

Assigning Accountability and Providing Compensation for Environmental Costs of the US

Transportation Sector

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We engage in many forms of environmental pollution in the US today through a variety of undertakings including dry cleaning, degreasing and painting and, most significantly, driving and putting gas into vehicles ('Basic Information' 1). Many of these doings are hard to control, but the government does have control over transportation environmental impacts. When looking specifically at this issue, major problems arise as the societal costs are considerably high due to environmental externalities. Examples of these externalities outlined by Canadian scholar of transportation geography, Dr. Jean-Paul Rodrigue, include climate change, air quality, noise, water quality, soil quality, biodiversity and the construction of the land (Rodrigue Ch. 8). This presents many environmental drawbacks to modern transportation. Individuals are affected by these drawbacks resulting in a societal loss. Moreover, the government reduces this societal loss by controlling the environmental impact of transportation through policy to regulate and tax consumers of the automobile industry. For example, emission standards are ongoing to ensure that the environmental impact of each vehicle is at a certain standard. This is a costly and time-consuming process as consumers are required to pass these standards in order for their vehicles to be street legal. The incentive behind this is to reduce pollution of automobiles. This incentive is reasonable and clear, but why can't this incentive apply to the entire transportation sector? Why is it that the individuals are responsible for their vehicle's emissions when the only reasonable means of transportation are through automobiles? Shouldn't the government provide a means of transportation that attributes less environmental externalities? Therefore, shouldn't the US government be equally responsible for the environmental costs from transportation? Instead, US citizens that participate in automobile transportation are assumed full responsibility. To summarize, the US is experiencing difficulties with the environmental impact of our transportation system and the government's current solution is to punish the consumers that

participate in this system through automobiles. Therefore, rather than the consumer of the automobile industry being held accountable for environmental costs, the US government needs to take full responsibility for the lack of reasonable, environmentally efficient transportation by providing more electric trains in urban areas and railroads with equivalent efficiency to highways and freeways because this will result in significantly fewer environmental problems and a benefit to society with less traffic and a plethora of jobs.

To begin, the US government needs to create accessible, environmentally efficient transportation through railroads that require the same access as freeways and highways because this will result in many environmental benefits. An analysis in Slovenia was conducted in order to observe freight transportation on road versus on railroad. According to this analysis, “Of the two transport modes compared here, road transport is much more polluting than rail transport per tonne-km of goods transported (Santos, Behrendt & Teytelboym, 2010).” (Erjavec 68). This means that rail transportation is significantly more environmentally friendly to road transportation. Another example of the environmental benefits to trains may be observed in the production of high-speed rails. According to an article titled ‘High Speed Train VS Airplane’ with regards to CO₂ emissions, “Not surprisingly, the train wins big time here. It produces around 26 kg CO₂ per passenger compared to 50 kg pp on the plane.” (Eli). These are some additional concrete details of the environmental benefits of trains. Therefore, the US government needs to take responsibility for the environmental externalities of our transportation system by providing rail transportation with the same accessibility as our road system because this will result in less environmental costs.

In addition to the US government creating a more accessible rail system, the production of more electric trains in urban regions would acquire additional environmental benefit. A senior

fellow of the Manhattan Institute, Peter Huber, is interested in the benefits to electric modes of transportation. In an editorial, he observes “burning the fuel at a power plant and delivering electricity to the train is considerably more efficient than burning fuel in the train.” (Huber). This means that producing more electric trains in urban areas would better preserve energy than trains that burn fuel on their vessels. In addition to Huber’s observation, in the Salem Press Encyclopedia, his assertion is verified. It is stated in reference to electric trains, trams and buses that “Such green vehicles emit less pollution than equivalent standard vehicles (even accounting for the emissions output from generating the electricity they use).” (Ahammad). This identifies the fact that less pollution is produced from electric trains than other means of transportation such as cars. Moreover, the production of electric trains in urban areas would provide an efficient solution to reducing environmental costs. To conclude, instead of punishing participants of the current transportation system, the US government must take responsibility for the resulting environmental externalities by providing access to electric trains in urban regions because environmental costs will be reduced.

Along with environmental benefit being a result, by taking responsibility for the environmental externalities of our transportation system and providing an efficient train system, the US government will accomplish societal benefits through reduced traffic. The reduction of traffic results in many economic benefits. Two Spanish economists observe the benefit of reduced traffic from a high-speed train in Spain. In their research, they found “traffic reduction generates economic benefits derived from time savings, reduction in car-operating costs and accidents.” (Rus 180). This means that because the train allows for less traffic, time when traveling is saved, car expenses are lower and less accidents occur. These concrete details provide the consequences of traffic reduction when train travel is increased. Therefore, the US

government needs to take responsibility for environmental externalities due to the transportation system by implementing an efficient train system because it will benefit society by reducing traffic.

Society will also benefit with more jobs as a result of the US government creating an efficient train system. Currently unemployment is an issue frequently encompassing headlines of newspapers. A project to create a complex railway system with the same magnitude of our current road system will generate a plethora of jobs. It is difficult to estimate the number of jobs produced, but we can analyze data from current road construction projects. In the Salem Press Encyclopedia, regarding road maintenance and repair jobs, researchers estimate, "Since February, 2010, the construction industry in general has added forty thousand new jobs." (Martinez). This is explaining that forty thousand new jobs have been produced in the past few years for the maintenance of our roads. We can assume that the railway project will most likely produce more jobs because the railways will have the same accessibility to freeways and highways and they have not even been built yet. To conclude, we notice that society will benefit with jobs if the US government takes responsibility for the environmental externalities from our transportation system and builds a complex train system.

Many people may argue that rather than pressuring the US government to take responsibility for creating an environmentally hazardous transportation system, we should pressure the US government to encourage the use of more environmentally friendly vehicles. This view encounters numerous issues. To begin with, let us consider the research given in the analysis of freight on railways and roads. It is found that the cost of transporting freight on roads is much cheaper than railroad, but has a much higher environmental impact. The traditional role of the government in this scenario is to encourage railway freight transport because it is less

costly to the environment. The researchers consider the government implemented road tolls equivalent to the cost of transporting freight by railway in order to reduce the environmental cost. They discovered “the tolls would have to be raised by 492% in order to make the road freight transport costs equal to the railroad freight transport costs.” (Erjavec 72-73). This means that tolls would have to be almost 5 times higher than they currently are in order for the cost of transporting freight on roads to be equivalent to transporting freight on railways. This unreasonable increase in the costs of tolls is a solution to incentivizing freight to be traveled on trains. Let us assume the US government implemented a train system in competence to our current road system, the government could then prohibit non-electric automobile travel on public roads and fix this problem altogether. Therefore, a government incentive to encourage environmentally efficient transportation of freight fails while an argument for the US government to take responsibility for the environmental externalities of the transportation system stays consistent.

We notice the argument that the US government should implement policy to encourage consumers of the automobile industry to buy hybrid cars failing as well. The New Hampshire Business Review writes an article titled “It’s not always easy driving green”. In this article, author Cindy Kibbe states “On average, hybrid vehicles cost from \$1,000 to as much as nearly \$7,000 more than their gas-powered counterparts” (Kibbe 35). This shows that if government compensation was given, the government would have to account for the additional cost of these cars which is unreasonable because this would result in a major decrease in government funds. Therefore, this concrete example shows us how government policy to encourage consumers of the automobile industry to buy hybrid vehicles fails. If the government were to instead take responsibility for the environmental externalities from transportation, this conversation would

not even exist because people would be traveling by train as it is more time sufficient and less costly. To conclude, while in many situations implementing policy to encourage more environmentally efficient travel fails, the creation of an environmentally efficient train system with equivalent accessibility to our road system as a result of the US government taking responsibility for the creation of an environmentally faulty transportation system does not fail.

To conclude, the US government needs to take responsibility for the environmental externalities of our transportation system by providing train transportation with the same accessibility as roads because this will result in less environmental costs and a societal benefit. We notice through the comparison of freight travel on road versus railroad that railroad is much more environmentally efficient. In addition, when we compare trains to airplanes, we see a far less carbon emission per passenger. Therefore, if the US government created railroads with the same access as highways and freeways, we notice far better environmental benefits. In urban areas, we saw electric trains and light rails as a significantly more environmentally efficient mode of transportation to cars. Next, the societal benefits of the proposed train system through jobs and reduced traffic were outlined. Finally, we addressed the argument that US government policy is a solution to fix the environmental externalities from transportation. It was clear that a more logical solution is for the US government to take responsibility for the environmentally destructive transportation system we currently use and build a more environmentally efficient system. Moving forward, the US government needs to be held accountable for putting automobile consumers at fault for environmental externalities because the government is responsible for the creation of our current transportation sector. They must compensate the environmental loss by making an efficient train system that eliminates the need to travel by

automobile. This will ensure that the transportation sector will never be a significant provider of pollution and allow all parties to benefit.

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