

Reform Infrastructure Policy First, and Limit Corporate Welfare

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**Brian Riedl
Senior Fellow in Budget, Tax, & Economic Policy
The Manhattan Institute for Policy Research**

Good morning Chairwoman Waters, Ranking Member McHenry, and Members of the Committee. Thank you for inviting me to participate in today's hearing.

My name is Brian Riedl. I am a Senior Fellow in Budget, Tax, & Economic Policy at the Manhattan Institute for Policy Research. The views I express in this testimony are my own, and should not be construed as representing any official position of The Manhattan Institute.

My testimony today will critique President Biden's American Jobs Plan proposal with four main points:¹

- 1) The \$2.6 trillion cost – what would be the most expensive non-emergency law in half of a century – is fiscally irresponsible given America's daunting federal budget outlook.
- 2) America's main infrastructure policy challenge is not funding, but rather the slow, bureaucratic, high-cost implementation of the policies. Spending another \$1 trillion without making these programs more effective is a poor use of taxpayer dollars.
- 3) Despite the title of "American *Jobs* Plan," there is a broad economic consensus that infrastructure policies do not provide short-term stimulus, and most new construction jobs are redistributed from other jobs.
- 4) The American Jobs Plan includes a historic expansion of corporate grants, loans, and contracts with little-to-no Congressional oversight. Federal micromanagement of innovation and research is the wrong approach.

The Daunting Federal Budget Outlook

First, we must address the sheer enormity of the President's proposal in the context of Washington's deteriorating fiscal outlook. The cost of the American Jobs Plan – \$2.6 trillion over 8 years, an average of 1.25 percent of GDP – would represent the most expensive non-emergency spending bill in at least 50 years.² And it follows Washington enacting \$5.4 trillion in (mostly-necessary) pandemic spending over the past 12 months – a total that comprises one-fifth of the entire national debt.

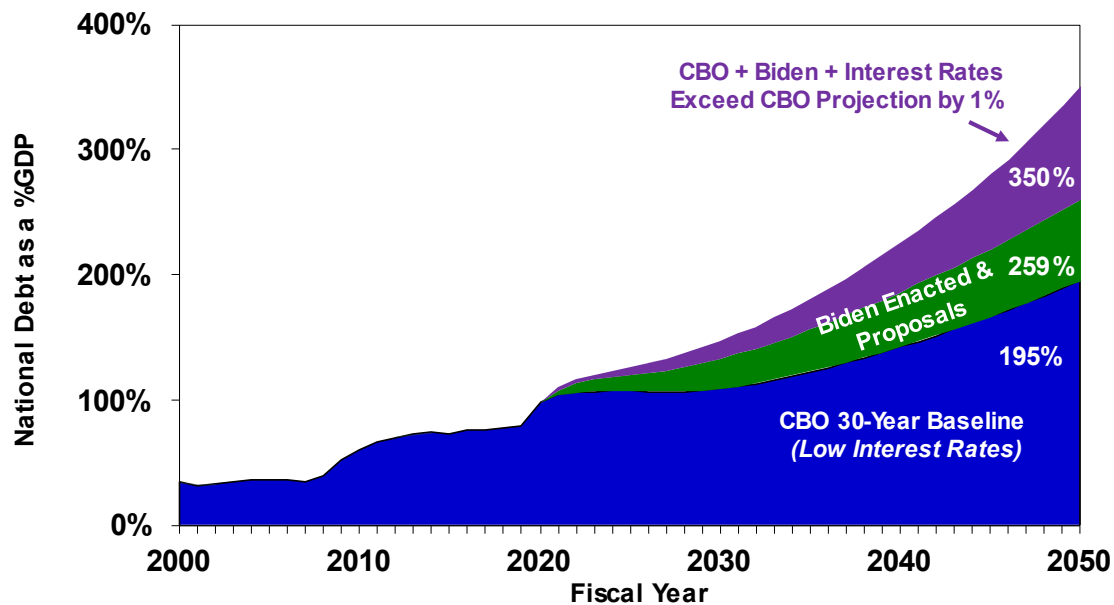
The underlying fiscal outlook is unsustainable. The national debt held by the public is already projected to double from \$17 trillion to \$35 trillion between the end of 2019 and 2030.³ If President Biden's entire campaign agenda is enacted, it would mean the national debt rising from \$17 trillion to \$42 trillion over that period.⁴ This would leave the national debt at 130 percent of GDP, or one-quarter higher than at the end of World War II.

And it only gets worse thereafter. The Congressional Budget Office projects that – due overwhelmingly to escalating Social Security and Medicare shortfalls – Washington will run \$100 trillion in baseline budget deficits over the next 30 years. This would leave the national debt at nearly 200 percent of GDP. At the end of that period, government interest payments will consume half of all tax revenues.⁵

That is the *rosy* scenario that assumes no new legislation is enacted, the 2017 tax cuts expire, no new recessions, and low interest rates. If interest rates exceed the CBO baseline assumption by even one percentage point, it would add \$30 trillion in interest costs over three decades. Deficits would reach 18 percent of GDP, the debt would hit 264 percent of GDP, and two-thirds of all tax revenues would merely pay the interest on the debt.⁶

That is simply the CBO baseline, with interest rates rising by an additional percentage point.

National Debt Projected to Leap to 200% to 350% of GDP, Depending on Biden Proposals & Interest Rates



Source: 2020 CBO LongTerm Baseline and author calculations of Biden proposal costs.
CBO baseline assumes average interest rate paid on national debt gradually rises to 4.4% over 30 years.

And that is why it is shortsighted to assert that low interest rates make this the right time to borrow. Washington is behaving like a subprime homeowner and making long-term debt commitments based on short-term interest rates. The average maturity of the U.S. debt is five years and declining, which means most of the national debt would quickly roll over into any future interest rate increase.

In short, the federal government is essentially gambling our fiscal future on the hope that interest rates never again exceed four percent. Because if they do, simple math shows that combining rising interest rates with a debt approaching 200 or 300 percent of GDP risks a catastrophic debt crisis.

In that context, Washington should focus on paying for our current escalating commitments before undertaking the most expensive non-emergency spending bill in half a century.

Some suggest that fully financing this infrastructure bill with new taxes would make it fiscally responsible. That is not the case. If a family facing a \$100,000 credit card debt suddenly finds a \$20,000 windfall, spending it all on expensive new furniture would not be a responsible use of that money simply because it is “fully paid for” by the windfall. Similarly, there is a limited universe of plausible tax increases on families and businesses.⁷

Table 1
Leading Progressive Tax Proposals Cannot Even Finance Washington’s
Current Spending Promises, Much Less Any New Programs

Progressive Tax Proposal & 10-Year Savings (\$Billions)	
\$1,750	Biden Business Tax Proposals - Infrastructure Proposal
455	Repeal Entire TCJA, Including Low-Income Provisions
189	Impose 70% Tax Rate for Income over \$10 Million
224	Cap Deductions at 28% Value Above \$400k AGI
2,180	Eliminate Wage Cap for 12.4% Social Security Tax (No Credit for Benefits)
2,000	Tax Capital Gains as Ordinary Income plus Implement Mark-to-Market
1,000	Aggressively Reduce Domestic Corporate Tax Preferences
752	Financial Transactions Tax of 0.1%
103	"Bank Tax" of 0.15% on Large Financial Institutions
2,263	Sanders 8% Wealth Tax
383	Sanders Estate Tax Rate as High as 77%
1,033	Carbon Tax at \$25/Metric Ton - No Rebate for Low-Income Households
12,331	Total Tax Increases (4.6% of GDP)

Sources: CBO, Tax Policy Center, Tax Foundation, Social Security Administration, and Committee For a Responsible Federal Budget. Net interest savings would approximately offset lost revenue from interactive effects.

Enacting all of these taxes would not even close the current 10-year projected budget deficit of \$14.3 trillion, much less finance the President’s new spending proposals.⁸ And even if they did, the escalating spending levels projected by CBO would re-open large budget deficits in the 2030s and 2040s.

In short, it will take aggressive tax increases – or drastic and painful spending cuts – just to finance Washington’s current commitments. Applying the easiest \$2 trillion in taxes to a historic spending expansion simply leaves fewer options to close the remaining deficits. The only people left to pay the remaining taxes will be the middle class.

And we still have not even got to the forthcoming release of the “human infrastructure” portion of the that is expected to push the total price tag as high as \$4 trillion.⁹

Large spending increases create the difficult financing choice between using up our limited plausible tax increases, and going deeper into debt. The American Jobs Plan includes approximately \$1.8 trillion in new corporate taxes that dwarf the \$300 billion in net corporate tax cuts (over ten years) enacted in the 2017 Tax Cuts and Jobs Act. That law reduced the corporate tax rate from 35 percent to 21 percent, but offset most of those savings by curtailing key business tax preferences. The president would raise the corporate rate back to 28 percent (33 percent including state taxes) – restoring America to the highest rate in the OECD – while also raising international taxes and retaining the lost 2017 tax deductions. Moreover, the president would severely weaken the 2017 tax reforms that finally gave U.S. multinational corporations a more level playing field when competing internationally. Now, once again, American companies abroad may face higher tax rates than our global competitors.

Additionally, the Tax Foundation estimates that:

“An increase in the federal corporate tax rate to 28 percent would raise the U.S. federal-state combined tax rate to 32.34 percent, highest in the OECD and among Group of Seven (G7) countries, harming U.S. economic competitiveness and increasing the cost of investment in America. We estimate that this would reduce long-run economic output by 0.8 percent, eliminate 159,000 jobs, and reduce wages by 0.7 percent. Workers across the income scale would bear much of the tax increase. For example, the bottom 20 percent of earners would on average see a 1.45 percent drop in after-tax income in the long run.”¹⁰

Infrastructure: Throwing \$1 Trillion at an Unreformed, Broken System

Our infrastructure can certainly use some upgrades, particularly its roads and electrical grid. That said, the crumbling state of American infrastructure has been overstated. A 2019 report of the World Economic Forum ranked the United States' infrastructure first among the 10 geographically largest countries (i.e., the countries that likely have the most extensive infrastructure needs).¹¹

Similarly, last year a Congressional Research Service report titled “*The Condition of Highway Bridges Continues to Improve*” noted that “the number and share of bridges in poor condition have dropped significantly over the past 20 years. Furthermore, repairing every deficient bridge in just a few years is unrealistic, and not every bridge repair is likely to be justified when considering both the economic benefits and costs. FHWA's own analysis of bridge data suggests a relatively modest increase in spending could substantially reduce or eliminate the backlog of economically justifiable investments if sustained over a 20-year period.”¹²

Spending levels remain healthy. Transportation infrastructure spending (adjusted for inflation) rose from \$332 to \$371 billion between 2008 and 2018.¹³ Government spending on transportation and water infrastructure at all levels is 2.3 percent of the GDP (\$440 billion), just slightly below the 30-year average of 2.5 percent.¹⁴ That said, there has been a modest shift from capital spending to operations and maintenance. Spending on energy and the electrical grid continues to rise, although challenges remain.¹⁵

America's main infrastructure challenge is not spending levels, but rather its general ineffectiveness per dollar spent. In 2016, CBO released a report entitled “*The Macroeconomic and Budgetary Effects of Federal Investment*.” Economist Scott Hodge succinctly summarizes the reports three leading conclusions:¹⁶

1. “Federal investments deliver only half the economic returns as private sector investments, 5 percent versus 10 percent.
2. A dollar of federal spending results in only \$0.67 worth of actual investment because state, local, and private sector entities reduce their spending in response to the federal dollars.
3. Federal investment financed by debt or taxes could do more economic harm than good because federal borrowing and taxes crowd out private investment. To avoid harming the economy, federal investments should be financed by cuts in other discretionary programs.”

Diving deeper, America's transportation infrastructure is among the most expensive, bureaucratic, and slowly built in the world.¹⁷ Consider that:

- The cost of interstate construction spending per mile quadrupled from 1960 through 1990, and has continued to grow since then (adjusted for inflation).¹⁸
- Labor costs are higher in part because the Davis-Bacon Act, which mandates that those awarded government contracts pay a “prevailing wage,” raises wage costs by as much as 22 percent.¹⁹
- America requires many more workers to do the same construction work as Europe.²⁰
- Most U.S. construction projects are performed only during the workday, while much of Europe has round-the-clock shifts.²¹
- U.S. subway systems are by far the most expensive to build in the world, and in New York City cost quadruple the world average to build. The difference is high labor costs, poor contractor work, poor oversight, and defensive designs meant to avoid a cascade of stakeholder lawsuits related to environmental and historical artifact protection.²²
- Coordination between various local governments and stakeholders – while often necessary – brings endless delays and veto points, particularly for transportation projects.
- Nearly a century ago, the Empire State Building was built in 410 days. More recently, Boston's Big Dig took 25 years from planning to completion. Today, California's high-speed rail is expected to take nearly 40 years from planning to completion. Some delays are helpful – we want to ensure safety and environmental protection – but the U.S. has become a global outlier.

A major cause of delays are the necessary-but-slow Environmental Impact Statements and Historical Artifact Reviews. Consider that:

- Environmental reviews commonly exceed 1,000 pages and require on average seven years to complete (compared to no more than one to two years in Canada and 3.5 years in the European Union).²³
- Several environmental impact statements now take more than 17 years to complete – and no ground can be broken until the project has survived the legal process, including appeals by any litigant.²⁴
- In America – unlike many other countries – environmental and historical reviews can be challenged in court by a wide range of stakeholders, and these challenges can take years or even decades to be decided. Other countries use faster, non-judicial options to enforce these regulations, rather than expensive and time-consuming lawsuits that essentially become a project veto.²⁵
- Citing one particularly egregious example, columnist Megan McArdle notes that “The Southeastern High Speed Rail Corridor was proposed in 1992. You will be thrilled to learn that in September 2017, the Department of Transportation announced the completion of the project's Tier II Draft Environmental Impact Statement.”²⁶

President Biden’s physical infrastructure component throws \$1 trillion at this broken system. In fact, it would raise costs further by tightening higher-wage requirements and imposing stricter “Buy America” requirements that limit trade and lower-cost options. And it allocates more funding to transit and high-speed rail (\$165 billion) than highways, roads, and bridges (\$115 billion) despite the surging costs²⁷ and declining public interest²⁸ in the former.

There is certainly a case for increasing infrastructure investment. But any new funding should be accompanied by reforms to spend that money more effectively.

The \$213 billion proposal to build, rehabilitate, and retrofit millions of homes is expensive and vaguely defined. While public housing should obviously not be left in disrepair, lawmakers should focus more on housing vouchers that provide low-income families with more options to escape public housing if they so choose. Thus, building more private housing and addressing zoning restrictions would be more helpful. That said, local communities must play a lead role. Additionally, the proposal to “build, preserve, and retrofit homes” is vaguely defined, and it is unclear if tax credits will be sufficient to bring such expensive projects – especially given the push for more expensive unionized workers in an industry that is only 13 percent unionized.²⁹

A more effective infrastructure initiative would not require such extreme federal micromanagement – or as much new funding. State and local governments are sitting on \$350 billion in recent stimulus grants to close budget deficits that in many states no longer exist.³⁰ Infrastructure investment would be a perfect use of this one-time cash infusion. Additionally, The President’s call for \$50 billion in direct funding for public school building upgrades and construction is not necessary when states are flush with \$180 billion in K-12 capital grants from earlier stimulus bills.³¹

Historic Expansion of Corporate Welfare – With Seemingly No Congressional Oversight

Yet only half of this proposal is truly about infrastructure. The largest single proposal is \$400 billion for long-term care for the elderly and disabled. The rest of the American Jobs Plan largely consists of one of the largest corporate welfare proposals in history.

Specifically, the Biden administration is trying to position itself as the center of scientific innovation. Instead of merely encouraging research, development, and commercialization by providing tax incentives for investment and R&D, and tightening intellectual property and patent laws, Washington would micromanage the innovation process by steeply raising corporate tax rates, and then returning hundreds of billions of dollars in federal grants to companies that undertake government-approved projects. Advocates point to past federal loans to Tesla that were fully repaid by the flourishing company. However, today's promising companies have no problem securing loans and equity from a financial system awash in capital and low interest rates.

The administration's almost limitless discretion in dispensing hundreds of billions of dollars risks becoming a budget-busting slush fund for favored industries, businesses, and allies. The electric vehicle industry would receive \$174 billion. Broadband subsidies would total \$100 billion, even as the broadband industry already invests more than \$50 billion annually in infrastructure.³² There is a \$25 billion "ambitious projects" fund in transportation, \$52 billion domestic manufacturing fund, \$31 billion venture capital fund, \$27 billion "Clean Energy and Sustainability Accelerator," \$14 billion commerce competitiveness fund, \$35 billion climate innovation fund, and \$30 billion "innovation and job creation" fund.

Central planning is labor intensive, and distributing all these grants would require a staggering number of new federal offices, boards, and agencies. The Department of Commerce would create a \$50 billion office "dedicated to monitoring domestic industrial capacity and funding investments to support production of critical goods." The proposal would also spend "\$20 billion in regional innovation hubs and a Community Revitalization Fund." A "technology directorate" would coordinate countless new initiatives lavishing money on the computing, communications, energy, and biotech sectors. Another program would "bring together industry, academia, and government to advance technologies and capabilities critical to future competitiveness."

But when Washington chooses the wrong winners and losers, the taxpayers pay. The last similar corporate welfare push was in the 2009 stimulus. Back then, a *Washington Post* investigation revealed that President Obama's energy grant programs were so "infused with politics at every level" that the White House reportedly ignored red flags and expedited approval of a questionable \$535 million loan guarantee to the well-connected clean energy company Solyndra.³³ It was later revealed that the company brazenly misled the administration on its application, and its subsequent bankruptcy left taxpayers holding the bag for the loan.³⁴

More examples abound. The Advanced Technology Program (ATP) was a longstanding Department of Commerce program intended to provide last-resort corporate financing to bring their newest technologies to the market.³⁵ Several scathing GAO investigations revealed that ATP eventually became a slush fund for Fortune 500 companies, in which federal grant reviewers lacked expertise in the fields they reviewed, and were easily (and purposely) misled by grant applicants seeking easy federal cash with few strings attached.³⁶

Consequently, just one-third of ATP grants successfully brought a product to market despite the technologies supposedly being ready to commercialize.³⁷ Both parties terminated the ATP in 2005 as well as its flawed successor program in 2011. The American Jobs Plan would resuscitate and expand the same failed approach, and give agencies even more money to hand out.

The idea that Washington can successfully pick innovation winners and losers competently and with no political interference reflects the triumph of hope over experience. Yet central planning is popular with those who aspire to do the planning, and with the well-connected industries hoping to cash in on the government spending gold rush.

Economists Agree: Infrastructure is *not* “Stimulus” or Job Creation

Finally, let’s address the “jobs” portion of the American Jobs Plan. The Biden Administration and other advocates assert that massive infrastructure spending will stimulate short-term economic growth and create jobs.

Economists across the political spectrum have debunked this myth for the obvious reason that infrastructure projects require several years of planning and regulatory reviews before they begin – at which point the economy has already recovered. In fact, as stated above, environmental impact statements typically take seven years to complete. After allocating \$94 billion for mostly “shovel-ready” stimulus projects in 2009, President Obama later joked that “Shovel-ready was not as . . . shovel-ready as we expected.”

Former Obama White House chief economist Jason Furman and former Congressional Budget Office director Doug Elmendorf added that “In the past, infrastructure projects that were initiated as the economy started to weaken did not involve substantial amounts of spending until after the economy had recovered.”³⁸

Delays are not the only stimulus barrier. Stanford economists John Cogan and John Taylor observed that state and local governments receiving 2009 federal stimulus infrastructure grants simply cut back on their own spending and borrowing almost dollar-for-dollar, completely negating the impact of the federal spending.³⁹

The stimulus case is also undermined by Washington distributing spending largely based on politics rather than local economic needs. Harvard economist Edward Glaeser revealed that 2009 stimulus dollars were disproportionately distributed to regions with lower unemployment rates that did not need stimulus. On one level, this makes sense -- many high unemployment regions are rural or losing population, and are thus not the best candidates for widening local highways or adding high-speed rail. However, this approach exposes the disconnect between the goals of infrastructure and job creation. Glaeser also writes that, unlike the past infrastructure projects that relied more on manual labor, today’s “big infrastructure requires fancy equipment and skilled engineers, who aren’t likely to be unemployed.”⁴⁰

Because of these factors, a review of 2009 stimulus highway projects shows no sustained effect on county-level employment.⁴¹ Another study found that half of all new employees hired at firms that received stimulus dollars had been poached from other firms (rather than coming from the ranks of the unemployed), and many of these companies were forced to turn down other construction projects to accommodate the new “stimulus” projects.⁴²

Overall, CRS examined highway spending and concluded that “to the extent that financing new highways [comes from] reducing expenditures on other programs or by deficit finance . . . the net impact on the economy of highway construction in terms of both output and employment could be nullified or even negative.”⁴³

Adherents to the infrastructure stimulus argument should consider the case of Japan, which responded to a sustained economic downturn with \$6.3 trillion in infrastructure investment between 1991 and 2008.⁴⁴ One of the largest investments in airports, trains, highways, and tunnels in world history helped push Japan’s national debt from 38 percent to 140 percent of GDP, yet its per-capita GDP was roughly the same in 2008 as in 1994.

Third, political considerations can limit the stimulative effect of infrastructure. The geographic distribution of infrastructure spending has historically been driven by the political leverage of lawmakers, as well as political considerations within federal agencies. It is naïve to expect politics remove to be removed from the allocations.

Consequently, Washington has historically over-invested in large vanity projects that provide ribbon-cutting ceremonies. such as high-speed rail, the expansion of interstate highways, and the famous (and eventually cancelled) \$223 million “Bridge to Nowhere.” However, economist Aaron Renn has shown that “America’s infrastructure crisis is local,” and repairing local streets, bridges, and potholes is a much higher and more affordable priority. These locally managed projects are often ineligible for federal funding.⁴⁵

State governments face their own mis-aligned incentives with federal dollars. A state funding a \$100 million project with its own transportation revenues must convince its taxpayers that the project will provide \$100 million in value. By contrast, if the state is required to put up just \$20 million of its own funds -- and can use a federal infrastructure grant for the remaining \$80 million -- it need only convince its citizens that the project is worth \$20 million. In other words, the ability to offload the costs on the federal government makes states more cavalier with how the funds are spent.

Consequently, past infrastructure stimulus bills and reauthorizations have not sufficiently relieved traffic congestion, repaired bridges and roads, or improved waterways. Instead, they brought unfinished high-speed rail projects, cost overruns, a \$3.4 million “eco-passage”⁴⁶ to help turtles cross a highway in Tallahassee, Fla., and a \$54 million “Napa Valley Wine Train.”⁴⁷ Better to eliminate the federal middleman and empower state and local governments to more easily raise the funds to finance local projects based on local priorities.

Conclusion: Fix the System First, and Be Fiscally Responsible

The laws of economics have not been repealed. Budget constraints still exist. Doubling or tripling the national debt is extraordinarily reckless. There is no guarantee that interest rates will never rise again – indeed such a result is overwhelmingly likely. There are no plausible taxes that can finance the projected spending levels, and counting on the Federal Reserve to monetize much of this debt is a recipe for economic chaos.

More specifically, a \$400 billion long-term care expansion – whatever its merits – has no place in an infrastructure bill. Spending \$1 trillion on infrastructure without fixing the underlying waste, inefficiencies, and delays in our system represents an extraordinary missed opportunity, and confuses spending levels with outcomes. Giving the administration carte blanche to hand out hundreds of billions of dollars in corporate welfare simply doubles down on past policy mistakes. Lawmakers should first reform the infrastructure costs and delays, and encourage states to use their \$530 billion in federal aid to address local infrastructure priorities.

¹ White House, “Fact Sheet: The American Jobs Plan,” March 31, 2021, at <https://www.whitehouse.gov/briefing-room/statements-releases/2021/03/31/fact-sheet-the-american-jobs-plan/>.

² Preliminary cost estimate from “What’s in President Biden’s American Jobs Plan?” Committee for a Responsible Federal Budget, April 2, 2021 at <https://www.crfb.org/blogs/whats-president-bidens-american-jobs-plan>.

³ Congressional Budget Office, “The Budget and Economic Outlook: 2021 to 2031,” February 11, 2021, at <https://www.cbo.gov/publication/56970>. CBO projected a debt held by the public of \$33.3 trillion at the end of FY 2030, before the latest stimulus bill added \$2 trillion.

⁴ Cost estimates of Biden campaign proposals are at Brian Riedl, “Joe Biden Has an \$11 Trillion Spending Plan. Can He Enact It?” The Dispatch, September 3, 2020, at <https://thedispatch.com/p/joe-biden-has-an-11-trillion-spending>. Most of the \$11 trillion spending breakdown comes from the Biden campaign itself, and the \$3.5 trillion in taxes comes from the Brookings/Urban Tax Policy Center.

⁵ Calculated using Congressional Budget Office, “The 2020 Long-Term Budget Outlook,” at September 21, 2020, at <https://www.cbo.gov/publication/56516> and the “Long-Term Budget Projections” tab.

For more analysis of these long-term deficits, see Brian Riedl, “Spending, Taxes, & Deficits: A Book of Charts,” Manhattan Institute, October 26, 2020, at <https://economics21.org/brian-riedl-on-taxes-spending-deficit>.

⁶ Calculated using Congressional Budget Office, “The 2020 Long-Term Budget Outlook,” at September 21, 2020, at <https://www.cbo.gov/publication/56516> and the “Long-Term Budget Projections” tab.

⁷ For a sample proposal to stabilize the long-term debt, see Brian Riedl, “A Comprehensive Federal Budget Plan to Avert a Debt Crisis,” Manhattan Institute, October 10, 2018, at <https://www.manhattan-institute.org/html/report-comprehensive-federal-budget-plan-avert-debt-crisis-11497.html>.

⁸ Congressional Budget Office, “The Budget and Economic Outlook: 2021 to 2031,” February 11, 2021, at <https://www.cbo.gov/publication/56970>. CBO projected a \$12.3 trillion deficit from FY 2022-2031, before the latest \$2 trillion stimulus bill.

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- ¹⁰ Garrett Watson and William McBride, "Evaluating Proposals to Increase the Corporate Tax Rate and Levy a Minimum Tax on Corporate Book Income," Tax Foundation, February 24, 2021, at <https://taxfoundation.org/biden-corporate-income-tax-rate/>.
- ¹¹ Klaus Schwab (editor), The Global Competitiveness Report: 2019, World Economic Forum, at http://www3.weforum.org/docs/WEF_TheGlobalCompetitivenessReport2019.pdf. For a discussion, see also Charles Lane, "No, America's infrastructure is not 'crumbling'," Washington Post, April 6, 2021 at https://www.washingtonpost.com/opinions/no-americas-infrastructure-is-not-crumbling/2021/04/06/ab97cc50-9554-11eb-a6d0-13d207aad78_story.html.
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- ¹⁴ Congressional Budget Office, "Public Spending on Transportation and Water Infrastructure, 1956 to 2017," October 2018 at <https://www.cbo.gov/system/files/2018-10/54539-Infrastructure.pdf>.
- ¹⁵ American Society of Civil Engineers, "2021 Report for America's Infrastructure," Energy chapter, at <https://infrastructurereportcard.org/cat-item/energy/>.
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- ²³ Mitch Daniels, Testimony before Senate Finance Committee, June 25, 2015, at <https://www.purdue.edu/president/speeches/2015/150625-infrastructure-testimony.pdf>.
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- ²⁶ Megan McArdle, Twitter, February 13, 2019, at <https://twitter.com/asymmetricinfo/status/1095787003189309448>.
- ²⁷ Kerry Jackson, "The Low Spark of High-Speed Rail: California's bullet-train project is still under construction as delays and costs pile up," at February 25, 2021, at <https://www.city-journal.org/high-costs-construction-delays-plague-ca-high-speed-rail>.
- ²⁸ Randal O'Toole, "Transit: The Urban Parasite. The costs of supporting the nation's urban transit industry are rising, yet ridership is declining." Cato Institute, Policy Analysis No. 889, April 20, 2020, at <https://www.cato.org/policy-analysis/transit-urban-parasite>.

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- ²⁹ Bureau of Labor Statistics, "Union Members – 2020: Table 3. Union affiliation of employed wage and salary workers by occupation and industry" January 22, 2021, at <https://www.bls.gov/news.release/union2.t03.htm>.
- ³⁰ Committee for a Responsible Federal Budget, "State and Local Governments Do Not Need Half a Trillion in COVID Relief," February 2017, 2021 at <https://www.crfb.org/blogs/state-and-local-governments-do-not-need-half-trillion-covid-relief>. For one example, the report states that "Though its revenue was flat in 2020, California is now facing a \$25 billion surplus (originally \$15 billion, with \$10 billion more) thanks in part to a windfall from capital gains tax collections."
- ³¹ The most recent stimulus law contained \$129 billion that is purportedly for school mitigation measures to accommodate social distancing and pandemic risks. However, the CDC has estimated that school mitigation strategies should cost no more than \$23 billion. Moreover, education policy expert Dan Lips notes that state and local governments are still sitting on more than \$50 billion in unused K-12 school relief funds from earlier emergency bills. Then what is the purpose of this additional \$129 billion? Certainly not to address the pandemic; the CBO calculates that more than two-thirds of this spending would occur between 2023 and 2028.
- ³² Michael Mandel and Elliott Long, "Investment Heroes 2020," Progressive Policy Institute, July 24, 2020, at <https://progressivepolicy.org/blogs/investment-heroes-2020/>.
- ³³ Joe Stephens and Carol D. Leonnig, "Solyndra: Politics infused Obama energy programs," Washington Post, December 25, 2011, at https://www.washingtonpost.com/solyndra-politics-infused-obama-energy-programs/2011/12/14/gIQA4HIIHP_story.html.
- ³⁴ Katie Fehrenbacher, "Why the Solyndra mistake is still important to remember," Fortune, August 27, 2015, at <https://fortune.com/2015/08/27/remember-solyndra-mistake/>.
- ³⁵ For an overview of this boondoggle of a program, see Brian Riedl, "The Advanced Technology Program: Time to End this Corporate Welfare Handout," Heritage Foundation *Backgrounder* July 15, 2003 at <https://www.heritage.org/budget-and-spending/report/the-advanced-technology-program-time-end-corporate-welfare-handout>.
- ³⁶ See General Accounting Office, "Federal Research: Challenges to Implementing the Advanced Technology Program," Report B-278569, March 2, 1998, at <https://www.gao.gov/assets/rced/oce-98-83r.pdf>. General Accounting Office, Advanced Technology Program: Inherent Factors in Selection Process Could Limit Identification of Similar Research, "GAO/RCED-00-114, April 2000, at <https://www.gao.gov/assets/rced-00-114.pdf>. General Accounting Office, "Measuring Performance: The Advanced Technology Program and Private-Sector Funding," Report RCED-96-47, January 11, 1996, at <https://www.gao.gov/products/rced-96-47>.
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- ⁴⁰ Edward L. Glaeser, "If You Build It . . . Myths and realities about America's infrastructure spending," City Journal Summer 2016, at <https://www.city-journal.org/html/if-you-build-it-14606.html>.
- ⁴¹ Edward L. Glaeser, "If You Build It . . . Myths and realities about America's infrastructure spending," City Journal Summer 2016, at <https://www.city-journal.org/html/if-you-build-it-14606.html>.
- ⁴² Garrett Jones and Daniel M. Rothschild, "The Limits of Infrastructure Stimulus," Mercatus Center, Policy Brief, March 25, 2020 at https://www.mercatus.org/system/files/rothschild_and_jones_-_policy_brief_-_covid_series_-_lessons_learned_from_arra_for_infrastructure_stimulus_-_v1.pdf.
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