

How Social Ideologies Hinder the Development of Passenger Rail in the U.S.

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Hannah Hockensmith

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On my honor as a University Student, I have neither given nor received unauthorized aid on this assignment as defined by the Honor Guidelines for Thesis-Related Assignments

Advisor

Peter Norton, Department of Engineering and Society

Commuting by rail is more environmentally friendly than driving (Miller, 2021) or air travel (Chaudhury, 2003). Relative to driving, it can also save time and is much safer. Yet, compared to many other countries, the U.S. lacks an extensive passenger rail system (Pouryousef et al., 2013). Given that the US has the largest economy in the world (World Bank, 2022) and has been ranked by the World Economic Forum (2016) as having the 12th best infrastructure out of 138 countries, it is clear the passenger rail issue does not stem from a lack of funds, lack of knowledge, or lack of skill in building infrastructure. The issue may instead lie in choosing *what* to build and *how* to spend money, decisions that are determined on the basis of a collective's mindset, values, and interests. Americans have often resisted efforts to improve their poor passenger rail system, indicating that social ideologies impede passenger rail development in the U.S. Arguments between citizens, rail companies, and political parties about funding sources and the necessity of train travel in the US create a stalemate in the development of passenger rail by fueling outspoken resistance to pro-rail legislation and actions.

Literature Review

The domination of car and air travel is documented as direct competition for rail travel. The Urban Institute, an economic and social policy research organization, sites cars as a primary downfall of rail in US history (Deloya, 2023). The economic feasibility of travel mode is important to choice, but experts disagree about the comparative cost efficacy of passenger rail, driving, and air travel, The Amtrak year-end report from 2019 suggests the user cost is 37.6 cents per passenger mile while domestic airfare averaged 18.6 cents (Bureau of Transportation Statistics, 2019) and light-duty vehicle use cost 25 cents per passenger mile (Anti planner, 2021). These costs are discussed in terms of the system as it stands today and are often used to explain

why Americans do not choose rail. However, these analyses fail to reevaluate costs shifts if there were shifts in ridership, policy, or subsidies. Willingness to change in a transportation context is rarely addressed, but the Pew Research Center (2022) found that 63% of Americans say the country will be better off if it is open to change. Cost breakdown articles do not ponder whether citizen opposition to rail goes beyond cost, but some do acknowledge that a normal individual is not aware of extensive cost breakdowns.

Speculations that rail would struggle to defeat costs, urban sprawl, and car dominance run rampant, but there is little discussion of how American ideology upholds an anti-rail rhetoric. There is little quantification of the individualism of Americans, likely due to its difficulty to quantify. There are, however, observations on its existence. The book “The Good Society” attributes deeply engrained individualism to preventing Americans from “taking charge” to fix the failing institutions of our society. There is even less research that connects individualism to the opposition of rail. Klein et al. (2022) analyzed the role of self-interest in transportation policy preferences but did not come to a significant conclusion, although they did speculate by example that conservatives see planning efforts as a threat to individual freedom. They also cited difficulty imagining a future different from current realities and knowledge disputed and polarized by parties as a reason for lack of support of transportation reform. Klein et al. (2022) also notes that political polarization works against the advancement of transportation agendas (Klein et al., 2022). Lim and Moon (2022) found that political trust is an important influence on policy acceptance and that conservatives are more likely to present anti-trust attitudes but conversely become more supportive of transport policy with high levels of political trust. Only 72% of United States citizens believe global warming is happening (Howe et al., 2015), but the effects of this belief have not been connected to rail preferences specifically.

Protests to rail investments are widespread and few people have researched how the values within American society explain this. Dissatisfaction with the existing system is distinct from the desire for a better future. In this paper, I do not argue that the current system is undesirable, rather that American ideology leads to the opposition of a system that could be desirable.

Car Dependence and Social Perceptions

One of passenger rail's largest obstacles is the car-centric mindset of Americans. Rail struggles to attract car passengers partially because cars are a display of status and are ingrained in the "American Dream". This term was first coined in the 1931 book, "Epic of America" which presented ideals of success, upward mobility, and liberty. Car manufacturers appeal to these ideas by marketing their vehicles as modes of freedom and tools for adventure. The introductory message for the Mustang on Ford's webpage is "running free" (Ford Motor Company, 2023). It's an appeal not only to their mascot, but to the American dream's promise for liberty. Car ownership, like homeownership, symbolizes American success and is a ladder through social classes. Even early on, prominent families like the Rockefellers publicly paraded their cars to signal wealth. While Henry Ford increased the accessibility of cars with the revolution of mass production, not owning a car is still seen as a disgrace. The perception is that non-car owners are poor or physically or legally incapable of driving, and the belief that rail is for the underserved and therefore promotes crime is formed. In a public hearing held after an Atlanta suburb voted to join the city's public transit network, a woman spoke her disdain saying that she sees "unsavory people" arriving to the subdivision through public transit (O'Brien, 2014). After choosing train over plane, one user decided "the train...is for misfits" (Koester, 2014). In an article illustrating

unconventional reasons for the tragic state of US rail, the author notes that even politicians see public transportation as “a government aid program to help poor people who lack cars” rather than a vital transportation function (Stromberg, 2015). People also hold the perception that rail is old-fashioned. As one vice magazine writer describes, rail conjures images of “a great Depression-era hobo carrying a bindle” (Koester, 2014). It is a nostalgic image but not a desirable one. Long ago in the “depression era” rail too was a symbol of freedom, but now it’s the opposite. Some critics have called it “the future of two decades ago” (Will, 2011) implying rail efforts should be abandoned.

Klein et al. (2022) found that even with strong support for public transportation advancement, there is hesitation to decouple society from cars. Only 32% of respondents said that reducing car use should be the central goal of transportation policy. There is a large push from government and corporations to choose electric vehicles (EVs) as a sustainable mobility option, despite the plethora of environmental and ethical concerns around their battery procurement. A shift to EVs is not a shift away from cars and undermines the success of passenger rail. As the director of the National Campaign for Transit Justice asks, “EVs are great, but what about a good old-fashioned bus [or train]?” (Hall, 2023) Hall also notes that EVs are tempting because they are new and “more exciting” than buses and trains. Again, perceiving trains as old-fashioned inhibits their success.

Individualism

Although policymakers and citizens in support of rail transit base decisions on the greater good, there is deep-rooted individualism in American citizens, which civilian critics of rail travel perpetuate through NIMBY protests. In 2011, San Francisco residents sued a rail company for

inadequately analyzing “noise and vibration,” “traffic impacts,” loss of privacy, and decreased property values in their community from a high-speed rail (HSR) project (SCSC, 2011).

Residents opposed trains crossing their town due to undetermined impacts on their affluent neighborhood, despite that a reroute would render the train and all its benefits inaccessible for a larger population. Implementation of rail requires extension planning and land use, but

Trapenberg Frick et al. (2015) found that conservative state legislatures often see planning efforts as a threat to individual freedoms. American individualism also manifests as self-expression.

Cars, again standing rail’s way, are a tool for self-expression and individuality. Chevrolet capitalizes on this with the tagline “Every truck tells a story. Make yours count.” to market their Silverado trucks (General Motors, 2023).

Financial Values

The prioritization of financial gain leads to the subconscious idea that money spent on public goods is money wasted. Particularly, people are against their tax dollars funding new railroads. As the CEO of the Mississippi Center for Public Policy says in his argument against rail development, “taxpayers shouldn’t have to pay for passenger rail they aren’t using.” He doesn’t believe there is enough ridership to warrant public funds and challenges that a private company would have capitalized on the rail sector “if profit really can be generated through such a service” (Pritchett, 2019). The belief that rail systems are feasible only if profitable and should be user-paid ignores the definition of transportation as a public good - a commodity that is provided without profit to all members of society. Despite resistance to using tax money and the federal budget for rail, highways are largely funded through these means (FHWA, 2014) with little backlash. It is difficult to draw attention to this hypocrisy due to the longstanding notion

that roads are user-paid (i.e. from tolls, gas taxes, license plate fees), a conception fueled largely by the Federal Highway Administration's funding of the early 20th century (Kent, 1982). Today, 80 cents of every federal transportation dollar is allocated to highways (Transportation for America, 2010). Amtrak, the National Passenger Railroad Corporation, is open about their use of federal funds and their operating deficit (Amtrak, 2022). They continue to operate for the sake of the greater good, an ideology conveyed through the intentions of Amtrak funding sources. The Infrastructure Investment and Jobs Act, which aims to "create good jobs," "tackle the climate crisis," and grow the economy "equitably" (White House, 2021) is a large Amtrak funding source. The financial values hindering passenger rail include objection to personally paying for climate action, in addition to the opposition to the use of federal funds. Thus forms the conundrum where people support public transit and other climate-related initiatives, but they aren't willing to pay for it and don't know who should. Nearly 70% of Americans want the US to take aggressive climate action, but only a third would support an extra tax of \$100/year to help cover costs (Volcovici, 2019). One transit-focused survey finds 41% of conservatives and 14% of liberals see spending some of the gas tax on public transit as unfair even without considering an increase in the tax (Klein et al., 2022). Aggressive climate action requires the US to make a huge transition, and until people accept that it's not free, passenger rail will continue to struggle against financial arguments.

Partisanship

The political climate of the United States has grown increasingly partisan, so deeply that the divide has become a hinderance to passenger rail development. As the Pew Research Center (2014) describes it, "Republicans and Democrats are more divided along ideological lines... than

at any point in the last two decades.” The research places 92% of republicans to the right of the median democrat, and 94% of democrats to the left of the median republican, meaning the ideological overlap between the two parties is severely diminished. Political polarization alone might not interfere with transportation reform, but preferences on transportation policy and funding are so strongly connected to political ideology that “embracing partisanship may exacerbate tensions and hamper [transit policy] progress” (Klein et al., 2022). Transportation policy preferences are now a stronger predictor of voter support for transportation policies than an individual’s education, race, or income (Nall, 2018; Nixon & Agrawal, 2019; Ray et al., 2020). In general, conservatives tend to support transit policy reform less than those with liberal ideals. In a 2022 survey from Klein et al., conservative respondents were three times as likely to think using gas taxes to fund walking, biking, and transit is unfair. Conservatives were also more skeptical that “investing heavily in walking, biking, and transit” would truly alter the travel patterns of Americans (59% vs. 23%). In 2023 the republican controlled house appropriations committee proposed immense transportation-related budget cuts for fiscal year 2024, labeling these investments as “wasteful spending,” “wasteful climate and equity initiatives,” and referred to the California HSR project as “failed” (H.R. 4820, 2023). Even more than divided political ideals, the parties hold a distinctively negative view of the other, which can lead to repealing of initiatives where there otherwise may have been simple inaction. Many intense partisans believe the opposing party’s policies “are so misguided that they threaten the nation’s well-being” (Pew Research Center, 2014). The H.R. 4820 budget cuts were in direct response to recent Biden legislation increasing rail funds through the Bipartisan Infrastructure law and the Inflation Reduction Act. Republican justification for reducing spending stated that programs were “overfunded by Democrats” revealing an attempt to undermine a political party, rather than to

consider the importance of transportation. Rail Passengers Association President described the budget cuts as not taking “the task of governing seriously” and says that the bill ignores the needs of communities in favor of “scoring cheap political points” (RPA, 2023) .

Transportation policy preferences rooted in political affiliation enable strategic control of public opinion, a power used to strike down passenger rail initiatives. John Gaventa, a political sociologist, developed theories of power in his book “Power and Powerlessness” to uncover ways in which social powerlessness can be created. The third dimension of power seeks to prevent conflict by shaping consciousness and awareness or by controlling information. Essentially, people are told what to believe, what to like, and where they stand in the world, often without realization. A political party and government actors can influence public awareness by framing transportation issues in terms that fit their agenda. In efforts to maintain ample parking in San Francisco, conservatives appealed to concerns of family values and the needs of small businesses (Henderson, 2013) despite data proving that parking removal does not hurt small businesses (Jaffe, 2015). By presenting values important to conservative voters, this appeal sways opinions and controls the “information” about transportation policy effectiveness known to citizens. A critic with a great deal of reach is George Will, a Pulitzer Prize winner and political commentator. He frames passion for trains as progressives’ way of “diminishing American individualism” and making people more “amendable to collectivism” (Will, 2011). This is an indirect accusation of communism, something feared by Americans. Even the use of such strong language is enough to shape consciousness. Will also challenges projections of ridership estimates for a Florida rail service by calling them “preposterous.” Will does not need an alternate estimate to convince people what to believe. He is a man of status, telling the public that something is wrong, thereby controlling their flow of information and shaping their

awareness. Gaventa's third dimension of power is not inherently partisan (that is, this method of creating powerlessness is applicable to everyone) but through it, knowledge becomes political. Research outside of transportation has shown that knowledge filtered and framed through a partisan lens shapes individual beliefs, and Americans use party affiliation to form attitudes (Zaller, 1992). Research within transportation finds that knowledge is associated with political affiliation but finds varied results on differing knowledge affecting transit policy preferences. A common misconception among the public is that expanding roadways reduces traffic congestion in the long-term. In reality, it increases traffic (Volker & Handy, 2023) through a phenomenon called induced demand. Only 45% of liberals and 24% of conservatives were aware of induced demand. In this case, politically affiliated knowledge did affect the likelihood of support for transit policy. People who understood induced demand were 25% more likely to support changing the status quo (i.e. diverting from roadway expansions as a congestion relief tool). Under a nonpolitical lens, a transportation for America survey (2010) demonstrates that knowledge affects transit support. The survey reveals only 17 cents of every federal transportation dollar goes to public transit, including rail, and then asks respondents if they support allocating more funding to public transit. Respondents are later provided information regarding public transportation and asked again whether they support increased funding. After being informed, support for increased funding jumped up by 6%. Americans are woefully uninformed about transportation (Klein et al., 2022). Regardless of whether there are significant effects of *partisan* knowledge on transit policy preferences, an uninformed public is a hindrance to passenger rail.

Distrust for Government

Americans have held distrust for government since the creation of the United States when the ability to speak out against a government was written into the constitution and when states were given significant power. An ideology of distrust comes as a hinderance when rail is initiated by state or federal government. Previous Florida governor Rick Scott refused \$2.4 billion in federal funding to develop rail claiming there is too much “risk” in accepting money from the government (Williams, 2011). He believed the government would revoke money after construction began, would stick Florida with unforeseen costs, and he doubted their ridership projections. Scott was the 3rd governor to reject joining the national rail system because of such distrust. Klein et al. (2022) found that government distrust was strongly associated with lack of support for shifting the status quo away from highway expansion and toward public transit options like rail. Among those who believe government regulations “go too far” only 30% supported changing the status quo. In pushing back against a rail safety bill, a conservative advocacy group was fearful the DOT would get “unimaginable authority” from the legislation (Shapero, 2023). In the complex system of transportation, regulation is a requisite. Disdain for the regulator creates difficulty in designing efficient rail.

Climate Bias

Both partisan divides and government distrust have leaked into an area especially relevant to passenger rail - climate change. Support for passenger rail becomes less likely if one of its benefits – being less harmful to the environment by saving greenhouse gas emissions – becomes null based on an individual’s belief that climate change is not real. While 72% of Americans believe climate change is happening, only 58% believe global warming is mostly

caused by humans (Marlon et al., 2022). Regardless of belief in global warming validity, Pew Research Center (2023) found that 53% of Americans said they are skeptical of the groups pushing for action on climate change. Their analysis also found that crisis language around climate change drives suspicion and deeper mistrust among those that see climate change as a low priority. Doubt of humans' role in global warming and skepticism created from crisis language are not favorable conditions for passenger rail initiatives, especially when rail projects are frequently campaigned on the pillar of being a sustainable travel option. The Sierra Club (2021) described passenger rail as “integral to our environmental goals” and stated that it “can help fight climate change.” The use of critical language such as “integral” and “fight” may trigger skepticism of this important environmental activist group and rail supporter. However, many other experts use light language to reference the sustainability of passenger rail, which may avoid skeptics. For instance, the Hill, a policy-based newspaper, describes passenger trains as a “potentially important tool in mitigating climate change” (Frazin, 2023). The Hill claimed rail had *potential* rather than speaking definitively. They noted rail could *mitigate* climate change, rather than solve it, which leaves more room for support.

Privatization of Rail

The widely held belief that private corporations are more efficient than public services creates disagreement and confusion around how Amtrak is run, causing it to lose support. While there is still one (and only one) private intercity railroad in the US, the national passenger railroad service was created by Congress as Amtrak in 1971 to alleviate the burden of passenger rail requirements on privately own rail corporations whose main interests had shifted to freight. Amtrak is a federally chartered corporation with the federal government as its majority

stakeholder. The Amtrak Board of Directors is appointed by the President of the U.S. and confirmed by the Senate. Amtrak is operated as a for-profit company, rather than a public authority. This puts Amtrak in a misunderstood space between public and private where it garners critique from both sides of the privatization debate. Those who view Amtrak more like a private firm take issue with Amtrak receiving federal funding (as discussed in the financial values section) and believe Amtrak shouldn't be able to regulate its own industry. Congress gave Amtrak and the Federal Railroad Administration joint authority to set standards and metrics for performance. The Association of American Railroads sued the DOT alleging that allowing a private entity to exercise authority in their own industry violated the Fifth Amendment and constitutional provisions regarding separation of powers (DOT v AAR, 2014). The outcome was the confirmation that Amtrak is NOT a private entity. Supreme court justice Kennedy explains that Amtrak is more like a public entity than a private firm since it was "created by the government, is controlled by the government, and operates for the government's benefit" (Barnes, 2014). Some people believe Amtrak should be a private entity, even if private rail was unsuccessful prior to 1970. The push for privatization is largely fueled by the belief that private corporations are more efficient. Two-thirds of Americans think private sector employees work harder than public employees (Katz, 2013) despite research finding no conclusive evidence that one model of ownership is intrinsically more efficient than the others (UNDP, 2015). One privatization proponent says, "It's Time to Sell Amtrak to Elon Musk" (Segan, 2015). Another argument is that privatization creates an opening for competition. GOP representative John Mica calls Amtrak a "monopoly" and refers to its odd public/private status as a "soviet-style operation" (Jaffe & Diamond, 2015). Mica sponsors efforts to cut Amtrak funding.

Conclusion

With the complex nature of transportation systems, ideologies become intertwined, and passenger rail flounders. These findings suggest that policy intervention or infrastructure enhancements alone will not increase the presence of passenger rail. Rather, the US needs an instigator to mobilize widespread social change to create a culture accepting of rail systems. Looking to success stories of individual towns within the US or learning from entire nations who have successfully shifted to sustainable mobility will prove useful, but only if culture and ideology are considered alongside technical and policy innovation.

References

- Antiplanner. (2021). 2019 passenger costs and subsidies.
- Amtrak (2022). Monthly performance report: YTD September FY 2022.
- Barnes, R. (2014). Supreme Court says Amtrak is more like a public entity than a private firm. *The Washington Post*
- Bureau of Transportation Statistics (2019). Average Passenger Revenue Per Passenger Mile, *National Transportation Statistics*, Table 3-20
- Bressler, R.D. (2021). The mortality cost of carbon. *Nat Commum* 12, 4467
- Delouya, S. (2023). Why doesn't the US have more passenger trains? *CNN Business*
- Dey Chaudhury, P. (2003) Rail and Road in Intercity Transport: Energy and Environmental Impact. *Economic and political weekly* 38, 4423-4425.
- DOT v AAR (2014). U.S. Department of Transportation v. Association of American Railroads. *U.S. District Court for the District of Columbia*
- FHWA (2014). Federal Highway Administration, Highway Statistics 2012, Table HF-10, <https://www.fhwa.dot.gov/policyinformation/statistics/2012/pdf/hf10.pdf>
- Ford Motor Company. (2023). Ford® - New Hybrid & Electric Vehicles, SUVs, crossovers, trucks, Vans & Cars. *Ford Motor Company*.

- Frazin, R. (2023). Passenger trains could help combat climate change — if rail can actually get built. *The Hill*.
- General Motors. (2023). 2023 Chevrolet Silverado 1500: Pickup truck. *Chevrolet*.
<https://www.chevrolet.com/trucks/previous-year/silverado/1500>
- Henderson, J. (2013). Street fight: The politics of mobility in San Francisco. *University of Massachusetts Press*.
- Hodges, T. (2010). Public Transportation's Role in Responding to Climate Change. *Federal Transit Administration, U.S. Department of Transportation*.
- Howe, P. D., Mildenerger, M., Marlon, J., & Leiserowitz, A. (2015). Geographic variation in opinions on climate change at state and local scales in the USA. *Nature Climate Change*
- H.R. 4820 (2023, July 11) Fiscal Year 2024 Transportation, Housing and Urban Development, and Related Agencies Appropriations Bill. *118th Congress*
- IAEA (2014) International Atomic Energy Agency. Getting to the Core of Environmental Remediation.
- Jaffe, E. (2015) The Complete Business Case for Converting Street Parking Into Bike Lanes. *Bloomberg*.
- Jaffe, A. & Diamond, J. (2015). GOP Rep. John Mica: Amtrak 'Soviet-style Operation'. *CNN politics*
- Kent, N.B. (1982), The Evolution of the Highway-User Charge Principle, *Federal Highway Administration*. <https://rosap.ntl.bts.gov/view/dot/66593>
- Klein, N.J., Ralph, K., Thigpen, C., & Brown, A. (2022) Political Partisanship and Transportation Reform, *Journal of the American Planning Association*, 88:2, 163-178
- Koester, M. (2014). How Train Travel Explains the Decline of American Culture. *Vice*.
- Lim, J. Y., & Moon, K.-K. (2022). The Implications of Political Trust for Supporting Public Transport. *Journal of Social Policy*, 51(1), 77–95
- Marlon, Wang, Bergquist, Howe, Leiserowitz, Maibach, Mildenerger, and Rosenthal. (2022) Change in US state-level public opinion about climate change: 2008–2020. *Environmental Research Letters* 17, no. 12. 124046.
- Miller, C.A. (2021) Savings in per-passenger CO2 emissions using rail rather than air travel in the northeastern U.S.. *Journal of the Air & Waste Management Association* 71:12, 1458-1471

- Nall, C. (2018). The road to inequality: How the federal highway program polarized America and undermined cities. *Cambridge University Press*
- Nixon, H., & Agrawal, A. W. (2019). Would Americans pay more in taxes for better transportation? Answers from seven years of national survey data. *Transportation*, 46 (3), 819–840
- O’Brien, C. (2014, December 4). Clayton county gives MARTA input on first bus routes. *Clayton News-Daily.Com*. https://www.news-daily.com/news/clayton-county-gives-marta-input-on-first-bus-routes/article_e9d3ec8-b8cf-512d-908f-0cf73367c775.html.
- Pouryousef, Hamed & Lautala, Pasi & White, Thomas. (2013). Review of Capacity Measurement Methodologies: Similarities and Differences in U.S. and European Railroads.
- Pew Research Center (2022). Most say their country will be better off if it is open to change, *Spring 2022 Attitudes Survey. Q4*.
- Pew Research Center (2014). Political polarization in the American Public
- Pew Research Center (2023). How American View Future Harms From Climate Change in Their Community and Around the US
- Pritchett, J. (2019, September 4). Guest view: Taxpayers shouldn’t have to pay for passenger trains we aren’t using. *Meridian Star*.
- RPA (2023, July 12). Rail Passengers Association. Statement on house’s proposed cuts to Amtrak budget FY24.
- Ray, Fleming, Higashide, Mangan, Lample, Lillehei, Noisecat, McElwee, & Cohen. (2020). Voters want a better transit system for America. *Data for Progress*
- SCSC (2011). Sacramento County Superior Court. Town of Atherton v California High Speed Rail Authority. No 34-2008- 80000022.
- Segan, S. (2015). It’s Time to Sell Amtrak to Elon Musk. *PCMag*
- Shapero, J. (2023). Conservative group pushes back on bipartisan rail safety bill. *The Hill*.
- Sierra Club (2021). How passenger rail is integral to our environmental goals and can help fight climate change. *Sierra Club Washington State*
- Stromberg, J. (2015). The real reason American public transportation is such a disaster. *Vox*.
- Transportation for America (2010) Future of Transportation National Survey. *Public Opinion Strategies and Fairbank, Maslin, Maullin, Metz and Associates*.

- Trapenberg Frick, K., Weinzimmer, D., & Waddell, P. (2015). The politics of sustainable development opposition: State legislative efforts to stop the United Nation's Agenda 21 in the United States. *Urban Studies*, 52 (2), 209–232.
- UNDP (2015). United Nations Development Program. Is the Private Sector More Efficient? *Global Center for Public Service Excellence*.
- Volker, J., & Handy, S. (2023). Increasing Highway Capacity Induces More Auto Travel. *UC Davis: National Center for Sustainable Transportation*.
- White House. (2021, August 9). Updated fact sheet: Bipartisan Infrastructure Investment and Jobs Act. *The White House*.
- Will, G. (2011) Why Liberals Love Trains. *Newsweek*.
- Williams, T. (2011, February 16). Florida's governor rejects high-speed rail line, fearing cost to taxpayers. *The New York Times*.
- World Bank (2022). GDP (current US\$), *World Bank national accounts data and OECD National Accounts data files*
- Zaller, J. R. (1992). The nature and origins of mass opinion. *Cambridge University Press*.
- DAC (2023, July 17) Democrats Appropriations Committee. ICYMI: Stakeholders and Organizations Express Safety and Economic Concerns with the House Republicans' Transportation Funding Plans (Press Release)