COVID-19 AND SOARING COSTS ARE NEW CHALLENGES FOR TEXAS HIGH SPEED RAIL LINE

by Baruch Feigenbaum

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**TABLE OF CONTENTS**

| PART 1      | INTRODUCTION: TRAVEL IN THE CONTEXT OF COVID-19                      | 1 |
| PART 2      | PUBLIC FUNDING                                                      | 5 |
| PART 3      | RIDERSHIP NUMBERS                                                   | 8 |
| PART 4      | TAXPAYER COSTS                                                      | 11|
| PART 5      | “SHOVEL READY”                                                      | 13|
| PART 6      | BETTER ALTERNATIVES                                                | 17|
| PART 7      | CONCLUSION                                                          | 19|
| ABOUT THE AUTHOR                                  | 20|
INTRODUCTION: TRAVEL IN THE CONTEXT OF COVID-19

For more than 30 years, public and private entities have been trying to build high speed rail (HSR) in Texas. In 2014, Texas Central proposed building a 240-mile high speed rail line between Dallas and Houston with speeds of 180 miles per hour or higher. For years, Texas Central promoted its HSR as a privately financed project that would not require any public funding. While this made Texas Central’s proposal initially seem attractive, over time most experts believed the project would need significant subsidies due to its very high ridership projections and underestimated costs.

Covid-19 has resulted in new complications for Texas Central’s HSR line. The global pandemic has reduced the popularity of long-distance travel. The fear of contracting the virus combined with decreased economic activity has led to unprecedented declines in passenger traffic. At Covid’s peak, the number of Americans flying decreased by 95%;\(^1\)

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roadway traffic volumes declined by 60%. Many private bus lines also suspended operations.

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As Texas reopens, travel will recover to an extent. However, most experts don’t expect passenger travel volumes to return to pre-Covid-19 levels over the short term. Aviation experts expect it will take four or more years for demand to match pre-Covid levels. Airbus, one of the two large plane manufacturers, believes it will take five years for traffic to return to normal.

There are several reasons for this expected slow recovery. First, Covid-19 has severely damaged the economy to an extent still not fully known. More than 30 million Americans lost their jobs between mid-March and late April 2020, leading to an unemployment rate over 10%. In past recessions, long-distance travel declined because businesses reduced expenses and Americans took fewer vacations due to a decline in disposable income. While these prior travel declines were due solely to economic reasons, the present travel declines stem not only from a depressed economy, but also from fear of contracting Covid-19.

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3 Slotnick, David. “Airline analysts and executives predict it will take up to 5 years for the industry to recover, but airlines as big as American may not survive. Read their bleak forecasts here.” Business Insider. 30 April 2020. Web.


Texas Central’s Dallas to Houston line is not expected to be operational until 2026, after the threat from Covid has subsided. However, several of the Covid-19-related changes may become permanent.

Amtrak is disinfecting all trains and stations throughout the day. Airlines are using electrostatic spraying to sanitize the entire airplane before each flight. Many airlines have committed to this standard for the long-term, increasing their costs. Potential customers will expect high speed rail lines to provide the same service. Additionally, food service options are expected to change. For the short term, both Amtrak and airlines have ended traditional food service. When food service resumes, the costs to provide it will increase due to new cleaning, handling, and cooking policies. Customers will expect Texas Central to make this change as well.

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Further, many experts believe the changes to long-distance travel are permanent. Some in-person business trips will be replaced by Zoom webinars. Some families will vacation by car near their homes. These changes will depress ridership demand for high speed rail. Given Texas Central’s soaring construction costs, any loss in ridership reduces the project’s viability.

Although some advocates are encouraging stimulus funds for transportation projects, transportation is a poor match for stimulus spending. Mega-projects, such as Texas Central’s HSR, require planning, years of environmental reviews and legal challenges, regulatory approvals, and other pre-construction preparation activities (such as moving

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utilities). All of these time-consuming tasks must be accomplished and overcome before construction can begin. With respect to Texas Central, its estimated service date has already suffered years of delay and appears to be headed toward many more. Currently, Texas Central estimates its HSR will commence passenger service in 2026.

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Instead of spending stimulus funds on risky, nonviable transportation mega-projects, maintenance presents a larger, more immediate need. For instance, much of Texas’ roadway network needs rebuilding and repaving. Airports need to be modernized. And the conditions of rail transit lines need improvement. Existing revenue sources, including gas and sales taxes, can fund some of these improvements. However, any supplemental transportation funding should focus on state-of-good-repair improvements.
PUBLIC FUNDING

Both 2019 and 2020 were rough years for Texas Central. In March 2020, the company laid off 28 employees because it was unable to pay them.9 CEO Carlos Aguilar acknowledged Texas Central is facing delays and financing woes due to Covid-19. In truth, Texas Central was in financial peril long before the virus emerged.

In 2016, Texas Central claimed its HSR would cost “over $10 billion.”10 In a 2017 study, this writer projected costs at over $20 billion.11 Today, due to underestimated land acquisition and environmental costs, among other complications, the project is estimated to cost $30 billion.12 In a recent letter from its Chairman, Texas Central acknowledged its HSR “[H]as turned into a $30 billion project and we have certainly hit a snag with all the difficulties of the Corona Virus.”13 CEO Aguilar confirmed the $30 billion figure was “a conservative

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estimate of ‘all in’ numbers.”\textsuperscript{14} Yet, Texas Central continues to represent on its website that its HSR will cost “more than $12 billion to construct.”\textsuperscript{15}

As costs continue to rise, Texas Central’s vision of a privately financed project has come to an end. As of late 2019, Texas Central had secured only $450 million in private financing.\textsuperscript{16} This figure accounts for merely 1.5% of the project’s estimated costs, which continue to rise. In addition, $300 million of the $450 million is a loan from the Japan Bank for International Cooperation, indicating Texas Central has had hardly any success raising capital from other investors.\textsuperscript{17}

\begin{quote}
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\end{quote}

With Texas Central’s financial woes continuing to mount, the company has finally conceded the project will not be privately financed. The company eliminated the “private financing” language from its website. Its chairman recently admitted Texas Central intends to rely on government funding “we hope to receive from President Trump’s infrastructure stimulus through the Department of Transportation.”\textsuperscript{18} CEO Aguilar confirmed the project “could require some stimulus money, but we don’t know yet.”\textsuperscript{19} These public funds are in addition to the substantial RRIF loan Texas Central has already admitted it will “aggressively” pursue (detailed in Part 4).\textsuperscript{20}

\textsuperscript{14} Ibid.
\textsuperscript{19} Ibid.
If Texas Central’s HSR requires public funding, it will merely transfer funds from medium- or low-income drivers to upper-income high speed rail travelers. This reverse robinhood wealth transfer is poor public policy, especially in these chaotic times. Moreover, to travel between the major metro areas of Dallas and Houston, Texas travelers can choose a fast travel option (airplanes), a customized, low-cost travel option (automobiles), or another low-cost travel option (intercity or private buses). So, the question remains: If Texas Central’s HSR is not viable with private financing and does not substantially improve mobility, why should it be built?
RIDERSHIP NUMBERS

Even before Covid-19, this author and many other infrastructure experts had serious concerns about the financial viability of the proposed Dallas to Houston line. From the beginning, Texas Central has overstated HSR ridership demand. A 2013 Texas Department of Transportation (TxDOT) study forecasted demand at 0.7-2.7 million annual passengers by 2035.21 Yet, Texas Central initially estimated five million passengers by 2026.22 This inflated estimate was based on a low ticket price ($50), high price of a competing travel mode (aviation), high rate of induced travelers (those who would not have made the trip but for Texas Central’s HSR), higher train speeds (over 200 mph) than practical, and a higher diversion rate from passenger vehicles to high speed rail than seen anywhere in the world.

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Texas Central’s induced traveler numbers and diversion rates were inflated significantly. For example, Texas Central claimed 99% of the automobile commuters traveling directly between Dallas and Houston would switch to high speed rail. In the Environmental Impact Statement (EIS), Texas Central uses a 30% diversion rate, but only because Texas Central did not exclude travelers with an origin/destination other than Dallas and Houston.

Texas Central developed its methodology using a stated preference survey, which is the weakest analytical method in predicting traveler’s patterns. Stated preference surveys are notoriously unreliable. Since people are not the best judge of their future transportation choices, transportation engineers conduct more-detailed modeling before construction of a roadway or rail line. There’s another problem with stated preference surveys: even when people know their travel patterns, they are not always honest in surveys. Studies of carpooling (two or more people sharing a ride from home to work) show that commuters routinely overstate the amount that they carpool, because it is considered a societal good (carpooling reduces congestion and greenhouse gas emissions).

“Recently, Texas Central increased its ridership numbers yet again, to over six million annual passengers by 2029. Given the impacts of the Covid-19 crisis and the fact that Texas Central has not commissioned any new ridership study, the basis for this recent uptick in ridership is unknown. In reality, Covid-19 is expected to depress demand further.”

Recently, Texas Central increased its ridership numbers yet again, to over six million annual passengers by 2029. Given the impacts of the Covid-19 crisis and the fact that Texas Central has not commissioned any new ridership study, the basis for this recent uptick in ridership is unknown.

23 Feigenbaum. Texas High Speed Rail: Caution Ahead.
In reality, Covid-19 is expected to depress demand further. And, while both business and vacation travel will be depressed for years to come, business travelers comprise the largest share of high speed rail riders. Thus, any decline in travel would further reduce the viability of Texas Central’s HSR. Businesses forced to experiment with online meeting tools (such as Zoom) have found the tools useful and cost-effective. As a result, at least some businesses are likely to continue relying on these online tools to reduce travel to save money.

As this writer detailed in previous studies, Texas Central’s ridership projections were not grounded in reality. Its new ridership projection of six million passengers is a fantasy. With private financing, Texas Central’s HSR may have been viable, under the best of circumstances, at a cost of $10 billion. At $20 billion, it is not viable. At more than $30 billion, the project would need a minimum of $15 billion in taxpayer subsidies just to be completed, burdening taxpayers for decades.

26 Feigenbaum. Texas High Speed Rail: Caution Ahead.
TAXPAYER COSTS

This author supports private high speed rail in areas where it may be feasible, such as the Northeast Corridor from Boston to New York City to Washington, D.C. However, constructing a “private” line that needs large taxpayer subsidies is not true private rail. And, Texas Central's HSR has other financial and non-financial costs to agencies and taxpayers.

First, the Federal Railroad Administration (FRA) and TxDOT must devote staff time to reviewing the capital plan, conducting an environmental review, and defending legal challenges. While this may be a good use of resources for a viable project, it is a waste of the government’s already limited resources for a project like Texas Central’s.

Second, Texas Central has stated it will pursue a Railroad Rehabilitation and Improvement Financing (RRIF) loan. Originally designed for short line freight railroads, the RRIF program has been underused. As a result, in 2013 Congress expanded eligibility to passenger rail lines. Unfortunately, RRIF has very few taxpayer protections to prevent risky, speculative projects, such as Texas Central’s HSR. In truth, this “loan” program is more of a “grant” program. RRIF has already provided funds to Amtrak, which could only be repaid by Congress greatly increasing Amtrak subsidies. (RRIF requires neither collateral or an

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investment-grade rating on a recipient’s financing plan, and could be used to finance up to 100% of a project’s cost.) Finance experts are concerned that an RRIF loan, in the amount of $20 billion or more, could serve as the primary or sole source of funding for Texas Central’s HSR. As detailed earlier in this brief, Texas Central would almost certainly default, creating a burden for taxpayers for decades.

Third, Texas Central has also an expressed interest in Covid-19-related stimulus funding. Democrats in the House have floated an infrastructure stimulus, which includes high speed rail projects, and many in the industry are lobbying for funding. A stimulus for transportation is poor, ineffective policy because transportation projects are constructed over multiple years and don’t provide short-term economic benefits. Additionally, and as previously stated, funding for a project that is not viable is a waste of taxpayer resources.

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29 Hoofper. “Texas Central’s high speed rail project ‘could require some stimulus money,’ CEO says.”
“SHOVEL-READY”

“Shovel-ready” was a term associated with the 2009 American Recovery and Reinvestment Act (ARRA) when the Obama administration dispersed stimulus funds for roadway and transit projects. Recently, Texas Central CEO Carlos Aguilar told the *Dallas Morning News* that “the project is shovel-ready.”\(^{31}\) There is concern that Texas Central keeps making this claim (that its HSR is “shovel-ready”) in an attempt to use the Covid-19 crisis to position itself for potential transportation stimulus funding. In any event, Texas Central has numerous hurdles to overcome before it can be considered truly shovel-ready.

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First, Texas Central doesn’t have the money it needs to construct the Dallas to Houston HSR line, nor does it have the ability to raise it. The $450 million in available financing, which took over five years to secure, represents merely 1.5% of the project’s cost. CEO Aguilar acknowledged Texas Central’s ability to move forward, “[W]ill be contingent upon financial entities in the United States, Europe and Japan—all of which are dealing with urgent priorities generated by Covid-19.”

Second, the legal battle over Texas Central’s eminent domain authority is ongoing. In 2019, a Texas trial court declared that, under Texas law, Texas Central is not a railroad or an interurban electric railway with eminent domain powers. The trial court judgment was reversed on appeal. However, the eminent domain issue is now on its way to the Texas Supreme Court. In all likelihood, there will be no final determination until 2021 at the earliest. Until a final determination is made in Texas Central’s favor, it cannot condemn the private property needed to construct high speed rail.

Third, Texas Central does not have authority to construct from any federal or state agency. Because Texas Central would operate in one state only, the power to authorize construction rests with Texas. And it appears unlikely Texas will grant construction approval to Texas Central in the near future. In 2017, the state of Texas enacted legislation prohibiting any state funds from being used to pay for planning, construction or maintenance, security, promotion, or operation of Texas Central’s project. Hoping for a different outcome at the federal level, Texas Central sought permission from the federal Surface Transportation Board (STB), which authorizes and oversees the construction of new interstate railroads. But the STB denied jurisdiction over Texas Central’s HSR since it is not an interstate project. In 2018, Texas Central sought permission from the STB a second time. Although the STB has not made a decision, legal experts expect it to deny Texas Central’s petition to reopen.

34 Texas Transportation Code § 199.003.
Fourth, Texas Central does not have approval to operate high speed rail because its proposed Shinkansen trainsets do not meet existing federal safety and crashworthiness standards. As a result, Texas Central submitted a petition to the Federal Railroad Administration (FRA) for a Rule of Particular Applicability (RPA), which was granted. However, the Rule means that the FRA has begun the process of developing safety and crashworthiness requirements for this *particular* train equipment being “applicable” only to this *particular* set of tracks. When the FRA completes its study, it will either grant or deny the RPA. Texas Central will only be allowed to use the Shinkansen equipment if the FRA grants the RPA, which will be a multi-year process.

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Fifth, Texas Central has encountered significant public opposition, especially now that it has admitted its more than $30 billion project will not be privately financed. Thousands of impacted landholders are adamantly opposed to the project. Representative Kevin Brady, ranking member of the U.S. House Ways and Means Committee, as well as multiple members of the Texas Legislature, have written U.S. Secretary of Transportation Elaine Chao and Texas Governor Greg Abbott in opposition to the project. Coverage in the *Dallas Morning News* and on local television stations and newspapers has grown more negative over the past two years. While the opposition is a subset of the overall population, reporters, political leaders, and landowners can help sway public opinion. By detailing the problems with the HSR, they can counter Texas Central’s sophisticated public relations campaign.
Finally, Texas Central has made little progress in other areas. It has acquired less than 30% of the parcels needed for the rail line.\textsuperscript{36} But since most of the acquired parcels are small tracts of land, Texas Central has less than 25% of the needed right of way. Many of the landowners in the path of the train are reluctant to sell their land at any price. Environmental reviews are ongoing, and will be time consuming: the median length is 3.6 years.\textsuperscript{37} But even when they are finished, protracted federal court litigation is likely.


BETTER ALTERNATIVES

Covid-19 has forced transportation agencies to rethink their long-term capital plans. And while travel will resume, people's travel patterns may change over the long-term. The biggest change involves working from home. A recent study of the London metro area indicated that 60% of those employees could work from home.\(^{38}\) While this percentage may be somewhat lower in Dallas and Houston, research indicates that the work-from-home share could double in both regions.\(^{39}\)

These trends are likely to decrease rail ridership for two reasons. First, employers will discover that technology can substitute for in-person meetings. Conducting meetings on Zoom and other virtual meeting platforms is easier and cheaper than in-person events. This change will reduce the number of business travelers taking high speed rail. Second, most employees in Dallas and Houston live in suburban areas far from the respective proposed high speed rail stations. Across the world, high speed rail is used mostly by employees living and working in downtown areas.\(^{40}\) Even a 5% increase in work-from-home employees will have a major negative effect on the financial viability of Texas Central’s HSR line.

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With the decrease in travel, transportation resources should be focused on maintenance, operations, and state of good repair. Transit agencies are shifting funding from new capital projects to rail and bus operations. With lighter traffic volumes, state DOTs have accelerated roadway repaving projects. Some DOTs are even considering delaying new roadway expansions.

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Given the decrease in long-distance travel over the short to medium term, it is cheaper and more cost-effective to improve aviation and highways than add an additional, unnecessary travel mode between Dallas and Houston. Commercial airlines offer more than 50 flights per day between the two cities. Although most of that service runs on 737s and regional jets seating fewer than 160 people, the airlines can upgauge (increase the size of) aircraft to planes that seat between 160 and 200 people if demand increases.

Average annual traffic volumes on Interstate 45, the main highway between Houston and Dallas, are less than 30,000 vehicles in rural areas. If traffic volumes climb considerably, TxDOT could add one new lane in each direction for approximately $8 million per lane-mile. This would cost approximately $2 billion for the length of the corridor, 15 times cheaper than the current cost of Texas Central’s HSR. And the capacity would be paid 100% by the users (drivers) without subsidies needed from other taxpayers.

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43 American Airlines, Southwest Airlines, United Airlines websites July 2020.
CONCLUSION

Texas Central’s dream of a privately financed HSR has been a nightmare for many Texans. Costs have already tripled to $30 billion. Likewise, inflated ridership projections have increased to more than six million per year. Meanwhile, Texas Central has secured only $450 million of the more than $30 billion needed to build the project, while recently laying off nearly 30 employees. Given its financial challenges, Texas Central will have to rely on stimulus funding or a multi-billion dollar RRIF loan that lacks taxpayer protections. Combined with land acquisition, environmental permitting, and other regulatory obstacles, Texas Central’s financial woes have pushed the expected start of passenger service to 2026 at the earliest. In the meantime, changes caused by Covid-19 are expected to decrease business travel and demand for new travel modes even further.

Absent significant, near-term financial support from the private sector, Texas Central should end its project. If Texas Central chooses to march onward, lawmakers and taxpayers must ensure it does not receive stimulus funding or an RRIF loan. Finally, lawmakers, taxpayers, and any federal or state agencies involved with the project are encouraged to heed the wisdom of infrastructure experts who have examined the project’s financial feasibility, instead of blindly adopting the unsupported assertions of Texas Central and its sophisticated public relations team. If they do not, a repeat of the ongoing high speed rail fiasco in California is almost certain to occur.
ABOUT THE AUTHOR

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Prior to joining Reason, Feigenbaum handled transportation issues on Capitol Hill for Representative Lynn Westmoreland. He earned his master’s degree in transportation planning from the Georgia Institute of Technology.