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ARTICLE

Partisanship and Permanence: How Congress Contested the Origins of the Interstate Highway System and the Future of American Infrastructure

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In the mid-1950s, the Eisenhower administration and Congress erupted in a sharp partisan debate over how to pay for the novel National System of Interstate and Defense Highways, slated to become the most expensive and expansive public works project in United States history. Republicans advocated for interest-bearing bonded debt borrowed from banks, while Democrats preferred to avoid debt service costs and apply a direct tax-and-pave approach to the enormous state building project. The chosen fiduciary practices promised to be as permanent as the physical infrastructure they paid to construct and maintain. Consequently, the fraught episode saw the two parties contest not only transportation infrastructure and the capital supply upon which it depended, but indeed the very nature and future of American political economy. When the tax-and-pave approach prevailed, it saved taxpayers interest costs, but came with its own perilous consequences as it set near-limitless development in motion.

The afternoon of June 29, 1956, found President Dwight D. Eisenhower counting down the final twenty-four hours of a three-week stay in Walter Reed Army Medical Center. He had been hospitalized with a severe bout of ileitis that required surgery. Rumored to have been brought on by eating too many "hot and greasy tidbits" at a party, the intestinal ailment worried a nation that had watched the president survive a heart attack just the year before. So, in a show of strength, Eisenhower spent his final day in Walter Reed meeting with Richard Nixon to plan the Vice President's upcoming Cold War mission to the Philippines and signing twenty-seven bills that had accumulated throughout his hospital stay. Chief among these was the long-awaited Federal-Aid Highway Act of 1956, the legislation now commonly credited with creating the interstate highway system—the most expensive and expansive public works project in American history at the time.[1]

Popular accounts of the interstate highway system's origins tend to credit Eisenhower personally with its development. As the story goes, Eisenhower shepherded the enormous public works project into existence in a beacon example of beneficent, bipartisan state building that

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[1]Richard Weingroff, "President Eisenhower's Big Day," *Highway History*, Federal Highway Administration, June 27, 2017, https://www.fhwa.dot.gov/infrastructure/bigday.cfm (accessed Jan. 30, 2022); Tom Lewis, *Divided Highways: Building the Interstate Highways, Transforming American Life* (Ithaca, NY, 2013), xiii, 121–3; Eric Avila, *The Folklore of the Freeway: Race and Revolt in the Modernist City* (Minneapolis, 2014), 1.

signaled national strength and preparedness at the peak of Cold War fears of nuclear attack. It is a narrative that subsequent presidents deployed in support their own agendas. Ronald Reagan, for example, declared a "National Interstate Highway Day" on the thirtieth anniversary of the 1956 act, invoking Eisenhower's leadership and calling the interstate system "the world's largest and most successful transportation and public works project" as he pushed for his own infrastructure plans. Not long after, George H. W. Bush attached Eisenhower directly to the nation's defining infrastructure system when he redesignated it the "Dwight D. Eisenhower National System of Interstate and Defense Highways." And a generation later, Barack Obama looked to Eisenhower for inspiration, telling the nation that when Eisenhower "built the interstates" he showed that "infrastructure should not be a partisan issue." Had Obama looked a little closer, he might have discovered the interstate system's deeper and more partisan legislative foundations, and perhaps drawn different lessons from its history.[2]

The interstate highway system had existed in law for more than a decade before Eisenhower approved its latest legislative blueprint in 1956. The Federal-Aid Highway Act of 1944, signed by President Franklin D. Roosevelt, mandated—but crucially did not fund—the creation of a 40,000-mile-long "National System of Interstate Highways" to connect the nation's "principal metropolitan areas" and "serve the national defense." The 1956 highway act signed by Eisenhower moved "defense" from the statute's description to its title and added 1,000 more miles to the system. Still more significantly, it added contentious fiscal provisions capable of turning mandates into physical infrastructure, and made the federal government responsible for 90 percent of construction costs. Though the convalescent Eisenhower declined to be photographed as he signed the legislation from the confines of his hospital cot, he etched the event into the pantheon of dramatic moments in presidential history. Indeed, the circumstances helped obscure what should have been rather obvious: by many measures, the plan for the interstate system put forth by Eisenhower and his administration had failed.[3]

Rather than artifacts of Eisenhower's personal statesmanship, the Federal-Aid Highway Act of 1956 and the interstate highway system it created were products of a partisan battle in Congress over the fiscal and physical contours of the long-awaited infrastructure project. Indeed, the common emphasis on presidential leadership and bipartisanship has obscured the divergent impulses that animated congressional representatives who could turn ideas into law, capital, and pavement—the raw ingredients of the massive, immovable infrastructure system in question. It is true that most politicians in the 1950s supported the creation of a

[2]For example, see Glenda Elizabeth Gilmore and Thomas Sugrue, *These United States: A Nation in the Making, 1890 to the Present* (New York, 2015), 346. See also Eric Foner, *Give Me Liberty! An American History* (New York, 2017), 948. The United States Army still claims that nuclear defense was a key factor in the interstate system's design. See Lee Lacy, "Dwight D. Eisenhower and the Birth of the Interstate System," *United States Army*, Feb. 20, 2018, https://www.army.mil/article/198095/dwight_d_eisenhower_and_the_birth_of_the_interstate_highway_system (accessed Jan. 30, 2022). On subsequent presidential invocations, see Richard Weingroff, "In Memory of Ronald Reagan," *Highway History*, Federal Highway Administration, June 27, 2017, https://www.fhwa.dot.gov/infrastructure/reagan.cfm (accessed Jan. 30, 2022); Ronald Reagan, "Proclamation 5503—National Interstate Highway Day, 1986," *The American Presidency Project*, https://www.presidency.ucsb.edu/node/258926 (accessed Jan. 30, 2022); "A Bush at Both Ends: Before and After the Interstate Era," *Highway History*, Federal Highway Administration, June 27, 2017, https://www.fhwa.dot.gov/infrastructure/rw01d.cfm (accessed Jan. 30, 2022); An Act to Redesignate The National System of Interstate and Defense Highways as The Dwight D. Eisenhower System of Interstate and Defense Highways, Pub. Law No. 101-427, 104 Stat. 927 (1990); David Hudson, "President Obama: 'Let's Build Some Bridges, Let's Build Some Roads,'" *The White House Blog*, July 17, 2014, https://obamawhitehouse.archives.gov/blog/2014/07/17/president-obama-lets-build-some-bridges-lets-build-some-roads (accessed Jan. 30, 2022); and Philip Bump, "Obama Calls for Infrastructure Spending—for the Fifth Time in Five Years," *The Atlantic*, Mar. 29, 2013, https://www.theatlantic.com/politics/archive/2013/03/obama-calls-infrastructure-spending-fifth-time-five-years/316815/ (accessed Jan. 30, 2022).

[3]Federal-Aid Highway Act of 1944, Pub. Law No. 78-521, 58 Stat. 838 (1944); Federal-Aid Highway Act of 1956, Pub. Law No. 84-627, 70 Stat. 374 (1956); Weingroff, "President Eisenhower's Big Day"; Lewis, *Divided Highways*, 121.

national highway network, and that the 1956 highway act arrived at Walter Reed with a mix of Republican and Democratic support. But that support resulted from power wielding as much as deal making. Following the 1954 midterm elections, Democrats gained majorities in the House and Senate. From that position, they held a line against Republican financing plans and eventually backed Eisenhower into the political corner in which he signed the 1956 act, with their own fiscal plans at the center of the legislation.[4]

In 1955, at the beginning of the legislative process that led toward the Federal-Aid Highway Act of 1956, Republicans favored financing the interstate system's development with bonded debt borrowed from private lenders. Democrats denounced the cost of interest payments that bonded debt required. Instead of bonds, they proposed new automotive taxes to fund interstate development, a proposal that became institutionalized via the 1956 highway act as the Highway Trust Fund, a set of fiduciary obligations that amounted to a pay-as-you-pave financial structure based on direct taxation and expenditure. Throughout the legislative wrangling that culminated in the 1956 highway act, however, the tax system that added up to the Highway Trust Fund was hardly a foregone conclusion, and the stakes of the debate over bonds and taxes were high. The magnitude of the interstate highway project was enormous, even compared to New Deal efforts still fresh in political memory. The 1933 public works appropriation included in the National Industrial Recovery Act, for example, ran to $3.3 billion (much of which was spent by the Public Works Administration), and the Emergency Relief Appropriation Act of 1935 (funding the Works Progress Administration, among other agencies) totaled $4.88 billion. In stark contrast, even Eisenhower's fiscally cautious administration projected a $27 billion price tag for the interstate highway project. It should not, perhaps, be surprising that such a figure provoked partisan discord.[5]

Debate was all the fiercer because of the characteristics of the legislation in question. The physicality of the interstate highway project meant that its transformations would be not only spatial, but temporal. Infrastructure is meant to last; indeed, infrastructure outlasts the politics that produce it. The particular methods of interstate highway financing and development that Congress chose would fasten political, economic, legal, and geographical changes in place across long horizons of space and time. In its many forms, this durability is infrastructure's great promise and its great peril. Returning to congressional debates over how to finance the interstate system thus provides an opportunity to examine how, in clashing over bonds and taxes, Republicans and Democrats argued over the nature and future of American political economy. When the Democrats' tax-based Highway Trust Fund prevailed, it saved citizens billions of dollars in interest payments on bonded debt. But it came with its own complications. The trust fund enabled interstate development by collecting tax revenue from gasoline, tires,

[4]Historians have recognized but not emphasized partisanship in the interstate highway system's origins. Chief among studies that note party differences is Mark H. Rose and Raymond A. Mohl, *Interstate: Highway Politics and Policy Since 1939*, 3rd ed. (Knoxville, TN, 2012), 29–40, 87–94. Rose and Mohl's congressional analysis is centered in chapter 3. Their analysis emphasizes a period prior to the partisan congressional debate over bonds and taxes that developed in 1955, and details how Congress as a whole interacted with the executive branch and lobbying efforts. See also Michael R. Fein, *Paving the Way: New York Road Building and the American State, 1880–1956* (Lawrence, KS, 2008), 228; Christopher W. Wells, *Car Country: An Environmental History* (Seattle, WA, 2012), 273–4; and Lewis, *Divided Highways*, 114–21.

[5]Title II of the Federal-Aid Highway Act of 1956 created the Highway Trust Fund and established new excise taxes on diesel, gasoline, tires, and other automotive goods. See Federal-Aid Highway Act of 1956, Pub. Law No. 84-627, 70 Stat. 374. On New Deal funding, see Jason Scott Smith, *Building New Deal Liberalism: The Political Economy of Public Works, 1933–1956* (New York, 2006), 31, 102. The $27 billion projection came from The President's Advisory Committee on a National Highway Program, *A Ten-Year National Highway Program: A Report to the President* (Washington, DC, 1955), v. John D. Morris, "Eisenhower Signs Road Bill; Weeks Allocates 1.1 Billion," *New York Times*, June 30, 1956, 1; Joseph C. Ingraham, "U.S. Drivers Begin Footing New Highway Bill," *New York Times*, July 1, 1956, X19; Joseph C. Ingraham, "U.S. Gasoline Tax Up a Penny Today," *New York Times*, July 1, 1956, 31.

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and other automotive expenditures and turning that capital into pavement. The result was cyclical path dependence in the form of a tax-and-pave loop that ensured ongoing interstate development as long as people kept driving their cars and buying goods hauled by truckers. This arrangement tethered state building to petroleum consumption, and it facilitated development practices marked by twinned but opposite processes of change: state *building* became inseparable from state *clearing* to make way for the interstate system, just as its *construction* required *destruction* from the late 1950s onward.[6]

The statutory construction of the Highway Trust Fund set those dyadic changes in motion, and historians have chronicled some of the problems that followed. Francesca Russello Ammon identifies interstate highway construction as a core component of a distinct post–World War II "culture of clearance" produced by officials who bulldozed parks, neighborhoods, and unbuilt spaces in the name of progress. Throughout the 1950s and 1960s, such activities of state building required "physical and social devastation" of the national landscape. The markers of supposed progress, meanwhile, were the era's proliferating suburbs, shopping centers, and metropolitan areas that filled cleared spaces, and whose growth the interstate system made possible. Such growth brought postwar affluence to some, yet it was dependent upon inequality. The issues were often clearest in urban areas, where officials put their priorities on vivid display as they demolished neighborhoods to make way for interstate highway construction. As Nathan D. B. Connolly notes, the "disruption," "pain," and "displacements" that followed the interstate system's routes were "intentional" components of a racist and classist state building regime that reordered cities under cover of convenient slogans like "slum clearance" and "urban renewal." By the 1970s, interstate construction displaced 200,000 people annually, and at least 1,600 poor and minority neighborhoods in their entirety had fallen to the "concrete monsters," a nickname soon appended to the interstates. Coupled with its destructive effects, the imposing physical infrastructure of the interstate highway system lent itself to such an epithet. But a far less visible fiscal infrastructure undergirded the interstate system and its outcomes, and the contested legislative origins of that fiscal infrastructure have remained far less studied than its consequences.[7]

[6]The clash over bonds came during a crucial period of political, economic, and governmental development in the 1950s. See Lisa McGirr, *Suburban Warriors: The Origins of the New American Right* (Princeton, NJ, 2001); Kevin Kruse, *One Nation Under God: How Corporate America Invented Christian America* (New York, 2015); Lawrence Glickman, *Free Enterprise: An American History* (New Haven, CT, 2019); Kim Phillips-Fein, "The History of Neoliberalism," in *Shaped by the State: Toward a New Political History of the Twentieth Century*, eds. Brent Cebul, Lily Geismer, and Mason B. Williams (Chicago, 2019), 347–62; and Kristoffer Smemo, "The Making of 'Liberal' Republicans During the New Deal Order," in *Beyond the New Deal Order: U.S. Politics from the Great Depression to the Great Recession*, eds. Gary Gerstle, Nelson Lichtenstein, and Alice O'Connor (Philadelphia, 2019), 54–70. The Highway Trust Fund followed existing trust fund models for taxation and expenditure developed during the New Deal, including the fiscal mechanism that enabled Social Security. See Julian E. Zelizer, *Taxing America: Wilbur D. Mills, Congress, and the State* (New York, 1998), 55–61. For a study of the broad relationship between petroleum-derived capital and highway construction, see Christopher W. Wells, "Fueling the Boom: Gasoline Taxes, Invisibility, and the Growth of the American Highway Infrastructure, 1919–1956," in "Oil in American History," eds. Brian Black, Karen R. Merrill, and Tyler Priest, special issue, *Journal of American History* 99, no. 1 (June 2012): 72–81. On the early political and legal formation of the American oil market, see Paul Sabin, *Crude Politics: The California Oil Market, 1900–1940* (Berkeley, CA, 2004).

[7]Francesca Russello Ammon, *Bulldozer: Demolition and the Clearance of the Postwar Landscape* (New Haven, CT, 2016), 5–8, 183; Lizabeth Cohen, *A Consumers' Republic: The Politics of Mass Consumption in Postwar America* (New York, 2003), 196–9; N. D. B. Connolly, *A World More Concrete: Real Estate and the Remaking of Jim Crow South Florida* (Chicago, 2014), 8, 213. In 2014, the *Journal of Urban History* devoted a special section to the history of interstate development in cities that emphasized urban consequences of interstate development. For an overview of the issue, see Roger Biles, Raymond A. Mohl, and Mark H. Rose, "Revisiting the Urban Interstates: Politics, Policy, and Culture Since World War II," *Journal of Urban History* 40, no. 5 (Sept. 2014): 827–30. The classic contemporaneous account of affluence and inequality in the 1950s is John Kenneth Galbraith, *The Affluent Society* (Boston, 1958). On the term "concrete monsters," see Raymond A. Mohl, "The

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Bonded Debt, Excise Taxes, and the Paradoxes of Conservative State Building

The political and economic choices that shaped the interstate system's physical and social consequences developed in Congress. As momentum built around the interstate highway project in the 1950s, legislators had to answer a straightforward but pivotal question: who should pay for the system, and how? By the early twentieth century, local and state bond issues had become a common source of funding for public works projects, a trend that became even more pronounced around the midpoint of the twentieth century. In the post–World War II years, low interest rates led local and state officials to issue bonds with enthusiasm, considering debt to be a cheap source of capital. Historians have devoted significant attention to bonded debt and its subnational acolytes in this midcentury period. However, the role of bonds at the federal level in these years has received less historical scrutiny. In the case of the interstates, bonded debt provoked enthusiasm and concern in equal measures, leading to a rare midcentury instance in which objections to bonded debt not only gained political articulation, but prevailed.[8]

If the objection to bonds in the case of the interstate system was unusual, it was not unwarranted. A government-issued bond can be thought of as a profit-seeking private investment in state building and governance. A bank or other institutional lender delivers capital to a given unit of government—whether local, state, or federal—for use on a specific project. The governmental borrower owes the lender the principal sum borrowed in addition to an agreed upon rate of interest, payable over whatever timeframe the two parties choose. The bonded debt is secured by tax dollars: the principal and interest to be repaid derive either from revenue collected from the use of the project funded by the bonded debt, or from general tax revenue. Despite carrying the cost of interest, bonds offer governmental borrowers two key advantages. First, borrowing capital delivers cash up front, avoiding the need to slowly accumulate tax money before there is a pool of capital sufficient to begin a project. Second, bonded debt avoids the need to raise taxes or levy new ones to accumulate revenue. Amortization—the process of paying off principal and interest across time—in the long run costs taxpayers money beyond the amount expended on the project in question, due to interest payments on the bonded debt. But tax rates can remain stable throughout amortization because tax revenue can continue flowing back to lenders even after a project is complete. Private capital delivered as bonded debt, in other words, can enable low tax rates even as tax revenue piles up in excess of the amount of capital needed for a particular project. Meanwhile, bonds support the long American tradition of keeping the government "out of sight" with market-tied associational governance that blurs distinctions between public and private action with the help of market institutions.[9]

Interstates and the Cities: Highways, Housing, and the Freeway Revolt," *Poverty & Race Research Action Council*, 2002, 1–78, here 37.

[8]On earlier approaches to highway financing, see Roger Biles, "Expressways Before the Interstates: The Case of Detroit, 1945–1956," *Journal of Urban History* 40, no. 5 (Sept. 2014): 843–54; and Wells, "Fueling the Boom." On the rise of bonded debt and its social consequences in this period, see Gail Radford, "From Municipal Socialism to Public Authorities: Institutional Factors in the Shaping of American Public Enterprise," *Journal of American History* 90, no. 3 (Dec. 2003): 863–90; and Destin Jenkins, *The Bonds of Inequality: Debt and the Making of the American City* (Chicago, 2021). In quantitative terms, the postwar period saw "the total amount of state and local bonded debt nationwide grew sixfold, from $19 billion in 1948 to $124 billion in 1968," and funded "roads and bridges, sewers and waterworks, parks, and public housing." Michael Glass, "Schooling Suburbia: The Politics of School Finance in Postwar Long Island" (Ph.D. diss., Princeton University, 2020), 23–4.

[9]On the particularities of bonds and the manner in which they mediate the public–private relationship, see Jenkins, *Bonds of Inequality*, 1–9, 23–4. See also Eric H. Monkkonen, *The Local State: Public Money and American Cities* (Stanford, CA, 1995); and Alberta M. Sbragia, *Debt Wish: Entrepreneurial Cities, U.S. Federalism, and Economic Development* (Pittsburgh, PA, 1996). On "associational" and "out of sight" governance, see Brian Balogh, *The Associational State: American Governance in the Twentieth Century* (Philadelphia, 2015); and Brian Balogh, *A Government Out of Sight: The Mystery of National Authority in Nineteenth-Century America* (New York, 2009).

These aspects of bonded debt appealed to Republican officials in the 1950s as they argued for building the interstate highway system with money borrowed from private lenders. Indeed, the debate over using bonds for the interstate highway project developed against a backdrop of far broader political arguments about government spending. In the years after World War II, according to James Sparrow, it became clear that Americans "had authorized a government far larger and more intrusive than the New Deal state had ever been." For some, this was cause for alarm, and the 1952 presidential election became something of a referendum on the situation. The United States was at a "crossroads," charged Senator Robert Taft, the conservative firebrand known as "Mr. Republican," as he campaigned for his party's nomination. Thanks to the "economic plans of the long-haired braintrusters"—a reference to New Deal interventions that continued to shape political and economic life—"our liberty is threatened by big government." While Taft's own presidential aspirations were cut short by Dwight D. Eisenhower's primary election victory, Taft continued to call on "every American" to support Eisenhower in the general election and restore a government built on "honesty, efficiency, economy, and above all liberty." Eisenhower subsequently spent much of his campaign decrying "excessive taxation" and the "ceaseless expansion" of the federal government, a source of "evil" that would "throttle" freedom.[10]

If such conservatives presented taxes and expansive governance as anathema to their visions of society, paradoxes soon emerged. Once president, Eisenhower expressed enthusiasm for directing federal power toward reordering "the very structure" of American life with the interstate highway system. But the Republican Party's tax-averse positioning was incongruent with support for a massive public works project, as was the basic interest Eisenhower expressed in overt governmental management of the nation's structure. Bonds, however, could offer some measure of philosophical and economic egress from the quandary. Officials within the Eisenhower Administration became determined to pay for interstate construction with capital borrowed from banks. Such bonded debt was a logical solution for conservatives who supported the interstate highway project but staked their Cold War political principals to fears of socialism and communism springing forth from even the most incremental of tax levies and governmental interventions.[11]

Bonds could deliver capital quickly and solve some of the political challenges of conservative state building. But as Democrats quickly argued, bonds also indebted citizens and their representatives to profit-seeking institutions, raising questions about the political economy and political culture such an arrangement produces. Bonds required present and future taxpayers to repay principal money owed as well as the cost of interest, recasting state building and public works as profit-seeking endeavors guided by private interests. Indeed, bonded debt obligated public revenue to the private sector—after all, bonds did not erase the need for taxation, but merely diverted tax dollars from the public purse into private coffers where it accumulated as profit. Democrats consequently worked in Congress to exclude bonded debt from the interstate project's financing and replace it with direct revenue expenditure drawn from new excise taxes on gasoline and other automotive goods. Excise taxes—taxes levied on the sale of a particular commodity such as gasoline—offered a straightforward relationship between taxpayers and state building that contrasted with bonded debt's marketized and associational structures.

[10]James T. Sparrow, *Warfare State: World War II Americans and the Age of Big Government* (New York, 2011), 243; Robert A. Taft, "Progress Through Liberty: Speech to the Ohio Republican Rally," in Clarence E. Wunderlin, Jr., ed., *The Papers of Robert A. Taft*, vol. 4, 1949–1953 (Kent, OH, 2006), 421–4. Eisenhower is quoted in Kruse, *One Nation Under God*, 59–60.

[11]Eisenhower is quoted in Gary Gerstle, *Liberty and Coercion: The Paradox of American Government from the Founding to the Present* (Princeton, NJ, 2015), 266. Several studies mention how Eisenhower's political views led him to support the basic concept of the interstate system, but presidential proclivities cannot fully explain legislative development. See Cohen, *A Consumers' Republic*, 118–9; Kruse, *One Nation Under God*, 85–7; and Glickman, *Free Enterprise*, 149–51.

Thus, at stake in the looming debate over interstate financing were competing social ideas and financial mechanisms with which the federal government could provide public works.[12]

General public and political support for the broad outlines of the interstate highway project belied just how forceful the debate would become. Previously, federal highway officials in the 1930s and 1940s—working in the currents of the New Deal—had produced a bureaucratic consensus that national progress depended on the development of an urban-oriented federal highway system. They claimed such a project would bring widespread prosperity—prosperity, at least, as measured with new tools of aggregate analysis such as gross national product (GNP), which understood prosperity in terms of the newly invented conceptualization of "the economy" as a bounded and measurable arena of political management. As H. S. Fairbank, the Federal Bureau of Public Roads' Chief Information Officer, summed it up in 1936, the purpose of a new federal highway system was to recompose "the economic and social structure of the nation" by establishing "direct connections" between major metropolitan areas, spurring the growth of the "national economy." Taken with ideas about the significance of GNP and productive metropolitan space, elected representatives and the public at large agreed with the basic bureaucratic plan, which became the first legal instantiation of the interstate highway system in the Federal-Aid Highway Act of 1944.[13]

The problem then became financing. The federal government needed a source of capital to build the interstate system. A 1938 Gallup poll found that 81 percent of Americans answered "no" when asked if they would pay tolls of half a cent per mile to fund national highway construction. But even if they had supported toll financing, officials at the Bureau of Public Roads identified another issue: given traffic patterns at the time, they could locate only 172 miles within the envisioned interstate system that could theoretically sustain traffic heavy enough to pay for construction with toll revenue. Still, Gallup polling found that 50 percent of Americans felt the state of the nation's highways was "poor" or merely "fair," with only 10 percent answering "excellent." Support for the general outline of the interstate highway plan was clear. The administrative consensus that a national highway system, even though costly to build, would boost the nation's overall economic productivity lodged firmly in the halls of power. That consensus endured through the immediate postwar years; Eisenhower proclaimed in his annual budget message of 1954 that developing the interstate highway system was a key means of enhancing "interstate commerce" and national productivity.[14]

Yet the scale of the interstate highway system and the political economy of conservatism in the 1950s meant that the problem of national debt had to be tackled before administrators and

[12]On indebtedness to private interests and profit-seeking creditors, see Jenkins, *Bonds of Inequality*, 23–4; and Glass, "Schooling Suburbia," 62–4. On the possibilities of more direct financial methods of state building provided by excise taxes, see Zelizer, *Taxing America*, 55–61.

[13]On the invention of the economy and its political management, see Timothy Mitchell, *Carbon Democracy: Political Power in the Age of Oil* (Brooklyn, 2011), 109–43, 176. The early call to remap the nation via highway development came from H. S. Fairbank, Chief of Information Division, Bureau of Public Roads, Address at the 22nd Annual Convention of the American Association of State Highway Officials, San Francisco, CA, 1936, pp. 3–4, 7, box 1, entry 12A, Office Files and Correspondence Concerning Particular Bureau Activities, Records of the Bureau of Public Roads, RG 30, National Archives and Records Administration, College Park, MD [hereafter NARA]. The bureaucratic plans cohered in two key reports that prefigured the 1944 act: *Toll Roads and Free Roads* (Washington, DC, 1939) and *Interregional Highways* (Washington, DC, 1944). See also Wells, *Car Country*, 269–74.

[14]Gallup Organization, Gallup Poll #1938-0113: War Debts/Automobiles/Roosevelt, 1938, Roper #31087097, version 3, Gallup Organization, Cornell University, Ithaca, NY: Roper Center for Public Opinion Research, DOI: 10.25940/ROPER-31087097; *Toll Roads and Free Roads*, 1–5, 13–5; Wells, *Car Country*, 196; Gallup Organization, Gallup Poll #1952-0492: Politics/Armed Forces, 1952, ROPER-31087476, version 4, Gallup Organization, Cornell University, Ithaca, NY: Roper Center for Public Opinion Research, DOI: 10.25940/ROPER-31087476; Dwight D. Eisenhower, "Annual Budget Message to the Congress: Fiscal Year 1955," Jan. 21, 1954, *The American Presidency Project*, https://www.presidency.ucsb.edu/documents/annual-budget-message-the-congress-fiscal-year-1955 (accessed Jan. 30, 2022).

legislators could move legislation forward. Just as ideas about GNP had shaped the cartographic design of the interstate highway system two decades earlier, national accounting concerns now influenced the interstate system's financial design. This time, however, it was not GNP that prodded at law makers, but concerns about national debt. The Eisenhower administration, espousing a deficit-averse doctrine of robust economic development *and* balanced budgets under the mantle of "modern Republicanism," began to search for interstate funding mechanisms that did not disrupt its claims about how the government should spend money—or rather, how the government should *not* spend money. This was a difficult task: the administration's $27 billion projection for the project was a startlingly enormous expenditure. How could Republicans develop such an enormous and costly project while maintaining the image of fiscal responsibility on which they had campaigned? The problem threw Republicans into political somersaults as they worked to articulate their state building desires within the boundaries of their own anti-statist and spending-averse commitments.[15]

Some of those somersaults came on display when Vice President Richard Nixon delivered the Eisenhower administration's first pitch for the interstate highway project to the 1954 National Governors Association Conference in upstate New York. The conference was a stuffy, masculine affair reflective of 1950s American politics. Nixon opened with typical pleasantries, complimenting New York Governor Thomas Dewey on the scenic upstate landscape and noting how glad he was to work with the men in attendance. Nixon was glad, too, of the opportunity to "renew acquaintances" with the "First Ladies of the States," many of whom were seated directly in front of him. The view they provided, Nixon told his audience, was a welcome "reward" for making the trip to the conference. When Nixon regained his focus, he posed a simple question to the crowd: "Where is the United States going, and by what road?" The metaphor was apt: his task was to explain the Eisenhower administration's plan for state building and economic exchange and the role it envisioned for the interstate highway system within that plan.[16]

Nixon refracted the capitalist fears and aspirations that comprised Cold War America as he framed the Eisenhower administration's interest in interstate highway development. A forked path supposedly loomed ahead in the nation's progress. Turn one way, and the nation would lose itself down what the Chamber of Commerce had taken to calling the "back road to socialism." Turn the other way, and the nation could find socialism's antipode, "free enterprise." Politicians like Nixon and powerful interest groups like the Chamber of Commerce made clear that it was up to men like those gathered at the Governors Conference to ensure that the United States chose the right way forward. And the right way, as far as the Eisenhower administration was concerned, was via the interstate highways. Nixon called for "a grand plan for a properly articulated [highway] system," an ambition that he said must receive "top priority" in the federal government's "planning." Depicting the limits of American automotive transportation, Nixon pulled no punches. Going on at length, he explained that the current state of the nation's "highway net" was "inadequate locally, and obsolete as a national system." Existing highways were an anachronism; they had "just happened," without the foresight of centralized political and economic planning. As a result, in his telling,

[15]The Eisenhower Administration's aversion to debt and its concerns with efficient governmental management came on full display in Eisenhower's first State of the Union Address and continued to shape the executive branch's rhetoric and ambitions. See Dwight D. Eisenhower, "Annual Message to Congress on the State of the Union," Feb. 2, 1953, *The American Presidency Project*, https://www.presidency.ucsb.edu/documents/annual-message-the-congress-the-state-the-union-16 (accessed Jan. 30, 2022); Kim Phillips-Fein, *Invisible Hands: The Making of the Conservative Movement from the New Deal to Reagan* (New York, 2009), 56, 166–7; Kruse, *One Nation Under God*, 87; and Glickman, *Free Enterprise*, 149–51.

[16]"Address of Vice President Richard Nixon to the National Governors Association Conference, Lake George, New York, July 12, 1954," p. 1, box 1, entry 63, Records Relating to National Highway and Defense Highway Programs, 1940–1955, Records of the Bureau of Public Roads, RG 30, NARA.

they were “haphazard,” “completely arbitrary,” and suitable only for “local movement at low speeds.” They would not do for the dawning “age of transcontinental travel.”[17]

It was time, Nixon made clear, for the federal government to revamp the nation’s outmoded highways. Despite the costs involved, this was to be the path opposite the “back road to socialism.” The federal government had recently appropriated $500 million for highway spending. But this, Nixon argued, failed to scratch the surface. Progress demanded far deeper alterations of the American landscape. He called for a $50 billion spending package that, over a ten-year construction period, might make a “good start” on sufficiently reconfiguring the nation’s highway infrastructure. In addition to maintaining and improving existing highways, a $50 billion appropriation that was sufficient to commence the interstate highway project, still nothing more than the statutory plan outlined in the Federal-Aid Highway Act of 1944. The puzzle for Nixon, as he described highway problems and presented solutions, lay in justifying federal action within the conservative political framework that had sent Eisenhower to the White House and, increasingly, gripped national values in the 1950s. Nixon warned against creating “a blueprint for a regimented economy,” yet maintained that the nation needed a centralized “vision” and “comprehensive plans” for the structure of its economic future.[18]

If the magnitude of the state building endeavor appeared incongruent with the era’s conservative rhetoric, Nixon deflected attention from the scale of the proposed federal spending and instead emphasized the functions, both symbolic and material, of such spending. Highway development and the capital flows it depended upon could be immutably capitalist and decidedly American, refuting communist ideology in political and economic terms. With the right choices, Nixon claimed, a national highway system would reflect an “American philosophy of government … rooted in individual rights and obligations.” A national highway system, in fact, would be not an emblem of the kind of statism associated with socialism and communism, but rather a tool for the development of a contrasting political economy—and a weapon in America’s Cold War arsenal. Gridding out the United States from border to border and coast to coast, the new national highway system would be nothing less than a beacon of capitalist American state building; it might well thwart “the communist conspiracy” supposedly intent on scuppering the United States with “internal subversion.” Spending $50 billion on highway development, Nixon averred, was a cheap price to pay to “meet that threat,” if its design and construction advertised “the superiority of our form of government” and especially if its infrastructural outcomes helped produce a national economy that was not “fat and static,” but rather “dynamic and expanding.”[19]

Even as he indulged in Cold War abstractions, Nixon revealed that the manner in which the federal government financed and constructed the interstate highway system mattered. It mattered not only in terms of getting the massive project underway, but also in terms of the conservative postwar aspirations to which Nixon turned his gaze. If his dramatization of statism and its dangers verged on hubris, it allowed him to present the beginnings of a plan for state building that could mobilize support for a project that Republicans might otherwise see as dangerously akin to the very governmental practices to which they objected. The key was

[17]Chamber of Commerce of the United States of America, *Socialism in America* (Washington, DC, 1950), 2; “Address of Vice President Richard Nixon,” 3–4. See also Matthew D. Lassiter, “Political History Beyond the Red–Blue Divide,” *Journal of American History* 98, no. 3 (Dec. 2011): 760–4; and Glickman, *Free Enterprise*, 15–6.

[18]“Address of Vice President Richard Nixon,” 2–3. For a conceptual understanding of planned economies in this period, see James C. Scott, *Seeing Like a State: How Certain Schemes to Improve the Human Condition Have Failed* (New Haven, CT, 1998). For perspectives more closely tethered to United States history, see David Ekbladh, *The Great American Mission: Modernization and the Construction of an American World Order* (Princeton, NJ, 2010); and Amy C. Offner, *Sorting Out the Mixed Economy: The Rise and Fall of Welfare and Developmental States in the Americas* (Princeton, NJ, 2019).

[19]“Address of Vice President Richard Nixon,” 2, 5–6.

to find fiscal mechanisms that diverged from the "excessive taxation" conservatives assailed and converged with the spirit of "free enterprise" that had long marked their attacks on the New Deal and its legacy.[20]

"Financed Outside the Budget": Modern Republicanism Turns to the Market

For the Eisenhower administration, the interstate highway system's development hinged on the design of a politically acceptable funding mechanism capable of making capital into pavement. This, in turn, hinged on the men—and they were all men—put in charge of designing and operating the fiscal machinery. Only those who embodied the notion of free enterprise sufficed. As the Chamber of Commerce put it, the conservative future depended on leaders who understood that a "free-market system can be made to coordinate more efficiently, and do a generally better job, if government officials are given more power—power to substitute the determination of their own judgement for the determination of complex, interrelated market processes." Officials, in other words, had to become market actors, and state plans had to become market directives. The first step in this scheme was to position a new cadre of state builders who could put such ideas into action; only then could Americans be assured of freedom and prosperity. The administration set about selecting the best men it could find from the world of business to transform its vision of the interstates into fiscal and physical infrastructure.[21]

Shortly after Nixon's address to the Governors Conference in 1954, the Eisenhower Administration formed the President's Advisory Committee on a National Highway Program, known as the Clay Committee after its chairman, Eisenhower's longtime confidante, Lucius Clay. Clay focused on selecting his committee men "from private business," and they represented a range of corporate interests. Stephen Bechtel, president of the Bechtel engineering and construction company; S. Sloan Colt, president of the Bankers Trust Company; and William Roberts, president of Allis Chalmers Manufacturing Company, guided the planning process. Labor had some representation too, with David Beck, president of the International Brotherhood of Teamsters, joining in. Observers did not have to look very hard to see how highway development and business opportunities entwined on the committee. One could easily imagine teamster truckers traveling highways built by large engineering and construction firms like Bechtel's with the help of Allis Chalmers's earth-moving equipment. And alongside these on-the-ground interests, finance capitalism received considerable representation: besides Colt, whose bank traded heavily in government securities, Clay sat on the board of the Marine Midland Trust Company and Bechtel on the board of the JP Morgan Company. These men knew exactly how profitable bonded finance could be for the lending institutions they managed.[22]

If profit motivated these newly minted state builders as they took the lead on the interstate highway project, that was—from the Eisenhower administration's perspective, at least—a

[20] Taft, "Progress Through Liberty," 421–4. On the post–World War II adaptation of the New Deal state building framework, see Smith, *Building New Deal Liberalism*, 232–57; and Jonathan Levy, *Ages of American Capitalism: A History of the United States* (New York, 2021), 462–87. On the slogan "free enterprise" in conservative attacks on the New Deal, see Glickman, *Free Enterprise*, 144–51, 157–66.

[21] "Address of Vice President Richard Nixon," 7; Chamber of Commerce of the United States of America, *The Drive for a Controlled Economy via Pale Pink Pills* (Washington, DC, 1949), 4; Glickman, *Free Enterprise*, 151–7, 183, 241.

[22] Press Secretary James C. Hagerty, "Press Release, September 7th, 1954," box 1, entry 63, Records Relating to the National Highway and Defense Highway Programs 1940–1955, Records of the Bureau of Public Roads, RG 30, NARA; C. D. Curtiss to Francis Case, Dec. 17, 1954, box 1, entry 6-C, General Correspondence and Related Records 1951–1955, Records of the Bureau of Public Roads, RG 30, NARA; *Congressional Record*, 84 Cong., 1st sess., July 27, 1955, 11691. See also Jean Edward Smith, *Lucius D. Clay: An American Life* (New York, 1990), 617–21. The composition of the Clay Committee reflected a broader trend in the Eisenhower Administration, which was predominated by men with overt business interests. See Kruse, *One Nation Under God*, 84–5.

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positive reflection of America's path toward a different kind of state building than that represented by communism, or at least by the New Deal. And the administration made clear that these new state builders did, indeed, lead the way. When Eisenhower also formed an "interagency committee" composed of government bureaucrats to study highway planning, its members were told to play second fiddle. The interagency committee included representatives for the director of the budget, the chairman of the council of economic advisors, the secretary of the treasury, the secretary of defense, and the secretary of commerce. But as internal memoranda on bureaucratic procedures made clear, they served only "in an advisory capacity to the Clay Committee." Such empowerment of officials drawn from the world of business also extended to Francis V. du Pont, scion of the du Pont family whose vast business interests had long spilled over into conservative activism. Brought into the Eisenhower administration as a political favor following his prolific election fundraising, du Point oversaw interstate development first as Commissioner of the Bureau of Public Roads and then as a Special Assistant to Secretary of Commerce Sinclair Weeks.[23]

Like other business leaders who became state builders within the Eisenhower administration, du Pont represented the change he wished to see in government. He found it "most gratifying" to observe "the difference in the caliber of men" Eisenhower appointed, in contrast with the officials who had populated the administrations of Franklin D. Roosevelt and Harry Truman.[24] "New Deal 'do-gooders'" were out; businessmen were in. Du Pont had worked hard as a Republican Party operative to achieve just such a modification within federal officialdom, and he embodied the paradoxes that followed—paradoxes that shaped the interstate highway project. As a conservative fundraiser and activist, he had long worked to unravel the forms of taxation, governance, and state building associated with the New Deal. But in his new role as a planner of federal infrastructure—quite literally, a state builder—he had to navigate the competing impulses that filled the administration as its officials searched for methods by which to deliver a national infrastructure project while avoiding the economic and administrative practices against which they were arrayed.[25]

With the complexities of financing front and center, the Clay Committee led the Eisenhower administration's search for capital for the interstate project. It held hearings in which it asked twenty-one highway-related organizations for their opinions on the interstate system and for their preferred methods of funding its construction. The hearings began on October 7, 1954, a few weeks before Democrats took both chambers of Congress in the midterm elections. Each group that testified supported improved national highways. But there was little agreement about how the federal government should fund them. Some favored direct application of tax revenue via a pay-as-you-pave financing structure, while others called for ending all direct federal taxation and replacing it with state taxes or borrowed money. What little agreement did exist amounted to a general aversion to raising taxes. Coupled with the Eisenhower administration's broader fiscal impulses, it came as little surprise when the committee decided that bonded debt offered the clearest path through the welter of conflicting opinions it heard from highway user groups. Bonds could deliver a large pool of borrowed money up front for the interstate project and avoid the need to raise taxes or impose new ones to cover costs. Although bonds burdened taxpayers with debt service payments, the cost of this interest remained largely out of sight, felt

[23]Oscar H. Nielson to Henry S. Bridges, Oct. 13, 1954, box 1, entry 6-C, General Correspondence and Related Records 1951–1955, Records of the Bureau of Public Roads, RG 30, NARA; Francis V. du Pont to Thomas Dewey, Jan. 23, 1953, box 4, file 26, Political Correspondence, Francis V. du Pont Papers, Hagley Museum and Library, Wilmington, DE [hereafter du Pont Papers]; Francis V. du Pont to Thomas Dewey, Feb. 13, 1953, box 4, file 26, Political Correspondence, du Pont Papers. See also Rose and Mohl, *Interstate*, 70. On the du Pont family's business and political endeavors, see Phillips-Fein, *Invisible Hands*.

[24]Francis V. du Pont to Harold E. Stassen, Nov. 24, 1952, box 4, file 26, Political Correspondence, du Pont Papers.

[25]Irénée du Pont to Francis V. du Pont, Sep. 24, 1951, box 4, file 23, General Correspondence, du Pont Papers.

in the pockets of all taxpayers but seen only by those who knew where to look for it in federal statutes that guided borrowing arrangements.[26]

The Clay Committee finalized its bond-based financing plans and completed its policy proposal, *A Ten-Year National Highway Program: A Report to the President*, just as the new Democratic congressional majorities took office in 1955. The committee's report called for completion of the interstate highway system over the next ten years at a cost of $27 billion. It recommended that the federal government provide $25 billion of this total, leaving a balance of $2 billion to the states. The committee, concerned only with the federal aspects of the program, offered "no suggestions" for how states should raise their share. And when it came to financing the federal share, the committee looked to private coffers for the majority of the capital. The proposal called for the creation of a "Federal Highway Corporation" to facilitate the federal government's fiscal contributions. The corporation would sell bonds amounting to around $20 billion of the $25 billion total federal contribution; when "commercial banks" bought these bonds, they would deliver capital "sufficient to meet [the federal] share of the costs to complete the interstate system." Revenue drawn from existing federal taxes on gasoline and oil would "be pledged in the first instance for payment of the interest and principal" on these bonds, and remaining tax revenues in excess of these payments would be applied to interstate development to make up the difference of the total $25 billion appropriation. Seeking to build every advantage into this new bond market, the committee advised that the highway corporation should hold "a mandatory call" on the United States Treasury "for loans up to … $5 billion outstanding at any given time, to assure investors of ability to meet obligations." Those "commercial banks" could rest assured that their investments were safe. Should excise tax revenue ever fail to meet bond payments, a bailout drawn from general federal tax revenue would make up any losses. And lenders would do well: the committee proposed an interest rate fixed at 3 percent amortized over 30 years, yielding a profit of $11.5 billion in debt service costs (Figure 1).[27]

The Clay Committee's bond plan thus followed a simple two-step process, borrowing capital from banks and then using tax revenue to pay back the borrowed sum plus interest as interstate construction proceeded. The bond plan had the advantage of delivering capital quickly, but it mixed tax collection and expenditure with a profit-producing obligation to private lenders. On this point, controversy began. Because tax dollars secured the bonds, the bond plan made it taxpayers' responsibility not only to pay for the interstate highway project, but also to pay the $11.5 billion in interest the bonds demanded—money that went nowhere near actual highway construction. Why use tax dollars to retire bonds? Why not use taxes to pay directly for highway construction? As one reporter noted, bonds "cost a lot of interest money that ought to go into the building of roads instead of into bankers' repositories." Opposition to the bond plan formed quickly along partisan lines, with newspapers reporting that Congressional Democrats "had vetoed [it] in advance." Eisenhower attempted to bridge the divide, playing the part of a moderate realist and telling the press that "there was nothing partisan about road building," though the very presence of such an assertion suggested its inaccuracy. Attempting to short-circuit Democratic opposition, Eisenhower and Clay hosted a bipartisan summit at the White House, ostensibly to hear contrasting proposals. Journalists, however, discovered that "no major changes would be permitted in the [highway legislation]" before Eisenhower forwarded it to Congress."[28]

[26]President's Advisory Committee on a National Highway Program, *Hearings, October 7th–8th, 1954*, box 1, entry 63, Records Relating to National Highway and Defense Highway Programs, RG 30, NARA.

[27]*A Ten-Year National Highway Program*, xiii, 23–5, 29.

[28]William H. Stringer, "Democrats Criticize Plan to Finance Highways," *Christian Science Monitor*, Feb. 23, 1955, 6; Joseph A. Loftus, "Ike Submits Road Plan 'Vetoed' by Democrats," *Atlanta Constitution*, Feb. 23, 1955, 1, 13; Joseph A. Loftus, "President Fails to Impress Democrats with Road Plan," *New York Times*, Feb. 22, 1955, 1, 10; Robert J. Donovan, "Highways Message Today; Democrats Get a Preview," *New York Herald Tribune*, Feb. 22, 1955, 1, 15; "Which Road Is Right?" *St. Louis Post-Dispatch*, Feb. 23, 1955, 2B.

FINANCIAL PLAN FOR HIGHWAY PROGRAM

Excess Federal gasoline tax over $623 million annually available for highway program

[In million dollars]

Year	Estimated[1] Federal 2-cent tax less $623 million	Construction expenditures			Bond maturities, years	Annual debt service			Annual excess revenues	Balance
		Total	From revenues	From bond proceeds		Interest 3 percent	Principal	Total		
1956	$527	$1,000	$500	$500	11	--------	--------	--------	$27	$27
1957	567	2,000	500	1,500	13	$15	--------	$15	52	79
1958	611	2,500	600	1,900	15	60	--------	60	−49	30
1959	652	2,700	500	2,200	17	117	--------	117	35	65
1960	694	2,900	500	2,400	19	183	--------	183	11	76
1961	734	2,900	500	2,400	20	255	--------	255	−21	55
1962	777	2,900	500	2,400	21	327	--------	327	−50	5
1963	818	2,900	400	2,500	21	399	--------	399	19	24
1964	860	2,700	400	2,300	22	474	--------	474	−14	10
1965	898	2,500	365	2,135	22	543	--------	543	−10	None
1966	943	--------	--------	--------	--------	607	--------	607	336	336
1967	983	--------	--------	--------	--------	607	$500	1,107	−124	212
1968	1,024	--------	--------	--------	--------	592	--------	592	432	644
1969	1,063	--------	--------	--------	--------	592	--------	592	471	1,115
1970	1,099	--------	--------	--------	--------	592	1,500	2,092	−993	122
1971	1,141	--------	--------	--------	--------	547	--------	547	594	716
1972	1,171	--------	--------	--------	--------	547	--------	547	624	1,340
1973	1,218	--------	--------	--------	--------	547	1,900	2,447	−1,229	111
1974	1,257	--------	--------	--------	--------	490	--------	490	767	878
1975	1,294	--------	--------	--------	--------	490	--------	490	804	1,682
1976	1,339	--------	--------	--------	--------	490	2,200	2,690	−1,351	331
1977	1,381	--------	--------	--------	--------	424	--------	424	957	1,288
1978	1,422	--------	--------	--------	--------	424	--------	424	998	2,286
1979	1,465	--------	--------	--------	--------	424	2,400	2,824	−1,359	927
1980	1,504	--------	--------	--------	--------	352	--------	352	1,152	2,079
1981	1,550	--------	--------	--------	--------	352	2,400	2,752	−1,202	877
1982	1,588	--------	--------	--------	--------	280	--------	280	1,308	2,185
1983	1,631	--------	--------	--------	--------	280	2,400	2,680	−1,049	1,136
1984	1,671	--------	--------	--------	--------	208	2,500	2,708	−1,037	99
1985	1,706	--------	--------	--------	--------	133	--------	133	1,573	1,672
1986	1,745	--------	--------	--------	--------	133	2,300	2,433	−688	984
1987	1,785	--------	--------	--------	--------	64	2,135	2,199	−414	570
Total	37,118	25,000	4,765	20,235	--------	11,548	20,235	31,783	--------	--------

[1] Motor fuel and lubricating oil taxes levied by Federal Government—estimated by Bureau of Public Roads.

Figure 1. The Clay Committee's proposed debt service schedule. From *A Ten-Year National Highway Program* (Washington, DC, 1955), 25.

Democrats used the summit to call attention to their issues. The bond proposal, they argued, was not only costly but appeared to be "financed outside the [federal] budget" by using the proposed federal highway corporation to remove bonded debt from congressional oversight and national debt accounting. In an era obsessed with the national debt—which Eisenhower had pledged to reduce—this was not only a concerning analysis of the bond plan, but a shrewd political play for Democrats. Eisenhower tried to claim that the bonds "would be a debt," but not be "part of the national debt," but how could this be? "An independent government agency is still a government agency," pointed out Senator Harry Byrd (D-VA), Chairman of the Senate Finance Committee. And security for the bonded debt was tax money, like all the other money tallied up in the national debt. Senator Albert Gore, Sr. (D-TN), Chairman of the Senate Public Works Subcommittee on Roads, wondered how the Eisenhower administration could possibly

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get away with "spending the money as proposed and say it was not increasing the debt." Another Congressional Democrat called the bond plan "sleight-of-hand financing," and lambasted its steep cost in interest payments. Senator Dennis Chávez (D-NM), Chairman of the Senate Public Works Committee, made the Democratic position clear: his party "prefer[ed] to build roads with the interest money." Legislation that extracted tax revenue for highway construction, in his view, should be spent only on highway construction itself, not funneled to banks in debt service payments for borrowed money.[29]

At the conclusion of the White House summit, a Republican Party spokesman noted that Eisenhower, Clay, and their Republican allies had "failed to shake strong Democratic opposition," an admission he followed, somewhat absurdly, by stating that the summit had nonetheless been "harmonious and non-political." Helped by pronouncements like those, the Eisenhower administration kindled the myth of consensus that has long accompanied the interstate story—and 1950s politics in general. Eisenhower forwarded the Clay Committee's proposal to Congress on February 22, 1955. The administration was ready to undertake a record-setting public works project, and it aimed do so without raising taxes. The functional capacity of modern Republicanism—promising state building absent conservative fears of controlism—was on the line. According to Chávez, however, the Clay Committee's plan was "so full of holes it would sink" as soon as it reached the open waters of congressional debate.[30]

"More than a Pledge": Congress Debates Debt and Taxation

Dennis Chávez co-sponsored the Clay Committee's proposal as S. 1160 in the Senate, where it became known as the "administration bill." While his Democratic co-sponsorship signaled bipartisan interest in interstate highway development, newspapers immediately pointed out that Chávez was "already on record as opposing the bond issue feature." This was the crux of the matter confronting Congress and, harking back to the Clay Committee's hearings, the nation at large: nearly everyone wanted the interstate highway system, and nearly nobody could agree on how to finance it. The inseparability of financing from public works construction and the vast cost of the interstate highway project meant that disagreement over capital appropriation far outweighed more abstract shared aspirations for the interstate system. In Congress, the administration bill had to pass through hearings held by Gore's Senate Subcommittee on Roads, which fell under the auspices of Chávez's Senate Committee on Public Works. Gore could not "conceive that Congress [would] enact such a measure" as the bond financing proposal. He soon began hearings. If taxes were collected to pay down bonds—capital that ended up in "bankers' repositories"—Democrats wanted to know why that was a better use of the money than spending taxes directly on highway construction.[31]

Administration officials cycled through congressional hearings, building their case for paying for the interstate system with money borrowed from private interests. They had to substantiate two central claims. First, that bonded debt was its own conceptual and functional entity, separate from national economic accounting procedures that measured the total national debt

[29]"Democrats Not Impressed by Ike Road Plans," *Minneapolis Morning Tribune*, Feb. 22, 1955, 3; Donovan, "Highways Message Today," 1, 15; Loftus, "President Fails to Impress Democrats with Road Plan," 1, 10; "A Controversial Project," *Boston Globe*, Feb. 23, 1955, 12; "The President's Highway Program," *Philadelphia Inquirer*, Feb. 23, 1955, 20; "Road Plan Outlined to Congress," *Los Angeles Times*, Feb. 22, 1955, 32; Robert J. Donovan, "101-Billion Road Plan Offered by Eisenhower," *New York Herald Tribune*, Feb. 23, 1955, 1, 27.

[30]"Ike's Road Plan Foes Unyielding," *Atlanta Constitution*, Feb. 22, 1955, 1; Donovan, "Highways Message Today," 1, 15; "Which Road Is Right?" 2B; "Democrats Not Impressed by Ike Road Plans." See also Wendy Wall, *Inventing the "American Way": The Politics of Consensus from the New Deal to the Civil Rights Movement* (New York, 2008).

[31]William Knighton, Jr., "Eisenhower Asks Passage of Roads Plan," *Baltimore Sun*, Feb. 23, 1955, 1, 6; Stringer, "Democrats Criticize Plan to Finance Highways," 6.

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in terms of revenue collection and expenditure. Second, that such bonded debt—a pool of capital delivered up front—was worth its cost in interest payments. The two claims were interrelated, and together comprised the vision of market-based social provisioning Eisenhower's officials sought to advance.

Francis du Pont, now the secretary of commerce's special assistant for highway development, spoke plainly to Congress regarding the fiscal procedures the administration bill outlined. Du Pont had arrived on Capitol Hill with a reputation as a staunch conservative crusader. He built his bona fides from the 1930s onward with claims that New Deal policies led to "socialism" via "deficit financing." Now, he claimed, the Democratic Party was "purely interested in perpetuating its control of government in order to seize our economic machine and the production thereof." The stakes were high: the Republican Party, he said, "must regain control" if Americans were to "remain a free people." Otherwise, "the livelihood and liberty of all citizens will be taxed into disappearance." The overarching goal of the Clay Committee's plan and the administration bill, du Pont made clear, was to "issue bonds that would not be within the statutory debt limit" set by Congress. In other words, the first purpose of the bonds was to separate the cost of the interstate project from the national debt and place it instead within the parameters of market exchange, which he and his allies presented as a distinct and freedom-filled space.[32]

The procedure du Pont outlined looked like a suspicious and possibly illegal evasion of national debt accounting. Yet Attorney General Herbert Brownell gave his "wholehearted approval" to the administration bill's provisions. In his view there was nothing to hide: the bonds were detached from the national debt, and this was no cause for concern. But why was the Eisenhower administration following this economic path? Lucius Clay told Congress that his committee had almost immediately ruled out "deficit financing," by which he meant raising taxes to pay directly for highway construction, absent bonds. Perhaps this was unsurprising. Members of the Clay Committee came from industries that stood to profit from a bond issue; the committee's bankers anticipated debt service payments, and the committee's equipment manufacturers might see contracts and orders sooner if a pool of bond capital was available up front. Furthermore, Clay explained that bonds offered "a more conservative way" of raising capital and producing infrastructure. Bonds operated on the terms of capitalistic exchange, and Clay told Congress that his committee had "complete confidence in the ability of the market" to carry out the tasks of state building. The message was clear: the marketplace should govern funding for public works.[33]

Submerging public works in the marketplace helped Eisenhower's officials elaborate their theory of national debt avoidance. National debt, Secretary of Commerce Sinclair Weeks told the Senate, accounted for the relation between tax revenue and expenditure. The Clay Committee's bond proposal involved the movement of tax dollars in the form of debt security. But the profit incentives bonds contained altered the nature of the credit and debt in question. The flow of capital produced by bonds, Weeks argued, reflected a marketplace relation between investors and their expectations: "You buy a bond and you are put on notice when you buy the bond that you can expect the revenue from the … gas tax to pay the interest on the bond and to amortize it." Bonds yielded profit in the form of interest payments; direct taxes obviously did not. Bonded debt, therefore, replaced taxation with profit-motivated transactions between

[32]Francis V du Pont, untitled newspaper clipping, *GOP News*, Jan. 17, 1950, box 11, Scrapbook 1949–1961, du Pont Papers; "F. V. du Pont's Radio Speech, Georgetown, Delaware, August 25, 1952," folder 39, box 5, Speeches of Francis V. du Pont, du Pont Papers; U.S. Congress, House of Representatives, Committee on Public Works, *National Highway Program: Hearings Before the Committee on Public Works*, *Part 1*, 84 Cong. 1st Sess., Apr. 19, 1955, 96.

[33]U.S. Congress, Senate, Committee on Public Works, *National Highway Program: Hearings Before a Subcommittee of the Committee on Public Works*, 84 Cong., 1st Sess. Mar. 29, 1955, 655; Senate Committee on Public Works, *National Highway Program*, Mar. 11, 1955, 395–6.

buyers and sellers. This, Weeks argued, rendered the tax dollars involved in bonded finance different and separate from those tallied up in the national debt.[34]

If Eisenhower's officials felt confident in their justifications of bonded finance and its removal from national debt accounting, they still had to offer evidence that there was a market for the debt they proposed. On this point, ironically, they snagged themselves on their own claims of national debt avoidance. The interstate highway bonds, Weeks noted, were not "guaranteed by the full faith and credit of the United States Government." This was one more reason they should "not be listed as part of our national debt." But the absence of a federal guarantee posed problems for marketability, given that tax dollars nonetheless provided the capital at the core of the proposal. How could investors protect themselves against a default, given this structure and its absence of a guarantee? If gasoline taxes failed to meet obligations, what ensured expectations? Weeks turned to the administration bill's inclusion of a "hedge," by which he meant the highway corporation's proposed authority to draw $5 billion bailouts from the Treasury. General taxpayers were the lenders of last resort. But why not use general revenue in the first place, or why not use bonds that *were* guaranteed by the full faith and credit of the federal government—in other words, typical Treasury bonds? Because, Weeks argued, such plans amounted to "deficit financing," and on this point he steadfastly represented the administration's position: the interstates were not to "be thrown into the general program" of taxation tallied up in the national debt like a New Deal program.[35]

Was the move to the market worth the cost of bonded debt? Seeking further explanation regarding why taxpayers should embrace the $11.5 billion in interest that the proposed interstate bonds carried, Congress called on George Humphrey, Secretary of the Treasury. Humphrey deployed the standard administration lines. He claimed that the proposed highway corporation was designed to pay off the bonds itself, using the phrase "self-sustaining" to describe the nature of the corporation's activity. This aided the administration's firm commitment to "a less oppressive tax system." The administration's goal was to build the interstates while "cutting back the volume of Federal expenditures … [and] the load of general taxes, which weighs so heavily on the economy." Once again the magic of bonds was on display: they could deliver a sudden infusion of capital while taxes remained technically unchanged. Over the long run, as critics argued and Humphrey himself conceded, "it would cost more to issue the bonds" than to fund the interstates through "public debt obligations," meaning direct tax revenue expenditure. But bond interest, Humphrey averred, was not a burden but merely the price of remaking society into one composed of buyers and sellers.[36]

Interest, in other words, represented the worthwhile cost of moving the statist complex of taxation, revenue, and expenditure into the supposedly freedom-spawning marketplace. According to Humphrey, the cost of interest was "not … a waste"—it pushed the economy onward, carrying particular social arrangements with it. The profit-tethered nature of credit, debt, and interest reflected the American tradition of free enterprise—or so proponents of this notion of capitalism asserted. These facets of financial life reflected arguments that underpinned the Cold War and the political economy of the Eisenhower administration. "Instead of living under the orders of a dictatorship," Humphrey explained, "we live under a system of incentives. The incentive is a money incentive." Such an arrangement, in this line of reasoning, produced a crisper system of use and payment for public works than taxation could provide. The hope of profit incentivized lenders to buy bonds. They were spurred to make such purchases with the expectation of interest accruals from interstate users who, apparently voluntarily, made the bonds profitable as they used the highways and paid their excise taxes—actions

[34]House Committee on Public Works, *National Highway Program, Part 1*, Apr. 18, 1955, 23.

[35]Ibid., 23–5.

[36]Senate Committee on Public Works, *National Highway Program*, Mar. 22, 1955, 539–41.

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they, too, were incentivized to take by whatever profits they chased out along the nation's new highways.[37]

To facilitate this kind of economy, the nature of the state had to change, as well: Humphrey imagined the government operating like a business. He aspired to a mode of governance in which there was "no difference" between the activities of the state and "the kind of things that private corporations do," especially regarding borrowed money. Among Humphrey's allies, it was a welcome move. "Amortizing capital," one Republican senator pointed out, was a successful principle, "whether used by private enterprise or by … government." Debt was profitable for whomever owned it. And the interest bonds carried, in Humphrey's blunt summation, was "worth it" because it amounted to "payment for the privilege of getting something now in order to have the benefit of its use while you are paying for it," and "the American people pay a lot of interest" for that privilege. In this sense, he argued, bonds offered a nation-sized instantiation of "consumer credit" that proliferated in 1950s America.[38]

When it came to infrastructural investment, however, a debt-based model clearly posed problems. As one congressperson noted, a point could come when not just some but "all of the gas tax" might go into paying down debt. How would the government pay for ongoing highway development? Humphrey was relentless: "You have to do that by a similar process to this," he replied. "You will have to raise part of the money and borrow part, and keep doing it." Another congressperson pointed out that over time this arrangement seemed destined to make it "harder … to balance the budget, because of all the interest." But this did not appear to trouble Eisenhower's officials. If debt begot debt, that simply spurred a financialized and privatized national economy in which exchange among market actors provisioned society with its wants, free from dictatorial taxes.[39]

The cost of interest and the social vision surrounding the proposed bond arrangement drew sharp questions from Congressional Democrats. They prodded at the plan for the highway corporation and the bonds it would issue. Humphrey had detailed the Eisenhower administration's scheme in which the highway corporation was to be a "self-sustaining" entity, assuming debt and paying it off separately from the national debt, while convincing bond buyers that the debt they purchased was a safe investment. How could this work in practice? From his position as Chairman of the Senate Public Works Subcommittee on Roads, Gore pointed out that, according to the administration bill itself, revenue for bond retirement came "from appropriations from the Treasury," and the highway corporation controlled no "assets or other income." Never mind the $5 billion Treasury hedge: the earmarked gasoline taxes themselves moved through the Treasury—a point Weeks had conveniently avoided. How could this arrangement possibly be self-sustaining in the manner Humphrey had indicated?[40]

The question produced a semantic battle as Humphrey explained the relationship the Eisenhower administration envisioned between capital collected from taxpayers and capital borrowed from banks. When pressed, Humphrey conceded that perhaps the proposed highway corporation was not self-sustaining after all: "The word 'liquidating' would be better," he amended. It was "the pledge of the gasoline taxes" that "liquidate[d] these bonds" and separated the highway corporation's activities from the national debt. He then tried to divert attention from the term "appropriation," putting "pledge" in its place. But Gore was unconvinced. Surely bond retirement was "more than a pledge," he countered. The highway corporation had no capacity to raise its own capital; it depended on "an outright appropriation from the

[37]House Committee on Public Works, *National Highway Program, Part 1*, May 16, 1955, 579–81.

[38]Ibid., 579, 600–1; Senator Edward Martin quoted in *Congressional Record*, 84 Cong., 1st sess., May 25th, 1955, 6933; Senate Committee on Public Works, *National Highway Program*, Mar. 22, 1955, 541. On debt in American consumer culture in this period, see Louis Hyman, *Debtor Nation: The History of America in Red Ink* (Princeton, NJ, 2011), particularly ch. 5.

[39]House Committee on Public Works, *National Highway Program, Part 1*, May 16, 1955, 592, 596.

[40]Senate Committee on Public Works, *National Highway Program*, Mar. 22, 1955, 541.

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Treasury of the United States enacted by Congress." Humphrey persevered. The administration bill, he said, provided "for the dedication of certain revenues to certain purposes." This sounded like general revenue earmarking, which was doubtless more than a pledge. Yet still he maintained it was not, and that the administration bill separated the highway corporation and its bonds from general revenue and national debt. Seeking egress from increasingly emphatic counter-arguments asserting that bonds were, indeed, part of the national debt, Humphrey strained to replace with fuzzy phrasing the material reality of the capital movement in question. Eventually, he went so far as to claim that the bonds were not, in fact, a debt at all: they were "an obligation and not a debt within the strict meaning of the word 'debt.'"[41]

Sustained or liquidated, pledged or appropriated, indebted or obligated: Humphrey waged a linguistic campaign that could not, in the end, dodge accounting practices. "I do not want to quibble about words," he eventually declared. In a last effort, he decided he simply wanted to "avoid" getting into "technical meaning" when it came to bonds and debt. All that mattered was that the highway corporation "contain[ed] its own basis for liquidation," and if Gore disagreed, that was simply "a difference of opinion." That difference of opinion, however, proved fatal to the administration bill. Responding to Humphrey's testimony, Hale Boggs (D-LA), Chairman of the House Ways and Means Committee's subcommittee on roads, concluded, rather flatly, that the administration bill did not reflect "sound financing." He objected not only to the cost of interest, but to the changes in governance it appeared to propagate. "If you advocated for this plan for highways," he asked, "why would you not likewise … create Government corporations to do all kinds of things in the Government and keep that out of the national debt limit and mortgage ourselves forever?" His rhetorical question probed the limits of replacing taxes with debt, a substitution that promised to remap the provision of public works and revise the relations binding citizens, private interests, and the state to one another.[42]

Among the loudest voices opposing the administration bill's vision of bonded debt was that of Senator Harry Byrd (D-VA), Chairman of the Senate Finance Committee. Though he was a Democrat, Byrd had a reputation for fiscal conservatism and had long critiqued federal spending. He had frequently broken with his party to vote against New Deal programs, and he opposed the presidential campaigns of Harry Truman and Adlai Stevenson. In contrast, he called Eisenhower's election "the first ray of hope we have had for many years," and he favored the new president's talk of fiscal caution and balanced budgets. He proved, however, to be no more enamored of debt service costs than he was of the New Deal financing plans he had long criticized. The Eisenhower administration's interstate highway planning alarmed him. To begin with, the interstate system represented nothing less than "the longest step yet taken toward concentrating power in the Federal Government." Handing "control of 40,000 miles of our most important roads" to the central state apparatus was a development he felt sure would raise "the iron hand of the federal bureaucracy." And no matter what mechanism the federal government chose to fund the massive project, it would require "permanent indefinite appropriations," locking in place fiduciary relationships that Byrd intended to weigh very carefully.[43]

[41]Ibid., 541–2, 551–2. Humphrey did not elaborate on the terminology that he chose, but he may have been thinking of so-called "moral obligation bonds," which Gail Radford describes as a type of midcentury "financial instrument [that] was essentially a revenue bond secured not only by income from the authority that issued it, but also by some kind of vaguely worded promise." But the fact that Humphrey did not specify this suggests he knew Democrats would find even more cause for concern with such an arrangement, given the terms of the debate. See Gail Radford, *The Rise of Public Authority: Statebuilding and Economic Development in Twentieth-Century America* (Chicago, 2013), 147.

[42]Senate Committee on Public Works, *National Highway Program*, Mar. 22, 1955, 542; U.S. Congress, House of Representatives, *National Highway Program: Hearings Before the Committee on Public Works, Part 2*, 84 Cong., 1st sess., July 12, 1955, 1193.

[43]Ronald L. Heinemann, *Harry Byrd of Virginia* (Charlottesville, VA, 1996), 251, 259, 312–6, 355; Senate Committee on Public Works, *National Highway Program*, Mar. 18, 1955, 497–8, 500; Rose and Mohl, *Interstate*, 78.

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While Byrd's ideological qualms were unsurprising given his general commitments, much of his more precise concern rested on the manner in which the administration bill's use of bonds subverted democratic oversight of the executive branch's use of public revenue. The problem was the administration bill's plan to "remov[e] the Corporation from annual appropriation control by Congress," a striking disruption of oversight, especially given the federal government's responsibility for covering 90 percent of the interstate system's costs. And as per the Eisenhower administration's proposal, Byrd reminded Congress, this federal contribution, now apparently shorn of Congressional management, would come from "a Government Corporation without income or assets" that would "borrow $21 billion … without declaring it a debt." As Humphrey's testimony made clear, there was no mathematical formula or material chain of capital movement to explain this; the metaphysical evasion relied only upon the administration's argument that locating bonded debt in the federal highway corporation rather than in the Treasury constituted its separation from the total national debt. Should Congress play along with such claims and maneuvers? Byrd thought not. "Camouflage it all you please," Byrd told his colleagues: the fact remained that "the bonds issued by this Corporation will be a Federal debt and a general obligation of the Government." The proposed bonded debt warped fiscal democracy by tethering taxpayers to bankers and reducing Congress's oversight role. And in the process, it appeared to remove tax money from standard accounting procedures, distorting the national debt and "creating fiscal confusion and disorder" through the bonded "obligations of the Federal Government and all its citizens" to private lenders.[44]

The administration bill, Byrd concluded, was "incapable of honest Federal bookkeeping and accounting." Recategorizing debt and hiding it away in a "dummy corporation," the bill amounted to the federal government keeping "a dual set of books." Surely Congress could do better: "the least we can do," he argued, "is to keep the books honest and make full disclosure of the obligations we are incurring." Lawmakers, Byrd cautioned his colleagues, must not "avoid financial responsibility by legerdemain" nor "evade debt by definition." Byrd's arguments proved conclusive. Despite the efforts of Eisenhower's officials during the congressional hearings, they hit a wall. Byrd's testimony, said one senator, left the administration bill "as dead as Judas Iscariot." The message was clear: Democrats would not support bonded debt financing. On May 25, 1955, the Senate voted down the administration bill, eliminating bonds as an interstate highway revenue source. The stage was set for excise taxes to pave the way for interstate construction.[45]

"The Road to Fiscal Responsibility": The Promises of the Highway Trust Fund

Although today we travel the "Dwight D. Eisenhower National System of Interstate and Defense Highways," the financial legislation that finally enabled interstate construction in 1956 bore little resemblance to the proposal the Eisenhower administration had sent to Congress the year before. In defeating the administration bill, Democrats claimed they had put "this Nation back on the road to fiscal responsibility" and set about finding a bond-free alternative for financing the interstate highway system. Their plan was to legislate new earmarked taxes on automotive goods to fund interstate construction. Much as Republicans had hoped the interstates might stand as a durable manifestation of their tax-averse state building methods, now Democrats sought to pose the infrastructure project as a model of their contrasting fiduciary ambitions. Some also jumped at the chance to exploit the switch the media perceived between the two major parties. Representative Wright Patman (D-TX), for instance, said he was

[44]Senate Committee on Public Works, *National Highway Program*, Mar. 18, 1955, 497–500; *Congressional Record*, 84 Cong., 1st sess., Jan. 18, 1955, 473.

[45]Senate Committee on Public Works, *National Highway Program*, Mar. 18, 1955, 497–500, 520; *Congressional Record*, 84 Cong., 1st sess., May 25, 1955, 7033.

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"surprised" that Republicans, who were "always talking about fiscal responsibility, sound dollars, sound money," had advocated "the reverse" in the administration bill. He located blame with the Clay Committee for originating the bond plan. The Clay Committee, he argued, "was weighed down with investment bankers, commercial bankers, brokers of Government bonds." Their "first consideration" was "the bankers and what they get out of it," and their proposal reflected nothing more than the interests of profit seekers "looking for more debt paper."[46]

Republicans responded with derision. "Where have you been for the last 20 years on your fiscal responsibility?" asked Representative Leon Gavin (R-PA). "You should have been thinking about fiscal responsibility back in the days when we had the NRA, the WPA, the PWA, the youth movements, the ballet dancers, and the goldfish swallowers." Democrats had never "thought of bringing in a companion tax bill to pay for anything," he charged, meaning earmarked excise taxes, "until this highway legislation was introduced." But the logic of Gavin's accusation was flawed. If the New Deal framework had been as fiscally irresponsible as he suggested—and if Democrats should have deployed companion taxes long before—his rejoinder merely made the case *for* using companion taxes to fund the interstate project. Gavin's comment about companion taxes also conveniently ignored the financial design of the Social Security Act of 1935, which was precisely where Democrats turned as they devised a fiscal mechanism for interstate construction. They called on none other than Secretary of the Treasury George Humphrey, who had argued so concertedly for the merits of bonded debt and interest, to explain the benefits of the Social Security tax model.[47]

The Senate heard testimony from Humphrey in May of 1956, fully a year after the defeat of the Eisenhower administration's bond proposal. In the interim, as the Eisenhower administration suffered at the hands of the national media for failing to deliver on its promises of a new highway system, Humphrey decided that he would "heartily endorse" the Democrats' "pay-as-you-build program" consisting of excise taxation and direct revenue expenditure. The switch could not have been more dramatic: Humphrey departed from every argument he had made the previous year and seemed to jump sides in the partisan battle. Specifically, he recommended that Congress "follow a practice similar to … social security" and collect earmarked taxes from highway users to be "deposited in a special fund." The trust fund would provide the capital required to build the interstate highway system. It was a plan for state building shorn of financialized profit and distilled into a basic relation between taxpayers contributing earmarked excise taxes toward the construction of public works that, in turn, supported the activities from which the excise tax was collected. Even the intractable Harry Byrd, sometimes a critic of earmarking, was convinced. He persuaded the Senate Finance Committee he chaired to support the plan. In doing so, he compromised with his own party, leaving his quibbles with earmarking aside and for the chance to have a stronger legislative hand in determining the increase in taxation and expenditure. On April 27, 1956, the House approved the Federal-Aid Highway Act of 1956, including the Social Security–modeled excise taxes and their Highway Trust Fund, by a vote of 388 to 19. The Senate approved the legislation 89 to 1 on June 26. With veto-proof majorities secure, the bill reached Eisenhower a few days later.[48]

[46]*Congressional Record*, 84 Cong., 1st sess., July 27, 1955, 11691–4.

[47]*Congressional Record*, 84 Cong., 1st sess., July 27, 1955, 11694–5, 11717–8; Social Security Act of 1935, Pub. Law No. 74-271 49 Stat. 620 (1935).

[48]U.S. Congress, Senate, Committee on Finance, *Highway Revenue Act: Hearings Before the Committee on Finance*, 84 Cong. 2nd sess., May 17, 1956, 66; U.S. Congress, House of Representatives, Committee on Ways and Means, *Highway Revenue Act of 1956: Hearings Before the Committee on Ways and Means*, 84 Cong., 2nd sess., Feb. 14, 1956, 25; Ben Kelley, *The Pavers and the Paved: The Real Cost of America's Highway Program* (New York, 1971), 27; Heinemann, *Harry Byrd of Virginia*, 364; *Congressional Record*, 84 Cong., 2nd sess., Apr. 27, 1956, 7221–2; *Congressional Record*, 84 Congress, 2nd sess., June 26, 1956, 10969. The *New York Times*, for

After Eisenhower signed the Federal-Aid Highway Act of 1956 into law on June 29, the federal government prepared to begin collecting revenue with which to build the interstate system. Fiscal year 1957 began on Sunday, July 1. At the stroke of midnight, federal excise taxes on gasoline and diesel rose from two to three cents per gallon, excises on rubber tires rose to eight cents per pound, and trucks weighing more than 26,000 pounds began paying $1.50 per 1,000 pounds of gross weight. These taxes covered 90 percent of interstate construction costs, with the remaining 10 percent coming from the states.[49]

Of course, this arrangement required time to reach peak performance. The most fundamental advantage of bonded capital might have been its immediate availability for construction. Excise taxes, by contrast, needed to add up bit by bit in the Highway Trust Fund until there was sufficient capital to begin construction. As *Newsday* noted, transportation was not yet part of the equation: rather, "for the motorist, the first noticeable effect will be the enactment of the tax increase." This reality reflected the potential downside to excise taxes that Republicans had long opposed. Indeed, the rise in taxes quickly filled headlines: "Fill Your Gas Tank, Buy That Tire Today Before Tax Goes Up," warned the *Boston Globe*. Among those who supported the tax-based system, however, confidence was not misplaced. As the excise taxes accumulated and construction proceeded—opening ever more highway mileage to drivers—revenue grew steadily in the Highway Trust Fund as Americans bought more gasoline, oil, and tires to sustain their automotive existences. While George Humphrey's talk of a "self-sustaining" highway corporation might have been fanciful, the term looked apt when applied to the Highway Trust Fund. The perpetual fiscal motion it established was an almost too efficient tool of state building.[50]

The Highway Trust Fund and the tax system it contained were slated to remain in effect until at least July 1, 1972; along the way, it would fix a powerful fiduciary cycle in place. Its sole job was to accumulate excise tax revenue and pay it back out to cover the federal share of interstate construction costs. Like the Clay Committee's proposal, the initial excise tax financing plan at the core of the 1956 legislation called for a sum of at least $25 billion in federal funds. But the trust fund's structure meant there was no upper limit to revenue collection and expenditure. As long as motorists went about their business, the tax dollars would keep the cycle spinning as revenue earmarked for interstate construction accumulated in the trust fund and transformed into pavement.[51]

Conclusion: The Perils of the Highway Trust Fund

When Democrats succeeded in legislating the Highway Trust Fund and its excise taxes, they ensured the interstate highway project would not join the swelling ranks of post–World War II bond-financed public works projects such as public housing, parks, and waterworks.[52] In avoiding bonds, Democrats avoided tethering taxpayers to billions of dollars in interest payments and thus averted the submersion of state building in financial institutions. Instead, the excise taxes undergirding the interstate highway system saw the federal government building itself confidently and visibly with its own money. Indeed, the interstate highway project concretized a highly legible instantiation of modern American state building that was the

instance, blamed the administration bill's defeat on the "anxious and turbulent" character of its executive branch backers; see "The News of the Week in Review," *New York Times*, July 31, 1955, E1. On earmarking, excise-based tax-and-spend mechanisms, and "special funds," see Zelizer, *Taxing America*, 17–8, 147–78.

[49]Federal-Aid Highway Act of 1956, Pub. Law No. 84-627, 70 Stat. 374 (1956).

[50]"Hike Gas, Tire Tax at Midnight," *Newsday*, June 30, 1956, 2; Harry Stanton, "Fill Your Gas Tank, Buy That Tire Today Before Tax Goes Up," *Boston Globe*, June 30, 1956, 1–2; Senate Committee on Public Works, *National Highway Program*, Mar. 22, 1955, 539–41.

[51]Federal-Aid Highway Act of 1956, Pub. Law No. 84-627, 70 Stat. 374 (1956).

[52]Glass, "Schooling Suburbia," 23–4.

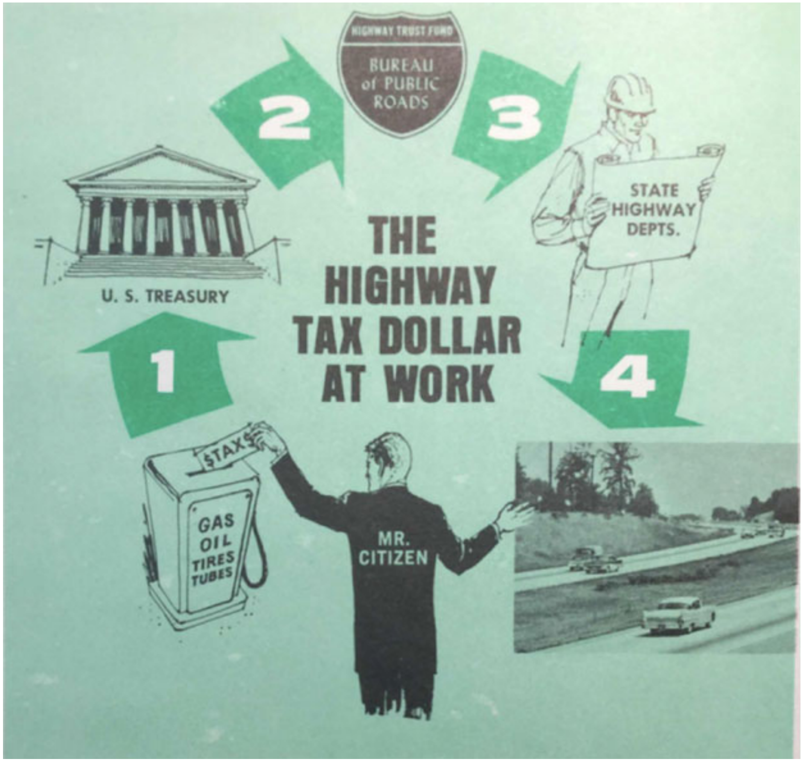

Figure 2. A Bureau of Public Roads graphic demonstrating the fiscal cycle through which the excise taxes paid by "Mr. Citizen" eventually became asphalt, and then spurred further excise tax collection. From Bureau of Public Roads, *Highways and Human Values* (Washington, DC, 1966), 40.

very antithesis of governmental activity kept "out of sight" with the help of privatized and financialized fiscal choices. If these were the benefits of the Highway Trust Fund, however, its excise tax loop proved to be an imperfect solution to the problems of bonded debt.[53]

The Highway Trust Fund established a circular system of excise taxation capable of building the novel, nation-spanning interstate highway system. The Bureau of Public Roads celebrated the circularity as a transformative policy innovation in publications and graphics (Figure 2). But these fiduciary dynamics compelled continual interstate construction irrespective of user needs and community concerns. As construction ramped up in the 1960s, critics drew attention to the destruction the interstate system's seemingly endless growth wrought across the nation's human and environmental geographies. And the fiscal infrastructure undergirding this physical infrastructure insulated destructive outcomes from oversight and reevaluations of spending priorities that might have curtailed the worst consequences and produced a more equitable highway system.[54]

The Highway Trust Fund, indeed, drew little public enthusiasm. Dispirited by the congressional fight over bonds and taxes and stuck with new costs, the public expressed little support for *any* functional funding structure by the time Eisenhower signed the Federal-Aid Highway

[53]Excise taxes on gasoline and other automotive products, of course, signaled postwar faith in oil supplies and cheap petrodollars as engines of state building. See Mitchell, *Carbon Democracy*, 109–43. See also Balogh, *A Government Out of Sight*.

[54]Critiques proliferated in the 1960s and 1970s with eye-catching titles. See A. Q. Mowbray, *Road to Ruin* (Philadelphia, 1969); Helen Leavitt, *Superhighway—Superhoax* (Garden City, NY, 1970); and Ben Kelley, *The Pavers and the Paved*. See also Wells, *Car Country*, 275.

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Act of 1956. When Gallup polled Americans that year, only 11 percent of respondents supported "higher taxes on gas, oil and tires" to build the interstates—matched by another 11 percent of Americans who said they still supported "hav[ing] the government borrow money." While Americans at the dawn of the interstate highway project in the 1930s had balked at the idea of toll financing, now a plurality of 40 percent of poll respondents preferred "a toll of about one cent per mile," an option long since shown to be insufficient to fund construction and long since abandoned by policy makers. The widely popular idea of a national highway system, in the end, had produced a distinctly unpopular financing system that grew only more unpopular in subsequent years as Americans witnessed the damage soon caused by unchecked interstate construction.[55]

The enactment of excise taxes saved billions of dollars in interest payments that bonded debt would have demanded. But the excise tax arrangement brought other costs, unforeseen even by budget hawks like Harry Byrd: it set in motion a paradigm of continual development not only of interstate highways, but of the petroleum-industrial complex that pushed their construction and expansion. Every time motorists filled their gas tanks or bought tires, the Highway Trust Fund transformed some of that capital into interstate highway construction—a process demanding ever more oil to run heavy equipment; oil to mix into asphalt substrate; oil to power the cars, trucks, and buses whose petroleum dependence kept the cycle going. This cycle, meanwhile, spurred growth in all manner of markets attached to everything from steel to gravel to sign paint. The massive and diffuse collection of industrial and consumer groups comprising these markets, all with vested interests in the continual expansion of the interstate highway system, was a crucial aspect of the policy feedback produced by the interstate highway system.[56]

The circularity of the fiscal and physical infrastructure meant that although Congressional Democrats had averted the cost of debt service in interstate construction, excise taxes carried a different set of costs that were not only financial in nature. The Highway Trust Fund insulated earmarked tax revenue as planned, separating it from general revenue and ensuring that interstate development continued irrespective of user-driven demands for increased highway construction. The presence of perpetually available capital and the absence of clear user need in interstate planning also called into question how much money the excise mechanism really saved taxpayers. What if officials were building highways no one needed or wanted? Compounding costs—financial and otherwise—soon became plain. From the moment construction began, the interstates played a central role in the postwar era of clearance characterized by environmental and community destruction. Such destruction was the price paid for the shopping centers, subdivisions, and suburban sprawl that marked the post–World War II decades. And the interstate highways made all of this development possible, scouring landscapes as disparate as wilderness areas, town parks, and urban neighborhoods.[57]

[55]Gallup Organization, Gallup Poll #1956-0563: Politics/Middle East/Presidential Election, 1956, Roper #31087547, version 3, Gallup Organization, Cornell University, Ithaca, NY: Roper Center for Public Opinion Research, DOI: 10.25940/ROPER-31087547; Gallup Organization, Gallup Poll #1938-0113: War Debts/Automobiles/Roosevelt, 1938, Roper #31087097, version 3, Gallup Organization, Cornell University, Ithaca, NY: Roper Center for Public Opinion Research, DOI: 10.25940/ROPER-31087097.

[56]Wells, *Car Country*, 274–7. For an overview of "policy feedback," see Julian E. Zelizer, "The Unexpected Endurance of the New Deal Order: Liberalism in the Age of Reagan," in *Beyond the New Deal Order: U.S. Politics from the Great Depression to the Great Recession*, eds. Gary Gerstle, Nelson Lichtenstein, and Alice O'Connor (Philadelphia, 2019), 71–89, here 77. See also Paul Pierson, *Politics in Time: History, Institutions, and Social Analysis* (Princeton, NJ, 2004), especially ch. 1.

[57]Ammon, *Bulldozer*, 182–218, 293. See also Adam Rome, *The Bulldozer in the Countryside: Suburban Sprawl and the Rise of American Environmentalism* (New York, 2001); Raymond A. Mohl, "Stop the Road: Freeway Revolts in American Cities," *Journal of Urban History* 30, no. 5 (July 2004): 674–706; and Michael R. Fein, "Highways and Livability Policy in the Post-Interstate Era, 1978–2013," *Journal of Urban History* 40, no. 5 (Sept. 2014): 855–69.

By the end of the 1960s, the vociferous interstate highway critic Ben Kelley—none other than the Bureau of Public Roads' former Chief Information Officer, radicalized by the destructive process of interstate construction—wondered whether bond-based financing might have kept interstate construction "more nearly within the limits" of wise development. In his 1971 book, entitled *The Pavers and the Paved: The Real Cost of America's Highway Program*, he looked back on the prefiguring debate over bonds. Congressional Democrats had worked hard to avoid what they presented as the needless cost of interest payments. Officials such as Treasury Secretary George Humphrey, in contrast, claimed the cost of bonded debt was worth its price because it delivered capital up front, and because the dynamics of bonds and interest seemed, too, to offer a marketized version of state building that Cold War conservatives found preferable to direct tax-and-pave methods. With these the terms of debate, Congressional Democrats had acted in good fiscal faith in sticking to an excise tax plan, but they had also unleashed an "untested devil" in the form of excise taxes, as Kelley put it. He concluded that bonds, despite their problematic interest costs, might have actually forced Congress to pay closer attention to the interstate highway system and make more attentive choices about the capital that constructed it. Kelley's hopes in this regard may have been overly optimistic; still, his commentary suggested just how imperfect the excise taxes were, even in contrast with the flaws of bonded debt. The chief issue was the apparently limitless paradigm of highway construction that excise tax structure made possible.[58]

In an article entitled "Priorities or Trust Funds?" published in *The Nation*, Kelley and his co-author Richard Herbert indulged in counterfactual analysis to expound upon the startling realities set in perpetual motion by the Highway Trust Fund. Imagine, they asked their readers, if Congress had simply added the interstate highway program to the national budget, rather than separating it with its own earmarked tax revenue. Imagine, that is, if "interstate construction were being paid for today, like everything else, out of the general treasury" and subject to "periodic review," rather than the "permanent indefinite appropriations" that had so worried Harry Byrd. If this had been the arrangement from the start, Kelley and Herbert felt that "no responsible federal official would consider paying for transportation projects in any way different" as time wore on. Especially given the welter of interstate critique that had gathered since the passage of the 1956 highway act, Kelley and Herbert implied that the interstate system's funding mechanism would be inconceivable if the interstate system's pecuniary foundation, instead, was a tax system predicated on general revenue expenditure and active oversight of expenditure and construction choices. Their counterfactual scenario, of course, could not definitively prove their argument. Still, their analysis made clear that in the eyes of critics, at least, interstate highway development and its undergirding fiscal infrastructure had become dangerously separated from the needs of citizens and communities living in the looming shadows of the concrete monsters.[59]

Government trust funds produce resilient forms of state building. The originators of the Highway Trust Fund knew this. So did the originators of the Social Security Act's fiscal provisions, who unintentionally inspired the fiduciary framework that made the interstate highway system's construction a financial and physical possibility. Marked by shared state building principles, the Social Security Act and the Federal-Aid Highway Act of 1956 each produced public goods whose legislative and material designs guarded against change and reform. Social Security has endured far better than many of the other welfare policies implemented alongside it in the heart of the New Deal. Scholars have generally evaluated the substantive success of

[58]Kelley, *The Pavers and the Paved*, 27. Kelley's was one of several critical interpretations of the Highway Trust Fund that emerged at the time. See also Mowbray, *Road to Ruin*, 18–43; and Leavitt, *Superhighway—Superhoax*, 230–3.

[59]Ben Kelley and Richard Herbert, "Priorities or Trust Funds?" *The Nation*, Apr. 19, 1971, 497–500, here 500; Mohl, "The Interstates and the Cities," 37; Senate Committee on Public Works, *National Highway Program*, Mar. 18, 1955, 497.

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Social Security with regard to who is included within and excluded from its social safety net. This has led some historians to focus on the origins of the Social Security Act, emphasizing the political forces that, for example, prevented the inclusion of federal health insurance in the act's provisions. Exploring such failures guides much of the literature. Yet, as Linda Gordon writes, deeper insight comes not from thinking simply about "more or less welfare spending," but rather from thinking about "the shape and spirit of public provision." In other words, some insight can be gained from analyzing paths not taken at the time of the Social Security Act's enactment; still more insight can be gained from investigating why the fiscal mechanics of public policy so often foreclose those paths from ever being explored in the future. Social Security and the interstate highway system offer views of how nation-shaping policies are not only produced, but also perpetuated. Like Social Security, the interstate highway system is diagnostic of infrastructural state building—that is, the interstate system illuminates a mode of governance capable of embedding its priorities, for better and for worse, across space and time with dramatic durability.[60]

The fiscal infrastructure that enabled the interstate highway system's twinned processes of construction and destruction offered little opportunity for reappraisals of development and its consequences—reappraisals that might have reflected emerging economic, social, and environmental concerns over the course of the twentieth century. Instead, excise taxes became institutionalized in the Highway Trust Fund, setting in motion a paradigm of continual infrastructural growth fixed in space and time with all the permanence of asphalt and concrete. In the end, the fiscal development of the interstates revealed a set of pitfalls in modern American political economy and state building. Bonded debt and excise taxation each called attention to the fraught financial mechanisms of infrastructural state building. Bonds and taxes each, in their own ways, misaligned the relationship between state builders and citizens, binding the two together yet splitting their interests apart—all the while thwarting reform and incurring a vast range of social and environmental costs in the process.

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[60]Linda Gordon, *Pitied but Not Entitled: Single Mothers and the History of Welfare, 1890–1935* (Cambridge, MA, 1994), 3–4. See also Theda Skocpol, *Protecting Soldiers and Mothers: The Political Origins of Social Policy in the United States* (Cambridge, MA, 1992); Robyn Muncy, *Creating a Female Dominion in American Reform, 1890–1935* (New York, 1991); Suzanne Mettler, *Dividing Citizens: Gender and Federalism in New Deal Public Policy* (Ithaca, NY, 1998); Felicia Kornbluh, *The Battle for Welfare Rights: Politics and Poverty in Modern America* (Philadelphia, PA, 2007); and Karen M. Tani, *States of Dependency: Welfare, Rights, and American Governance, 1935–1972* (New York, 2016). With regard to the perpetuation of policies, the allusion here is to the concept of "path dependence" explored in Pierson, *Politics in Time*, especially ch. 1.