher figure. Saving fuel via **HSR is** helpful, but it is nothing more than ***a bandaid compared to what*** really ***must be done*** and it is a far from economical means of so doing.

3.) *No warming* – newest data, sun and oceans prove

Hudson, 9

Paul Hudson, Climate Correspondent, BBC News, 10/9, “What happened to global warming?”, http://news.bbc.co.uk/2/hi/science/nature/8299079.stm

This headline may come as a bit of a surprise, so too might that fact that the warmest year recorded globally was not in 2008 or 2007, but in 1998. / But it is true. For the last 11 years we have not observed any increase in global temperatures. / And our climate models did not forecast it, even though man-made carbon dioxide, the gas thought to be responsible for warming our planet, has continued to rise. / So what on Earth is going on? / Climate change sceptics, who passionately and consistently argue that man's influence on our climate is overstated, say they saw it coming. / They argue that there are natural cycles, over which we have no control, that dictate how warm the planet is. But what is the evidence for this? / During the last few decades of the 20th Century, our planet did warm quickly. / Sceptics argue that the warming we observed was down to the energy from the Sun increasing. After all 98% of the Earth's warmth comes from the Sun. / But research conducted two years ago, and published by the Royal Society, seemed to rule out solar influences. / The scientists' main approach was simple: to look at solar output and cosmic ray intensity over the last 30-40 years, and compare those trends with the graph for global average surface temperature. / And the results were clear. "Warming in the last 20 to 40 years can't have been caused by solar activity," said Dr Piers Forster from Leeds University, a leading contributor to this year's Intergovernmental Panel on Climate Change (IPCC). / But one solar scientist Piers Corbyn from Weatheraction, a company specialising in long range weather forecasting, disagrees. / He claims that solar charged particles impact us far more than is currently accepted, so much so he says that they are almost entirely responsible for what happens to global temperatures. / He is so excited by what he has discovered that he plans to tell the international scientific community at a conference in London at the end of the month. / If proved correct, this could revolutionise the whole subject. / Ocean cycles / What is really interesting at the moment is what is happening to our oceans. They are the Earth's great heat stores. / According to research conducted by Professor Don Easterbrook from Western Washington University last November, the oceans and global temperatures are correlated. / The oceans, he says, have a cycle in which they warm and cool cyclically. The most important one is the Pacific decadal oscillation (PDO). / For much of the 1980s and 1990s, it was in a positive cycle, that means warmer than average. And observations have revealed that global temperatures were warm too. / But in the last few years it has been losing its warmth and has recently started to cool down. / These cycles in the past have lasted for nearly 30 years. / So could global temperatures follow? The global cooling from 1945 to 1977 coincided with one of these cold Pacific cycles. / Professor Easterbrook says: "The PDO cool mode has replaced the warm mode in the Pacific Ocean, virtually assuring us of about 30 years of global cooling." / So what does it all mean? Climate change sceptics argue that this is evidence that they have been right all along. / They say there are so many other natural causes for warming and cooling, that even if man is warming the planet, it is a small part compared with nature.

5.) *No impact* – oceans solve runaway warming

**Junk Science, ‘08**  
(“The curious incident of the added heat at the surface.” http://junkscience.com/Greenhouse/forcing.html)

Additionally, this form introduces another layer of complexity, that of oceanic absorption. Bear in mind that every 10 meters of water column is equivalent to one entire atmosphere (10 cubic meters of water has a mass of 10,000 Kg), meaning that the oceans are an *enormous* heat sink. There is a theory that we can not find atmospheric warming because the oceans are absorbing it and 300 atmosphere's worth of oceans make the temperature change far too small to measure. Now, we have no specific problem with the possibility that Earth's warmth is distributed through the oceans as well as the atmosphere. Our response, however, remains the same. If additional or "excess" warmth is being spread over so many more atmospheres, at least atmosphere's worth of oceans, then we are looking at as little as one-third of one percent of estimated warming to achieve equilibrium temperature with enhanced greenhouse forcing. This would make the IPCC's touted 1.5-6 °C atmospheric warming an immeasurably small 0.005-0.02 °C for a doubling of pre-Industrial atmospheric carbon dioxide -- not a particularly worrisome prospect. So, recent data acquisition fails to show warming in the top 750 meters of the oceans (equivalent to 75 atmospheres) but there is a suggestion of warming in the deep ocean (below 1,000 meters, although historic data is sparse, to say the least -- the warming of so much of the ocean would be so small from enhanced greenhouse that the figures are of little relevance here). We are providing a field for you to select ocean depth to disperse additional forcing so you can see the effect ocean absorption has. As an exercise try maxing out the atmospheric carbon dioxide at 1200 ppmv (four times pre-IR levels) and share the additional Joules through the full allowable 3,000 meters of ocean depth and see that it would take more than 100 years to raise the temperature of the system just 1 °C. If the assertions that heat is being added to the system at the claimed rate but we can not detect it because it is being "hidden" by dispersal in the oceans then again we are unconcerned -- distributing the additional heat through so many more atmospheres' worth of heat sink makes mean warming trivial.

6.) *Woodlands turn* – High-speed rails destroy ancient woodlands

Woodland Trust, some environmental group idk lol, “Woodland Trust Response to the High-Speed Rail,” July 2011, http://www.woodlandtrust.org.uk/en/campaigning/woodwatch/case-studies/high-speed-two/Documents/consultation-response.pdf

The Woodland Trust is concerned that the High Speed Rail project being proposed by the Government fails to meet appropriate environmental standards as the route [and] will lead to the loss and damage of 93 ancient woodlands. These sites represent an irreplaceable habitat that public policy aims to protect through Planning Policy Statement 9: Biodiversity and Geological Conservation • Many of the environmental impacts of HSR have not been considered in the Government's consultation document and there is a distinct lack of information on the alternative routes. This is inconsistent with the emphasis the Government has placed since coming to power on transparency and open government. • During the public debate over the future of the Public Forest Estate the Government moved to address concerns about the loss of ancient woodland by promis[ed]ing to ensure that [ancient woodland] the habitat would continue to be protected in the National Planning Policy Framework (NPPF) being drafted by the Department for Communities and Local Government. In its current format HSR undermines this commitment.

Ancient woodlands are key to biodiversity

Woodland Trust, some environmental group idk lol, “Woodland Trust Response to the High-Speed Rail,” July 2011, http://www.woodlandtrust.org.uk/en/campaigning/woodwatch/case-studies/high-speed-two/Documents/consultation-response.pdf

The term “Ancient Woodland” describes land which has been continuously wooded since 1600. The unique undisturbed soils and ecosystems found in these sites form the UK’s richest habitat for wildlife and are irreplaceable. Ancient woodland is home to more species of conservation concern than any other habitat, providing an undisturbed habitat for wildlife and a haven for rare species that are slow to react to change. Once habitat changes are initiated, these species find it difficult to adapt to the conditions, and are not mobile enough to move to other locations to survive. Ancient Woodland is one of the few habitats where it is recognised (for example in Natural England’s guidance on ancient woodland) that no techniques exist to recreate the habitat. Mitigation is impossible. The mitigation of ancient woodland loss is of such high risk and unpredictability that recent work by Defra on biodiversity offsets has indicated that a replacement ration of minimum 24:1, or a bespoke calculation, is required to even attempt to recreate the value of the habitat lost. This habitat replacement also has to be in a suitable location for it to have any significance. The Woodland Trust advocates that a minimum of 30:1 replacement ration is required due to the complexities of ancient woodland as a habitat. For example for every hectare of ancient woodland lost there should be 30 hectares planted. Avoidance is therefore key to protecting this irreplaceable resource. Despite the irreplaceable nature of this habitat being widely known and the recognised presence of ancient woods along the chosen HS2 route, there is no evidence of this being take into account as a factor in deciding the final route.

Extinction

Bruce E. Tonn, Urban Planning Prof @ Tennessee, November 2007, Futures v. 39, no. 9, “Futures Sustainability”, ln

The first principle is the most important because earth-life is needed to support earth-life. Ecosystems are composed of countless species that are mutually dependent upon each other for nutrients directly as food or as by-products of earth-life (e.g., as carbon dioxide and oxygen). If the biodiversity of an ecosystem is substantially compromised, then the entire system could collapse due to destructive negative nutrient cycle feedback effects. If enough ecosystems collapse worldwide, then the cascading impact on global nutrient cycles could lead to catastrophic species extinction. Thus, to ensure the survival of earth-life into the distant future the earth's biodiversity must be protected.

# 2NC

# ISI

CP’s key to ensure adequate ridership – true HSR kills ridership by increasing ticket fares and only increasing top speeds -- empirics go our way

Road **Frank**, June 29th, 20**11** (writer, Orphan Road, “Medium Speed Rail,” <http://www.orphanroad.com/blog/2011/06/medium-speed-rail> >:)

Having recently made the case for blowing up the long-range plan and **start**ing **over** again on the Amtrak Cascades, let me offer some time to a more incrementalist vision. In the current Washington Monthly, Phillip **Longman** [**cites *Cascades*** as a **winning example**](http://www.washingtonmonthly.com/magazine/julyaugust_2011/features/the_case_for_notquite_sohighsp030492.php) of ***“not-quite-so-high-speed rail.”***This principle is also illustrated by Amtrak’s highly successful “Cascades” service on the 187-mile line between Portland and Seattle. The Spanish-designed Talgo “tilt” train sets look futuristic, and with their on-board bistros and comfy chairs they are a joy to ride. But because they run on conventional track through mountainous country shared by freight trains, their current top speed is only 79 mph, and their average speed is just 53. Still, that’s enough to make taking the train faster than driving, and ridership has swelled to more than 700,000 passengers a year. Using federal stimulus dollars plus state spending, work is currently under way to boost top train speeds to 110-125 mph, simply by adding better signaling and more sidings to let freight trains get out of the way. This incremental investment will also boost reliability and allow for increased frequency, which will further bump up ridership. But numerous studies show there is ***no point* in making trains go *faster than 125 mph*** on a segment this short because of the great **cost** involved and the ***limited gains* to total trip times.** Moreover, if a new bullet train line were built between Portland and Seattle, the ***tremendous* cost of its construction would require fares *too high for all but well-heeled business travelers*** to afford. Fair point.  Longman also argues persuasively that, in the medium term, **frequency and reliability are *much more important* to increasing ridership** than pure speed.  I do wonder, though, how much better frequency and reliability can get so long as the freight companies own the tracks. =

The plan and CP are functionally distinct – here’s evidence from the author our 1NC solvency advocate cites directly comparing high-speed rail with the CP

Phillip Longman (senior fellow at the Washington Monthly and the New America foundation, “The Case for Not-Quite-So-High-Speed Rail,” July/August 2011, http://www.washingtonmonthly.com/magazine/julyaugust\_2011/features/the\_case\_for\_notquite\_sohighsp030492.php?page=1 >:)

Because of its more **circuitous route** and **local stops**, and because passenger trains on the Rhine Valley line also have to share tracks with many freight trains, these **trains are *slower than those on the*** new ***high-speed line***. Yet they still max out at about 100 mph, which means that they only take a bit more than an hour longer to go from Cologne to Frankfurt even as they serve more population centers in between. The line is vibrant, with local and express passenger trains passing through any given station every fifteen to twenty minutes. By European or Asian standards**, this service *doesn’t qualify as high-speed rail***, but it is **faster on average** than most American railways, and frequent enough to provide[s] **vital connectivity** throughout the Rhine Valley.

# FTO

Freight rail reduces emissions – comparably better than trucks

Hamberger 8 (Ed, chief executive of the American Association of Railroads, “Railroad lobby touts freight rail as best option for cleaner, more affordable goods movement,”

<http://www.eenews.net/tv/transcript/826> ;)

It would be one of our target audience and what we're trying to do is raise the level of consciousness about the importance of freight in general, but freight by rail specifically. We can get 436 miles to the gallon. That is to say, we move, on average, 1 ton of freight 436 miles on 1 gallon of fuel. Because of that, we emit fewer CO2 emissions. We emit fewer particulates, fewer NOX emissions. And so we think, at a time when people are trying to figure out how to deal with $140 barrel of oil, how to fight global warming, they should be aware of the option of moving freight by rail.

Freight solves trucks of the road and leads to growth

Booen 11 (Bret, writer for Supply Change Digital, “How Freight Rail is Getting the Economy Back on Track,” 4/18/12 <http://www.teamidslogistics.com/news/how-freight-rail-is-getting-the-us-economy-back-on-track> ;)

There are 565 freight railroads in the United States. Those 565 railroads make up a nearly 140,000-mile long rail network that is used to transport imported goods that come via sea freight and air freight from far away destinations. Along with being a national heritage, the railroad is the most efficient and cost-effective way of moving goods into inner-America. Just don’t tell that to UPS and FedEx, who will try to convince you otherwise.¶ The freight rail industry supports over 180,000 US jobs, and by all accounts that number will rise in the coming years as the government and private investors pour millions of dollars into infrastructure improvements and make freight rail capital investments. It’s no surprise that Pennsylvania, an important corridor situated between Chicago and New York City has the most railroads with a whopping 58 tracks. Meanwhile, Hawaii has the least number of tracks with a whopping zero. If we’re going strictly by freight rail miles, then the state where everything is bigger is No. 1 as Texas sports a network of 10,743 freight rail miles. Texas hosts three signature railway companies namely Union Pacific, Kansas City Southern and Burlington Northern/Santa Fe.¶ I don’t mean to insult your intelligence, but freight rail is an important economic driver because freight rate volumes often tell us exactly where the state of our economy is. Take 2008, for example, when the freight rail industry nearing all-time highs. Everyone was having a great time sending their stuff across America, but then it all came crashing down in 2009.¶ I digress. A single train can carry the load of 280 or more trucks. In other words, a freight train essentially takes more than 1,100 cars off of American highways. The last thing anyone wants is more congestion on American highways. The Association of American Railroads (AAR) reports that congestion on highways costs $87 billion in wasted travel time and fuel each year. So not only is freight rail efficient and cost-effective, but it helps mitigate congestion from our nation’s roads, which was one of the more salient points Obama talked about in his State of the Union Address earlier this year.¶ AAR President and CEO Edward R. Hamberger said, “The President has issued a clear call to American businesses, urging them to get off the sidelines and get back in the game by investing capital and hiring.”¶ While President Obama and other leaders have called upon private companies to increase capital spending and rev up hiring, the nation’s freight railroads have been spending record sums of private capital on the rail network and bringing people back to work. Railroad hiring at the end of 2010 was up 5.2 percent over the year before, according to the report, and railroads are positioned to hire more workers in the coming years.¶ Hamberger says, “Freight railroads have been in the game for the past 30 years, investing more than $480 billion to build and maintain America’s freight rail network with private capital, and supporting jobs all across the country. Freight railroads have a great track record and are ready to continue investing in the national rail network so U.S. taxpayers don’t have to. But, we must have a regulatory framework that supports, and does not hinder, private investment.”¶ The AAR recently announced the nation’s freight railroads in 2011 are planning to spend a record $12 billion on capital expenditures, after setting a record with $10.7 billion in capital spending in 2010. According to the Great Expectations 2011, Railroads and Continued U.S. Economic Recovery report, these investments are potentially threatened by regulatory and legislative policies being considered in Washington, D.C.¶ “Even during the worst recession in a generation, freight railroads have been plowing record amounts of private capital back into the rail network each and every year, achieving one of the highest capital investment rates of any U.S. industry,” said Hamberger. “A regulatory framework that provides certainty will foster continued economic recovery and job creation.”

Congestion hurts the economy

Staley (senior research fellow at Reason Foundation and associate director of the DeVoe L. Moore Center at Florida State University in Tallahassee where he teaches college students) 1-5-12

(Samuel, “Traffic Congestion and the Economic Decline of Cities,” <http://reason.org/news/show/traffic-congestion-and-the-economic> ;)

As the economic recovery continues to lag, one of the nation's job killers, traffic congestion, is re-emerging. After a brief respite during [the recession that saw travel times improve](http://tti.tamu.edu/documents/mobility-report-2011.pdf), greater travel delay costs us [nearly $4 billion more now than in 2008](http://tti.tamu.edu/documents/mobility-report-2011-wappx.pdf) as more and more people find themselves once again "stuck" in traffic as the economy improves. In a [recent Reason-Rupe poll](http://reason.org/news/show/reason-rupe-transportation-infrastr), 49 percent of Americans said traffic congestion has gotten worse in the past five years. And 54 percent said they see traffic congestion getting even worse five years from now. Despite the public's concerns, a small but growing group of urban planners is vocalizing support for traffic congestion. They say it's a symptom of economic success. In fact, cities are now voluntarily opting to slow themselves down by embracing congestion. Salon.com writer [Will Doig notes](http://www.salon.com/2011/12/17/in_the_future_urban_bikers_go_faster_than_cars/) that cities are doing this by encouraging non-automobile transportation modes such as bicycling, slowing cars with "traffic calming" devices, adopting "slow zones," encouraging "walkability" and replacing expressways with "lower-speed boulevards." And Rod King, the organizer of an advocacy group aiming to reduce London, England's speed limit to 20 miles per hour, says the "peripheral advantages" to slower cities include increased bicycling as roads become safer, less government spending since cities don't need to install speed bumps, and better air quality as less fuel is burned speeding between traffic lights. Add in lower fatality rates as cars travel more slowly and, King says, "putting on the brakes starts to look like a no-brainer." The slow cities King and Doig are advocating are missing a critical element -- the economic repercussions of slowing people down. The time spent stuck in traffic or on a slower commute or journey is time not spent shopping, eating at home with family, playing or working. Longer commutes limit the size, scope and depth of labor markets. Firms have less access to workers because workers generally don't look for jobs far from where they live. And it's well established among urban economists that workers will accept lower paying jobs in order to avoid too long of a commute. This isn't just theory. Real-world data supports the negative economic impacts of rising traffic congestion. A study by economist Kent Hymel appeared in the *Journal of Urban Economics* which [linked traffic congestion to slower employment growth](http://www.economics.uci.edu/files/economics/docs/micro/f08/hymel.pdf). Hymel examined traffic congestion and employment growth in 85 metropolitan areas between 1990 and 2003 and found evidence of rising regional traffic congestion choking employment growth. For example, a 50 percent reduction in congestion could boost employment by 10 to 30 percent in America's top 10 most congested cities. For Los Angeles, the most congested city in the U.S. in several measures according to [the Texas Transportation Institute](http://tti.tamu.edu/documents/mobility-report-2011-wappx.pdf), a 10 percent increase in regional congestion reduced employment growth by 4 percent, according to Hymel's estimates. In short, Hymel writes, "congestion has a broad negative impact on economic growth." In *Gridlock and Growth*, a 2009 study published by Reason Foundation and University of North Carolina at Charlotte, Professor David Hartgen found shortening travel times to include a larger labor market would add billions of dollars to regional output and income in cities including Seattle, San Francisco, Salt Lake City, Detroit, Dallas, Denver, and Charlotte. A 10 percent reduction in travel times could boost production of goods and services by 1 percent, leading to tens of billions of dollars in higher income and output for those cities, Hartgen found. So, does this mean the congestion enthusiasts are simply wrong? On a regional level, yes. Traffic congestion's localized impacts, however, may not be quite as negative for certain types of neighborhoods. The key is understanding the difference between regional and localized congestion. And different strategies for disparate mobility problems may be necessary. John Norquist, CEO of the Congress for New Urbanism, recommends that traffic analysts distinguish between "through traffic" and traffic intended for local destinations, citing a case in Milwaukee where city officials preserved several city blocks of retail business instead of widening the road to improve traffic circulation. On the block level, congestion may be a sign of economic success, but the congestion itself still inhibits mobility and circulation. Congestion still has a negative impact. The question is whether congestion can be reduced, or even eliminated, while also preserving the features of the block that make it economically successful. On the block level, eliminating congestion may not be practical or feasible. But what is good for the block is not necessarily good for the region. Most transportation policymakers focus on regional congestion, not the relatively isolated nodes or places that many planners envision when they consider the supposed benefits of low circulation. Congestion relief is typically focused on improving traffic flows along miles of congested roadway and intersections such as the Kennedy Expressway and "Spaghetti Bowl" in Chicago, the I-10 and I-405 in Los Angeles, the LBJ (I-635) expressway in Dallas, or the I-395 beltway around Washington, D.C. These stretches of roadway contribute to regional congestion and capture the lion's share of the negative impact for cities. In these cases, the research confirms that traffic congestion is an economic plague on America's urban areas and regions. Speeding up traffic is a key to sustainable regional economic growth. Policymakers shouldn't lose sight of this when creating jobs and keeping America's cities productive.

# LOST Bad

Any risk of methane release controls your impact calculus – it’s the most probable and only empirical extinction event, and accesses an invisible threshold

**Dorritie ‘7** (Dan Dorritie, paleontologist, studies mass extinction events, M.A. Geology, University of California—Davis, “Preface,” Killer in our Midst, 2007, http://www.killerinourmidst.com/)

Deep beneath the surface of the sea, buried in the oxygen-depleted muds that have accumulated over the ages on the underwater margins of the continents, lies a vast store of natural gas that probably well exceeds, in its carbon equivalence, the entire supply of all other oil, gas, and coal on the planet. Most of this immense store of natural gas, largely comprised of methane, lies trapped in icy cages called hydrates. Below these hydrates is a huge quantity of methane as free gas bubbles, blocked from release by the hydrate, and temperature and pressure conditions above. Still more methane, as hydrate, is found in the permanently frozen (permafrost) regions that surround the poles. Methane is a much more powerful greenhouse gas than carbon dioxide, the gas which is currently warming our globe, even though methane remains in the atmosphere for a much shorter time. If released abruptly, seafloor methane has the potential to deliver a stunning jolt of heat to the planet's already increasing temperatures. Even if released more gradually, seafloor methane will inevitably compound the problem of global warming. But abruptly or gradually, as we warm the planet by our dumping of carbon dioixde into the atmosphere, the seafloor will also warm, and its methane will inevitably be released. This book is about the release of that methane, and, in particular, about the possibility of methane catastrophe.Methane catastrophes have occurred several times in Earth's history, and when they have occurred, they have sometimes caused abruptchanges in the history of life, and at least one significant extinction. That extinction, at the end of the Permian Period 250 million years ago,is the greatest in the history of life. More than 90% of the then-existing species perished, and the course of life on Earth was altered forever. If a methane catastrophe were to happen in the near future, it is likely that not only would a considerable percentage of existing plants and animals be killed off, but a large percentage of the human population as well, as a result of the climate change and significantly more hostile environmental conditions. Yet we may well be heading toward such a catastrophe, produced by our warming of the planet. Just how rapidly seafloor methane will be released depends on numerous factors that are quite difficult to assess. It is possible that seafloor methane will be released so slowly that it will only have a relatively minor warming effect on Earth's climate. On the other hand, because the coming methane release will be the result of our warming of the planet via the burning of fossil and other acrbon fuels, it could happen much more quickly. Indeed, it seems that we are currently pumping the greenhouse gas carbon dioxide into the atmosphere at a much faster -- perhaps tens to hundreds of times faster -- rate than has ever before naturally occurred in the last half billion years or so of the Earth's history. The catastrophic warming we are causing is -- to the best of our knowledge -- unprecedented since the early days of our planet, billions of years ago. Such warming could well lead to methane catastrophe. The onset of a methane catastrophe would be abrupt because it could be initiated by a major submarine landslide, which can happen in a matter of days or even hours, or by the venting of vast quantities of seafloor methane over a period of decades. These events can take place in what is essentially a geological eyeblink. Additional slumping and/or venting can continue for centuries to millennia. The amount of methane that can be released is indeed massive. Estimates of the amount of seafloor methane generally range from about 5000 billion metric tons to around 20,000 billion metric tons (a metric ton is equal to 1.1 imperial tons, the standard ton used in the United States), though they usually range around 10,000 billion metric tons. This amount of methane contains about 7500 billion metric tons of carbon, vastly more than all the estimated carbon in all fossil fuels: petroleum, coal, and natural gas. There is a simple way to put 10,000 billion metric tons of methane into perspective: it contains about ten times the amount of carbon (largely in the form of carbon dioxide) as does the entire atmosphere. Moreover, though methane entering the atmosphere is quickly oxidized, it is oxidized to carbon dioxide, so the problem of its warming ability will remain with us for thousands of years into the future. A methane catastrophe, therefore, is an abrupt surge of greenhouse gas that could rival or exceed the carbon dioxide warming of the planet. It could potentially overwhelm the natural heat regulatory system of the Earth, which operates in a much more gradual way, and on a much more protracted time scale. The quantity of methane that could be released is so massive there would be no remedial action that people would be able to take to mitigate it except in the most superficial way. Once a methane catastrophe were to begin, there would be major consequences for the planet and its inhabitants, human and other, and we would be able to do little except wait it out. Methane, in a very real sense, is the joker in the deck of global warming. As with the current increase in atmospheric carbon dioxide, a large methane release will undoubtedly contribute to an increase in acid rain, and, through its impact on global warming, a further rise of sea level, increased desertification, increased heavy precipitation, and extreme weather events. The slowing of ocean circulation or its actual stagnation because of greater planetary warmth are also possibilities. Such a slowing would paradoxically produce a decreased transport of warm water to the coasts of northeastern North America and northernmost Europe, making for much colder winters. In addition, the destabilization of methane within seafloor sediments can send 20 meter (60 foot) high tsunamis crashing into nearby coastlines. A methane catastrophe can have other major consequences in addition to sudden global warming. It can accelerate the slow but deadly acidification of the surface ocean (down to about 100 meters, or about 300 feet), which is now occurring as a result of the increase of carbon dioxide in the atmosphere and ocean. The methane can combine with dissolved oceanic oxygen, depleting the deeper part of the ocean (that is, the ocean below about 100 meters) of oxygen, and killing off the oxygen-using (aerobic) organisms at those depths. As acidification penetrates the deep ocean, even organisms that do not use oxygen (anaerobes) will be affected. Then there are the worst case scenarios. With the warming of the world ocean, its chemical balance and biological composition will change. The ocean will become stratified, with mixing between its surface and the deep ocean becoming increasingly restricted. If the deep ocean becomes fully anoxic (devoid of oxygen), it will also become toxic, as the remaining anaerobic organisms pump out the deadly gas hydrogen sulfide. In sufficient quantities, that gas could escape oceanic confinement to poison the atmosphere and, combining with the iron in the blood's hemoglobin, kill terrestrial organisms, including us. But the composition of the atmosphere could also change in a second way, because the amount of free oxygen depends on two things: the actual production of oxygen (by the ocean's photosynthetic plankton and terrestrial green plants) and the delivery of large amounts of carbon (as part of a "rain" of organic debris from organisms closer to the surface) to the ocean's bottom. This carbon, if not removed from the global carbon cycle by sinking and eventual burial in the ocean floor, will combine with oxygen and lower its concentration in the atmosphere. Once oceanic anoxia kills off aerobic marine organisms (those which require oxygen to live), the natural regulatory system for carbon will be sent into a tailspin. The amount of organic debris produced in surface waters will likely be reduced, the amount that rapidly descends to the ocean floor will be reduced, and the proportion that gets decomposed on the way to the bottom will be significantly reduced. Exactly how this will play out is unclear, because certain of these changes will operate to slow the removal of carbon from the global carbon cycle (which will act to decrease the amount of oxygen in the atmosphere), while others will enhance it (increasing atmospheric oxygen). When a similar disruption of the marine ecosystem occurred at the end of the Permian, a quarter of a billion years ago, atmospheric oxygen dropped to a fraction (about 2/5ths) of its previous level. But increased oxygen could be just as bad: oxygen ions (sometimes referred to as free radicals) can inflict genetic damage to DNA, causing mutations and cancer. We are certainly on the verge of releasing a huge amount of permafrost andseafloor methane within a very short time; we may also be on the brink of methane catastrophe. By our own actions -- by our continuing and increasing use of carbon fuels -- we are slowly but inexorably creating the conditions during which a such a methane release, catastrophic or more gradual, could occur. We probably have time to prevent a catastrophe, but there is a certain non-negligiblepossibility that we have already crossed -- or will shortly cross -- an invisible threshold that will render a methane catastrophe inevitable and unstoppable. Major anthropogenic global warming by carbon dioxide and possible methane catastrophe will be events more cataclysmic than any that can befall Earth, except for an impact with a giant asteroid or comet, or a stellar explosion in our neighborhood of the Milky Way. These other events, however, are quite rare and unlikely in our immediate future. Major anthropogenic global warming by carbon dioxide and possible methane catastrophe, by contrast, are highly likely and much more immediate. More importantly, unlike those other possible cataclysms, both are preventable -- probably -- if we take them seriously, begin to understand them, and -- most difficult of all -- begin to take steps to avert them. It has become fashionable to dismiss predictions of catastrophe, partly because they have become so common. Many of us have become jaded, what with one such prediction after another. We used to hear a good deal about nuclear holocaust, or nuclear winter, but as those threats seem to have faded in the public consciousness, there are others which have replaced it. We now hear of doomsday asteroids, the ozone hole, SARS (severe acute respiratory syndrome), bird flu, global warming, and the obliteration of species. The number of threats seems to be increasing. And, actually, that number is increasing. Prior to this epoch in human history, people simply did not have the ability to impact our planet in potentially catastrophic ways. Unfortunately, we now do have that ability. The ozone hole is a simple example. Never before was humanity on the verge of destroying this gaseous umbrella which protects us (and all other organisms that live at or near the surface of the Earth) from deadly ultraviolet light. Humanity simply didn't have that kind of power. But the advent of chloro-flouro-carbon (CFC) refrigerants gave us that ability, and the ozone layer sustained significant damage before the problem began to be addressed. Luckily, this is a problem for which there is a ready solution, and by banning the production of these ozone-harming chemicals, we have begun to bring the problem under control. The problem of carbon dioxide emissions, consequent global warming, and the prospect of a major seafloor methane release, however, will not be addressed so easily. We currently have no technology to trap and hold large quantities of carbon dioxide, and we are not likely to have such a technology for many decades in the future -- if indeed we ever will. Some of the excess carbon dioxide we produce is in fact currently slipping beyond our potential grasp, entering the oceans at the astounding rate of about a million metric tons (a metric ton = 1.1 standard ton) per hour, and increasing the acidity of seawater. There is, in addition, great resistance in a world economy driven and dominated by fossil fuels to shifting the energy base of that economy. Enormous corporate profits and personal fortunes, and the success of political efforts on their behalf, are also at stake. Slowing the stampede to catastrophically higher global temperatures and ocean destruction will require substantial international effort. Even so, should we today stop spewing carbon dioxide into the atmosphere, global temperatures will continue to increase for some time into the future. Despite our aversion to warnings of imminent catastrophe, our problem may be that we are not alarmed enough. Because of the delayed consequences of our dumping carbon dioxide into the atmosphere, the major effects of global warming will only be starting just as the world supply of oil is well on its way to depletion (about 2050). But already startling environmental changes -- the early, "minor" effects of global warming -- are occurring on Earth: ·With the exception of 1996, the years from 1995 to 2004 constitute 9 of the 10 warmest years since systematic record keeping began in 1861. ·The year 2005 was the warmest year since records have been kept. The next warmest years, in order, are, 1998, 2002, 2003, and 2004. ·Globally, glaciers have retreated, on average, almost some 15% since 1850. Glacial retreat has been recorded in Tibet, Alaska, Peru, the Alps, Kenya, Antarctica. ·Alaskan temperatures have risen about 2.8°C (5°F) in the past few decades. ·In the past several decades, about 40% of Arctic Ocean sea ice has disappeared. (Some researchers now believe, however, that at least part of this sea ice loss may be due to changing wind patterns over the North Pole, but these wind changes, themselves, may be due to a warming climate.) ·Between 1965 and 1995, the amount of melt water from the Arctic region going into the North Atlantic was about 20,000 cubic kilometers (about 4800 cubic miles), the equivalent of the fresh water in all of the Great Lakes combined (Superior, Huron, Erie, and Ontario) with the exception of Lake Michigan. Preliminary calculations indicate that an additional 18,000 cubic kilometers (4300 cubic miles) or so could shut down ocean circulation in the North Atlantic. That shutdown could occur in two decades or less, though most scientists believe it will take much longer. The Intergovernmental Panel on Climate Change, comprised of thousands of climate scientists worldwide, puts the likely slowing at about 25% by 2100. ·Trade winds across the equatorial Pacific have slowed because of higher humidity, and are projected to do so even more as time passes. The increase in humidity is the result of increased evaporation, traceable to global warming. This slowing of Pacific winds will also slow the ocean surface currents that the winds push along. Some scientists fear that at some point "the switch will be tripped" and nutrient-rich bottom water will no longer rise to the surface in the eastern Pacific (a "permanent El Niño" situation which did exist about three million years ago). These waters feed the plankton which feed the anchovies in one of the world's greatest fisheries. Much of the anchovy harvest is dried, ground up, and added to chicken feed, of which it is a major protein constituent. If the switch does trip, good-bye to inexpensive chicken. ·Upper ocean temperatures have risen between 0.5 and 1.0°C (0.9 to 1.8°F) since 1960. Deeper water has also warmed, but not by as much. The total amount of energy that has gone into the oceans as a consequence of global warming, however, is staggering: enough to run the state of California for 200,000 years. ·In addition to significant retreats of the glaciers on Greenland's margins, as of 2005 Greenland's massive ice sheet is melting at more than twice the rate it was in the previous three years. Glaciologists report that portions of the sheet which were solid ice just a few years ago are now riddled with meltwater caverns. ·The deep waters of the Southern Ocean (that which encircles Antarctica) have become significantly colder and less salty than they were just ten years ago. This is presumably due to the melting of Southern Ocean sea ice and parts of the Antarctic ice cap. Deep ocean waters have been previously presumed to be fairly isolated from climate warming but the data obtained from depths of four to five kilometers (more than two to three miles) now suggests otherwise. Such changes could significantly impact global ocean circulation. ·The Southern Ocean, which may absorb more carbon dioxide than any other region of the global ocean, as of more than twenty-five years ago ceased to absorb additional carbon dioxide. In fact, its ability to absorb carbon dioxide seems to be declining -- even as atmospheric levels of that gas are reaching ever higher levels -- most likely due to increased wind speed over that part of the global ocean. The higher wind speed in turn has been attributed to both global warming and the destruction of the Antarctic ozone layer. Because oceans eventually absorb most of the carbon dioxide that goes into the atmosphere, the declining ability of the Southern Ocean to absorb carbon dioxide is a particularly ominous development. ·Huge expanses of floating ice around Antarctica have collapsed into fragments in just weeks, after existing for tens of thousands of years. In addition, the ice that currently covers West Antarctica, known as the West Antarctic Ice Sheet (WAIS), which was quite recently (as of 2001) judged by the UN's Intergovernmental Panel on Climate Change (IPCC) as unlikely to collapse before the end of this century, or even for the next millennium, may now be starting to disintegrate, according to the head of the British Antarctic Survey. If this ice sheet does collapse, global sea level will rise by about 5 meters (16 feet). ·While global daytime temperatures, on average, increased only about 0.33°C (0.6°F) between 1979 and 2003, nighttime temperatures have risen more than 1°C (1.8°F). These environmental changes have had significant biological effects: ·In the eastern North Atlantic, warm-water phytoplankton (marine organisms that photosynthesize, produce oxygen, and constitute the bottom of the food chain) has moved north 1000 km (600 miles) over the past 40 years. ·In 2004, almost a quarter of a million breeding pairs of seabirds in islands north of Scotland failed to produce more than a few dozen offspring. Their reproductive failure is most likely due to the North Atlantic phytoplankton changes, and the consequent breakdown of the marine food chain. Many of the affected birds migrate back and forth between the Scottish islands and areas around the Southern Ocean (off Antarctica) over the course of the year. Starved in the north, they will never make it back to the south. Similar changes have been observed off the West Coast of the United States in 2005. ·Krill, small (about 5 cm/2 inches in length), shrimplike creatures which are a main food source for seals, whales, and penguins in the Southern Ocean, have declined in places to just 20% of their previous number in just 30 years. ·Grass now survives the winter in places on the Antarctic Peninsula, the warmest part of that frigid continent. When grass last was able to survive Antarctic winters is unknown. ·In the 17 year period from 1987 to 2003, the number and size of major wildfires in the western U. S. has increased dramatically. Compared to the 17 year period stretching from 1970 to 1986, the number of major wildfires has increased fourfold, and the area burned by major fires has increased sixfold. All of the presumed causes for this increase -- the earlier melting of snow, increased summer temperatures, an extended fire season, and an increase in the area of high-altitude forests which is vulnerable to such fires -- can be traced to global warming. ·The small increase in global nighttime temperatures indicated above (1°C/1.8°F), is sufficient to have reduced the biomass (the total mass of roots, stems, leaves, and grain) of rice, humankind's most important crop, by 10%. Rice is the primary foodstuff for more than half of the population of the world. With the warming, the release of methane has begun to follow: ·The Western Siberian Peat Bog, comprising an area of a million square kilometers (about 385,000 square miles, roughly the combined size of France and Germany), has begun to melt. This area is underlain by permafrost (permanently frozen ground that has existed since the Ice Age) perhaps a kilometer (about 3000 feet) deep. The permafrost contains an enormous amount of methane hydrate, possibly as much as a quarter of the total inventory of continental methane. As this permafrost warms and melts -- an irreversible process -- methane is released. This melting may add a quantity of methane to the atmosphere roughly equivalent to that released by all other natural and agricultural sources, increasing global warming by 10 to 25%. ·Already, methane emissions from certain areas of Siberian permafrost is proceeding much more rapidly than previously estimated. These extensive areas, characterized by Ice Age deposits of wind-blown dust (called loess) with high carbon and very high ice (50 to 90%) contents, are bubbling out methane at a rate five times higher than earlier presumed. Overall, these "yedoma" regions are contributing an additional 10 to 63% the total rate of methane release from the wetlands of the north. These are only the early effects, ripples from the storm which is to come. Remedial action is still possible, but the likelihood of catastrophe becomes more certain with each passing year.

Here’s more evidence on this question; a win is key to the agenda

**Green 10** [professor of political science at Hofstra University, David Michael Green, 6/11/10, "The Do-Nothing 44th President ", <http://www.opednews.com/articles/The-Do-Nothing-44th-Presid-by-David-Michael-Gree-100611-648.html>]

Moreover, there is a continuously evolving and reciprocal relationship between presidential boldness and achievement. In the same way that nothing breeds success like success, nothing sets the president up for achieving his or her next goal better than succeeding dramatically on the last go around. This is absolutely a matter of perception, and you can see it best in the way that Congress and especially the Washington press corps fawn over bold and intimidating presidents like Reagan and George W. Bush. The political teams surrounding these presidents understood the psychology of power all too well. They knew that by simultaneously creating a steamroller effect and feigning a clubby atmosphere for Congress and the press, they could leave such hapless hangers-on with only one remaining way to pretend to preserve their dignities. By jumping on board the freight train, they could be given the illusion of being next to power, of being part of the winning team. And so, with virtually the sole exception of the now retired Helen Thomas, this is precisely what they did.

Especially true in the context of LOST

**Bloomberg**, January 1st, 20**12** (some… company, I guess, “Watch These Global Hotspots for 2012: View,” <http://www.bloomberg.com/news/2012-01-02/after-tumult-of-2011-here-are-some-global-hotspots-to-watch-in-2012-view.html> >:)

The Arctic: This is not so much a hotspot as a cold spot, but it’s getting warmer. And as the planet’s northern icecap melts, it is becoming a cockpit of international competition. Tussles over newly accessible oil, other resources and suddenly navigable waterways may bring out the testiness even in such perennially agreeable countries as Denmark and Canada. Arctic states other than the U.S. are preparing their claims as signatories to the United Nations Convention on the Law of the Sea, which determines who has the right to benefit from the riches of any ocean. Die-hard conservatives in Congress have blocked U.S. approval of the law, falsely claiming that it would constrain the military -- arguments that the military, among others, rejects. A push by President Barack Obama, could probably win approval for the law in the Senate, thereby helping to safeguard the U.S. stake in the Arctic race and its role in keeping the peace there.

# 1NR

# Econ

Healthcare stimulus can save the economy.

Jonathan Fleece, 2-21-12 (Jonathan Fleece is a leading health care attorney in the U.S. and the co-author of The New Health Age: The Future of Healthcare in America., “Health Care Reform is the Best Economic Stimulus Package”, http://bigthink.com/experts-corner/health-care-reform-is-the-best-economic-stimulus-package?page=1 :)

Depending on which economist has the stage, America's economy is either experiencing slow growth, remains dismally flat, or stands ready to fall off a cliff. Nearly everyone agrees that the economy needs help. The nation's debt and budget deficits are reaching, or have already reached, fiscal crisis levels. Historians will analyze someday how close the United States came during this period to reaching the economic breaking point as a nation. Truth be told, some fear that the breaking point may still occur. The health of Americans is in shambles. This fact is certainly a contributor to the nation's weak economic strength. How can the nation's fiscal status improve if the country's state of health remains so poor? How bad is the country's physical and mental health? According to recent Centers for Disease Control and Prevention (CDC) statistics: 34 percent of Americans age 20 years and older are clinically obese and nearly two-thirds of U.S. citizens are overweight 20.6 percent of Americans 18 years of age and older currently smoke cigarettes Only 25.4 percent of American adults regularly engage in leisure-time physical activity 55.6 million Americans had ambulatory care visits (to physician offices or hospital outpatient or emergency departments) with mental disorders as the primary diagnosis The New England Journal of Medicine reports that: 465,000 smoking deaths could be prevented by quitting smoking 395,000 deaths related to high blood pressure could be prevented through medication and lifestyle changes 216,000 deaths could be prevented by reducing obesity 191,000 deaths could be prevented if Americans exercised regularly 190,000 deaths could be prevented by controlling diabetes 113,000 deaths could be prevented by controlling low-density lipoprotein cholesterol These deaths equal 1,570,000 people. Imagine the entire population of Philadelphia dying annually from preventable health conditions -- that's correct, preventable. The reality of the nation's state of health causes many Americans to be frustrated with their governments, employers, and when brutally honest, themselves. Expenses under government entitlement programs, including Medicare and Medicaid programs, are increasing at alarming rates, putting more and more financial stress on federal and states budgets. A great number of our politicians -- those who this nation depends upon for enacting sound laws and policies -- focus more on the political angles and arguments than on addressing these critical issues and challenges facing this country. Are the nation's leaders solving these problems or simply seeking political gains? Many employers remain fearful and resistant to hiring workers again or investing in needed capital because of the economic and political uncertainty. American companies are losing their competitive edge in a global marketplace because the U.S. workforce is physically and emotionally unhealthier than ever, not to mention that businesses have to pay more-and-more for health insurance every year. Companies are cutting or eliminating health care benefits to employees to survive in this economy. Today, the average cost per employee in America for health care approximates a staggering $12,000 annually. Much of these expenses are picked up by employers through employee benefits plans. American businesses can no longer afford such catastrophic costs in an increasingly competitive market place where businesses in other countries pay far less for health care. America needs a bold, mighty, and unifying national movement to rally and inspire us all once again. This nation is thirsty for an economic agenda that will pump new money, profitability, and growth into the markets. Citizens are seeking business and government leaders who will focus on economic growth and balancing sovereign budgets. Americans want to be healthier -- economically, physically, emotionally, and spiritually. Consequently, many leaders in the private and public sectors in the U.S. are driving reforms to improve health, bring down health costs in America, and to stimulate the country's economy. The nation has no choice. Even though the recent federal health care reform laws continue to create much debate, many other efforts are underway and gaining momentum. Reform has begun and it is here to stay. Out of health care reform, a new age is dawning. It is called The New Health Age. In The New Health Age, our wellness will go up, chronic disease will go down, life expectancy will increase dramatically, and needless spending on health care will decrease. This will create a new form of economic stimulus in the U.S. The economic benefits to this new age are virtually limitless. American businesses receive a needed economic boost and realize more profitability from a healthier workforce. American governments spend less on health care programs which reduces budget deficits and debt. The New Health Age produces economic growth and sound fiscal policies that this nation needs desperately. Although recent health care reform plans rose to the forefront through the public policy makers, the private sector is the primary driver of health care reform going forward. This unknown truth is the principle reason that health care reform is permanent and will drive economic growth. The free market economists see the opportunities that lay ahead if America moves towards becoming a healthier society and there are profits to be made as a result. When the health of Americans goes up, the costs will go down. Businesses that instigate and facilitate this change towards health can make tremendous profits from the opportunities ahead, not to mention the substantial societal benefits to living in a healthier country. Employers are forming new models for employee health care, named Employer Accountable Care Organizations (EACOs). EACOs use employee health risk assessments to analyze where employees spend the most on health care. EACOs tailor employee benefits plans around employee risk areas to manage the workforce's health conditions and to bring down costs. For instance, if twenty percent of a company's workforce suffers from diabetes, the EACO health plan designs benefits, incentives, and disincentives around lifestyle and medical systems to effectively prevent or manage this disabling disease. Focused models like these are the new way. Programs can be as simple as hiring case managers who call employees when they fail to refill insulin prescriptions, to implementing complex behavioral health programs designed to alter human behaviors that lead to diabetes, including diet and nutrition plans. Public entitlement programs are also getting more proactive and aggressive around chronic disease management and prevention. Federal and state Medicare/Medicaid programs are partnering with the private sectors to create dynamic health management programs, where the private sector accepts more risk through receiving fixed or capitated payments from the government to care for the lives of beneficiaries. The private sector health care providers create aggressive, preventative, and proactive medical home models that focus on preventing and managing costly chronic diseases, such as heart disease, lung disorders, mental illnesses, and others. By making populations healthier, government payers have realized that the overall costs of health care go down. History proves that avoiding population health only drives up costs, because patients present to hospital emergency rooms and elsewhere when their health conditions are out of control, unmanaged, and overly expensive. Reactionary health care is very expensive. Preventative health care reduces costs. The private sector is increasingly willing to accept risk from government entitlement programs and enjoy the profits that can result from managing health and making people healthier. These reform efforts will produce healthier citizens, lower health care costs, create a more productive society, and reduce worker absenteeism -- all of which increases economic prosperity. Disease management, wellness, and prevention fosters stimulus in the public and private sectors, thus freeing up capital that gets reallocated to better and higher uses. Government spending goes down as well. What is the message? Stop printing new dollars for stimulus. Health care reform and the corresponding benefits is what America requires for economic growth. Embrace reform. Embrace The New Health Age

Education stimulus saves the economy, but we need to keep going.

Alyson Klein, 7-18-12 (Education Week, “Stimulus Aid Saved Education Jobs, Research Group Concludes”, http://blogs.edweek.org/edweek/campaign-k-12/2012/07/do\_not\_publish\_till\_midnight.html :)

The federal economic-stimulus program's $100 billion in education aid largely met its goals of preserving or creating K-12 jobs and jump-starting education-redesign efforts at the state level, according to a new study from the Center on Education Policy, a research organization in Washington. A series of surveys by the CEP looked at the impact of the American Recovery and Reinvestment Act, passed in 2009, which poured emergency aid into the states to help alleviate the effects of the Great Recession and wound up giving K-12 education its biggest windfall ever. The ARRA was followed by the $10 billion Education Jobs Fund, which was created in the summer of 2010. The CEP surveys found that 52 percent of school districts with funding cuts were able to make up for them using money from the $48.5 billion State Fiscal Stabilization Fund, the part of the stimulus most closely focused on saving jobs and offsetting local reductions. And, in another 45 percent of those districts, the federal dollars helped patch at least some budget holes. Most districts—69 percent—used State Fiscal Stabilization Fund money to save or create jobs. The stimulus also provided new, one-time money for the two main federal formula programs—Title I grants to help disadvantaged students, and special education state grants. Districts used some of that money for job-saving purposes, too, CEP found. The money was a one-time infusion that has been phased out overtime. But that didn't mean there were no layoffs. In fact, during the 2010-11 school year, about 85 percent of districts with budget decreases cut staff positions, including teacher jobs, the study found. And in the 2011-12 school year, 61 percent of districts with budget decreases cut jobs. Districts were also cognizant of the one-time nature of the stimulus funds. Two-thirds said that was a big influence on how they spent the money. Secretary of Education Arne Duncan suggested districts invest the money into one-time programs that could yield big long term gains, such as professional development. The education portion of the stimulus was billed as more than just a jobs program—it was supposed to help states and districts embrace new reforms. And, CEP found that the funding did help states come together on a shared education-redesign agenda, focused on the four main goals of the ARRA'S education funding (improving state systems, turning around low-performing schools, beefing up standards and assessments, and bolstering teacher quality). Twenty states told CEP that the stimulus accelerated the pace of reform in their state, and 18 said it broadened the scope of their education redesign priorities. But a lot of states have stumbled when it comes to implementing that agenda, according to the CEP analysis, in part because, despite the big federal cash bump, state education agencies didn't see much of an increase in their own resources. Plus, now that the federal tide of cash has receded, some states and districts are putting off implementation of reforms. Five out of the 17 states that told CEP they'd experienced funding decreases in fiscal year 2011 also said they were postponing reforms. And, last year, two-thirds of the districts that said they had made funding cuts said they were slowing down their education redesign efforts.

Zero conflicts happening today over multiple databases can be attributed to economic downturn.

Barnett, senior managing director of Enterra Solutions LLC, contributing editor/online columnist for Esquire, 8/25/’09

(Thomas P.M, “The New Rules: Security Remains Stable Amid Financial Crisis,” Aprodex, Asset Protection Index, http://www.aprodex.com/the-new-rules--security-remains-stable-amid-financial-crisis-398-bl.aspx)

When the global financial crisis struck roughly a year ago, the blogosphere was ablaze with all sorts of scary predictions of, and commentary regarding, ensuing conflict and wars -- a rerun of the Great Depression leading to world war, as it were. Now, as global economic news brightens and recovery -- surprisingly led by China and emerging markets -- is the talk of the day, it's interesting to look back over the past year and realize how globalization's **first** truly **worldwide recession** has had virtually ***no impact whatsoever*** on the international security landscape. *None* of the more than three-dozen ongoing conflicts listed by GlobalSecurity.org can be clearly attributed to the global recession. Indeed, the last new entry (civil conflict between Hamas and Fatah in the Palestine) predates the economic crisis by a year, and three quarters of the chronic struggles began in the last century. Ditto for the 15 low-intensity conflicts listed by Wikipedia (where the latest entry is the Mexican "drug war" begun in 2006). Certainly, the Russia-Georgia conflict last August was specifically timed, but by most accounts the opening ceremony of the Beijing Olympics was the most important external trigger (followed by the U.S. presidential campaign) for that sudden spike in an almost two-decade long struggle between Georgia and its two breakaway regions. Looking over the various databases, then, we see a **most familiar picture**: the usual mix of civil conflicts, insurgencies, and liberation-themed terrorist movements. Besides the recent Russia-Georgia dust-up, the only two potential state-on-state wars (North v. South Korea, Israel v. Iran) are both tied to one side acquiring a nuclear weapon capacity -- a **process *wholly unrelated to global economic trends****.* And with the United States effectively tied down by its two ongoing major interventions (Iraq and Afghanistan-bleeding-into-Pakistan), our involvement elsewhere around the planet has been quite modest, both leading up to and following the onset of the economic crisis: e.g., the usual counter-drug efforts in Latin America, the usual military exercises with allies across Asia, mixing it up with pirates off Somalia's coast). Everywhere else we find serious instability we pretty much let it burn, occasionally pressing the Chinese -- unsuccessfully -- to do something. Our new Africa Command, for example, hasn't led us to anything beyond advising and training local forces.

# Warming

NASA Aqua satellites disprove the impact

Owen McShane, chairman of the policy panel of the New Zealand Climate Science Coalition and director of the Centre for Resource Management Studies, 2008

(Cites Roy Spencer, principal research scientist for U of Alabama in Huntsville and recipient of NASA's Medal for Exceptional Scientific Achievement, “Climate change confirmed but global warming is cancelled”, The National Business Review (New Zealand), Lexis)

Atmospheric scientists generally agree that as carbon dioxide levels increase there is a law of "diminishing returns" - or more properly "diminishing effects" - and that ongoing increases in CO2 concentration do not generate proportional increases in temperature. The common analogy is painting over window glass. The first layers of paint cut out lots of light but subsequent layers have diminishing impact. So, you might be asking, why the panic? Why does Al Gore talk about temperatures spiraling out of control, causing mass extinctions and catastrophic rises in sea-level, and all his other disastrous outcomes when there is no evidence to support it? The alarmists argue that increased CO2 leads to more water vapour - the main greenhouse gas - and this provides positive feedback and hence makes the overall climate highly sensitive to small increases in the concentration of CO2. Consequently, the IPCC argues that while carbon dioxide may well "run out of puff" the consequent evaporation of water vapour provides the positive feedback loop that will make anthropogenic global warming reach dangerous levels. This assumption that water vapour provides positive feedback lies behind the famous "tipping point," which nourishes Al Gore's dreams of destruction, and indeed all those calls for action now - "before it is too late!" But no climate models predict such a tipping point. However, while the absence of hot spots has refuted one important aspect of the IPCC models we lack a mechanism that fully explains these supposed outcomes. Hence the IPCC, and its supporters, have been able to ignore this "refutation." So by the end of last year, we were in a similar situation to the 19th century astronomers, who had figured out that the sun could not be "burning" its fuel - or it would have turned to ashes long ago - but could not explain where the energy was coming from. Then along came Einstein and E=mc2. Hard to explain Similarly, the climate sceptics have had to explain why the hotspots are not where they should be - not just challenge the theory with their observations. This is why I felt so lucky to be in the right place at the right time when I heard Roy Spencer speak at the New York conference on climate change in March. At first I thought this was just another paper setting out observations against the forecasts, further confirming Evans' earlier work. But as the argument unfolded I realised Spencer was drawing on observations and measurements from the new Aqua satellites to explain the mechanism behind this anomaly between model forecasts and observation. You may have heard that the IPCC models cannot predict clouds and rain with any accuracy. Their models assume water vapour goes up to the troposphere and hangs around to cook us all in a greenhouse future. However, there is a mechanism at work that "washes out" the water vapour and returns it to the oceans along with the extra CO2 and thus turns the added water vapour into a NEGATIVE feedback mechanism. The newly discovered mechanism is a combination of clouds and rain (Spencer's mechanism adds to the mechanism earlier identified by Professor Richard Lindzen called the Iris effect). The IPCC models assumed water vapour formed clouds at high altitudes that lead to further warming. The Aqua satellite observations and Spencer's analysis show water vapour actually forms clouds at low altitudes that lead to cooling. Furthermore, Spencer shows the extra rain that falls from these clouds cools the underlying oceans, providing a second negative feedback to negate the CO2 warming. Alarmists' quandary This has struck the alarmists like a thunderbolt, especially as the lead author of the IPCC chapter on feedback has written to Spencer agreeing that he is right! There goes the alarmist neighbourhood! The climate is not highly sensitive to CO2 warming because water vapour is a damper against the warming effect of CO2. That is why history is full of Ice Ages - where other effects, such as increased reflection from the ice cover, do provide positive feedback - while we do not hear about Heat Ages. The Medieval Warm Period, for example, is known for being benignly warm - not dangerously hot. We live on a benign planet - except when it occasionally gets damned cold. While I have done my best to simplify these developments they remain highly technical and many people distrust their own ability to assess competing scientific claims. However, in this case the tipping point theories are based on models that do not include the effects of rain and clouds. The new Nasa Aqua satellite is the first to measure the effects of clouds and rainfall. Spencer's interpretation of the new data means all previous models and forecasts are obsolete. Would anyone trust long-term forecasts of farm production that were hopeless at forecasting rainfall? The implications of these breakthroughs in measurement and understanding are dramatic to say the least. The responses will be fun to watch.