Switching Tracks:
The Place of Railroads in an Era of Economic and Environmental Reform, 1966-80

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The Place of Railroads in an Era of Economic and Environmental Reform, 1966-80

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ABSTRACT

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To stave off the collapse of the feeble and bankrupt U.S. railroad industry in the 1970s, federal policymakers enacted major regulatory reforms. The creation of Amtrak and Conrail, significant rehabilitation projects, and an overhaul of transportation laws enabled the railroads to pare down their lines and retool their businesses. Each of these rapid developments in economic and business policy also reshaped natural and built landscapes. Using congressional and executive documents and secondary materials, this thesis shows how environmental regulations, historical preservation, and public awareness of ecology and resource scarcity informed the process of railroad reform. The environmental impact statement redefined how federal bureaucrats approached railroad infrastructure projects and line abandonment, while new pollution rules and energy-efficiency programs affected the rails’ biggest customers, like coal and manufacturing. Two important trends in postwar domestic policy—new social regulation and economic deregulation—intersected to jumpstart U.S. railroading in the 1970s.

Approved: __________________________________________________________

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<th>Abbreviation</th>
<th>Description</th>
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<tbody>
<tr>
<td>3R</td>
<td>Regional Rail Reorganization Act of 1973</td>
</tr>
<tr>
<td>4R</td>
<td>Railroad Revitalization and Regulatory Reform Act of 1976</td>
</tr>
<tr>
<td>AAR</td>
<td>Association of American Railroads</td>
</tr>
<tr>
<td>CAA</td>
<td>Clean Air Act of 1970</td>
</tr>
<tr>
<td>CAB</td>
<td>Civil Aeronautics Board</td>
</tr>
<tr>
<td>CEQ</td>
<td>Council on Environmental Quality</td>
</tr>
<tr>
<td>DOT</td>
<td>Department of Transportation</td>
</tr>
<tr>
<td>EIS</td>
<td>Environmental impact statement</td>
</tr>
<tr>
<td>EPA</td>
<td>Environmental Protection Agency</td>
</tr>
<tr>
<td>FRA</td>
<td>Federal Railroad Administration</td>
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<tr>
<td>GRFL</td>
<td>Gerald R. Ford Library</td>
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<tr>
<td>HSR</td>
<td>High-speed rail</td>
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<tr>
<td>ICC</td>
<td>Interstate Commerce Commission</td>
</tr>
<tr>
<td>LDL</td>
<td>Light-density line</td>
</tr>
<tr>
<td>N&amp;W</td>
<td>Norfolk &amp; Western Railroad</td>
</tr>
<tr>
<td>NEC</td>
<td>Northeast Corridor</td>
</tr>
<tr>
<td>NEPA</td>
<td>National Environmental Policy Act of 1969</td>
</tr>
<tr>
<td>NIMBY</td>
<td>&quot;not in my backyard&quot;</td>
</tr>
<tr>
<td>NLUPA</td>
<td>National Land Use Policy Act</td>
</tr>
<tr>
<td>PC</td>
<td>Penn Central Railroad</td>
</tr>
<tr>
<td>PRR</td>
<td>Pennsylvania Railroad</td>
</tr>
<tr>
<td>SCRAP</td>
<td>Students Challenging Regulatory Agency Procedures</td>
</tr>
<tr>
<td>STB</td>
<td>Surface Transportation Board</td>
</tr>
<tr>
<td>TES</td>
<td>Environment, Safety, and Consumer Affairs (DOT)</td>
</tr>
<tr>
<td>TEU</td>
<td>Environment and Urban Systems (DOT)</td>
</tr>
<tr>
<td>UP</td>
<td>Union Pacific Railroad</td>
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<td>USRA</td>
<td>United States Railway Association</td>
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CHAPTER 1: INTRODUCTION

The Junction of Environment and Economy in U.S. Railroading

Members of the board of Penn Central met in Philadelphia on the morning of February 1st, 1968 to discuss their brand new firm, which overnight had become the largest surface transportation company in the United States. Managers and owners of the Pennsylvania Railroad (PRR) and New York Central Railroad had, after ten years, finally convinced federal regulators that a merger of their corporations could benefit both stockholders and the public at large. By pooling their lines, properties, and workforces, Penn Central (PC) management expected to shed duplicate tracks and facilities, streamline operations, and return to profitability. However, such intentions quickly proved ill-founded, and “almost from the day of the merger, short-term financial survival became the overriding objective” for PC.1 Dramatic shifts in the American economy and transportation patterns meant hard times ahead.

On February 11th, just ten days after the first PC board meeting, Bob Hope and Bing Crosby headlined the inaugural concert at the fourth incarnation of Madison Square Garden in New York. While Messrs. Hope and Crosby entertained the center’s first crowd, a few grumbling passengers likely boarded or disembarked dingy trains in a subterranean rail terminal below. Only four years prior, Pennsylvania Station, one of the most storied and iconic rail terminals in the world, had occupied the plot on which the

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Garden now stood. However, the low-lying, single-use station cost far more than it earned. By the 1960s, too few commuters and travelers passed through its turnstiles. Rather than preserving or repurposing the impressive Romanesque station, the struggling PRR simply tore it down and replaced it with office towers. Like so many other historic elements of the U.S. rail infrastructure, Penn Station’s value derived not from its unquantifiable cultural, aesthetic, or architectural merits, but rather its real estate.2 Modern America preferred a sleek entertainment center to a musty old train depot.

During the 1970s and subsequent decades, most shifts in the U.S. rail industry were far more subtle than the flashy demise of Penn Station or the dramatic birth and death of Penn Central. In small towns and urban centers across the country, railroad companies slashed passenger routes, failed to serve their shippers, and incurred huge debts. The largest Northeastern and Midwestern carriers enjoyed few of the economies of scale typical for companies of their size. Great physical capacity and a huge workforce proved too burdensome, and the railroads struggled to turn a profit. Passengers chose instead to ride in automobiles, buses, and jet aircraft, while ever more shippers hauled their goods in trucks.

Compounding these woes, federal and state regulations and tax codes proved exceedingly rigid and onerous. Unable to pay back lenders or the states, many of the biggest carriers in the Northeast began to default and slip into bankruptcy by the late 1960s. As the spiral deepened, rail properties fell into disrepair. Crossties rotted and

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tracks bowed hazardously, maintenance and switching facilities became outdated and unsafe, and dank and dirty rail stations emptied. The bloated and hapless railroads, once a great source of pride and commerce, had lost their place in both American society and its urban and rural landscapes.

The rail crisis unfolded concurrently with other upheavals in the American economy and its government. The postwar abundance and production boom crept to a halt by the early 1970s. With their high fixed costs, railroads struggled to cope with inflation, recession, and plant closures. Delays and failures in rail service threatened fragile manufacturing towns across the soon-to-be Rust Belt in the Northeast and Midwest, compounding the effects of the sharpest downturn since the Great Depression. Rail management had proven unable to find private solutions to address either the new business climate or the strictures of regulation. To stave off catastrophe in the transportation industry and the national economy, the federal government had little choice but to act.

Working with economists and business leaders, members of all three branches approached federal railroad policy in two distinct but interrelated ways. The government first needed to solve the immediate threats of bankruptcy, loss of service, and a decaying rail infrastructure. To relieve the railroads of their obligation to provide passenger service, Congress formed the National Railroad Passenger Corporation in 1970. This semi-private government entity, which the industry quickly dubbed “Amtrak,” required hefty subsidies to continue passenger operations in the United States. Outside of the Boston-New York-Washington “Northeast Corridor” (NEC), few Americans rode trains
any longer, so Amtrak’s large costs served relatively little demand. Through the Regional Rail Reorganization Act of 1973 (3R), Congress established the U.S. Railway Association (USRA) to reorganize bankrupt carriers in the Northeast and Midwest. By 1976, the USRA had created the semi-private Consolidated Rail Corporation, or “Conrail,” to operate freight services of the now-defunct carriers. Adding to these expensive and sprawling entities, Congress also guaranteed huge loans and subsidies to rehabilitate rail lines, refurbish worn locomotives, and replace antiquated railcars. Few Americans were eager to see the government running the rails, but many trains—and Northeastern manufacturers—might have sputtered to a halt if not for federal intervention.

The second major avenue of government action involved the reform of federal railroad regulation, a less immediate but more systemic problem plaguing the industry. All rail activities fell under the purview of the Interstate Commerce Commission (ICC), the first independent federal agency. Prior to federal regulations, railroads used their dominant position to collude, squelch competition, and treat some customers with preferential rates while setting exorbitant rates for others. To protect shippers and the public interest, Congress created the ICC in 1887. However, as trucks, automobiles, and airplanes began shearing traffic away from rail in the 1920s and 1930s, the ICC only added new regulations and rate structures. Its systems for ratemaking, market entry and exit, mergers, and line construction and abandonment became antiquated at best and Byzantine at worst. Many of the oldest and largest railroads in the Northeast could not contend with immutable ICC regulations. Through the Railroad Revitalization and
Regulatory Reform Act of 1976 (4R), which redefined the ICC’s authority over railroads, Gerald Ford’s administration ignited the era of transportation deregulation.

While this thesis cannot assess the merits of government intervention in all sectors of American life, it will study the extent to which regulations adapted to economic and social needs. The failure of economic regulation to meet those needs clearly suppressed the railroad industry and, by extension, forced gross inefficiencies onto the national economy. Such waste also produced significant societal and ecological consequences. Outdated and inappropriate regulation cost many railroad workers their jobs, inflated prices of industrial and consumer goods, and degraded local environments. Economic malaise and ecological worries defined much of the 1970s—the “Age of Limits.” This historical context is critical to understanding the evolution of both economic and new social regulation.

The railroad crisis of the late 1960s and early 1970s coincided with blossoming public awareness of pollution, land use, energy efficiency, resource scarcity, and urban blight. To address the mounting concern for environmental problems, the national government enacted a series of sweeping regulatory laws and expansive oversight bodies. The Environmental Protection Agency (EPA) became notorious among businesses for its enforcement of the Clean Air and Water Acts of the early 1970s. The law most pertinent to transportation, especially railroading, was the National Environmental Policy Act of 1969 (NEPA). This legislation required federal agencies, including the ICC and the Department of Transportation (DOT), to consider the environmental implications of their proposals. By documenting and accounting for the potential ecological consequences of
government action, NEPA responded to the public’s burgeoning desire for a more consistent and coordinated federal environmental policy.

NEPA-mandated environmental impact statements (EIS) consistently showed that passenger and freight rail required less fuel, emitted less pollution, and used less land than nearly all other modes of transportation. Restoration of the railroads’ solvency thus became more than a matter of economic urgency. Environmentally conscious lobbyists promoted rail as a light-impact alternative to highways and airports. Shippers and carriers sought both to cut fuel costs and to tout their commitment to social and community goals. With rehabilitation, economic deregulation, and appropriate environmental oversight, the railroads offered a unique opportunity to improve the efficiency and effectiveness of U.S. transportation while lessening its imprint on the land.

The overhaul of federal railroad policy in the 1970s rightly focused on economic concerns, but it clearly interacted with environmental regulations as well. This thesis will explore the junction of the environmental laws of “new social regulation” and old-style, interest group-oriented economic regulation. Whereas traditional agencies like the ICC adjudicated particular markets and commercial practices, new administrations for equal employment, workplace safety, and environmental protection sought to correct existing problems and anticipate future harms to society. Environmental regulators not only implemented forward-looking rules, but also opened the door for broad and diffuse networks of activists, interest groups, and average citizens to participate in the governing process. DOT and ICC decisions on project funding, line abandonment, and corporate

mergers and consolidations best exemplify the overlap of economic reform and the place of railroads in rural, small-town, and urban landscapes. Legislation regulating pollution, land use, energy efficiency, and environmental preservation also affected railroad businesses and communities across the country. The ecological, spatial, and cultural consequences of new social regulation mixed with the economic reforms that revived and retooled the railroad industry in the 1970s.4

Many historical studies of railroading in the 1960s-1980s dwell on the congressional side of the story without fully accounting for the contributions of executive departments and the White House. As a result, few scholars have acknowledged the extent to which presidents and their staffs participated in reforming and reviving American railroads. While the Ford Administration was not the first to acknowledge the need for transportation reform, it was the first to effect real change. The Ford Administration not only drafted a major piece of railroad legislation, but also established a precedent for the reform of other modes of transportation and sectors of the economy. With a few exceptions, most scholars fail to recognize how subsequent administrations and congresses of both parties built on the trend begun by Ford in 1975-76. Indeed, as Richard Saunders notes in Main Lines, “Many of the changes attributed to the Staggers


4 For the direct interaction among rail, the ICC, and NEPA, see Neil Thomas Proto, To a High Court: The Tumult and Choices that Led to United States of America v. SCRAP (Lanham, MD: Hamilton Books, 2006).
Act [signed by Jimmy Carter in 1980] were well underway as a result of the 4R Act [passed under Gerald Ford in 1976].

Most historical research and commentary on American rail focuses on its birth and heyday in the 1800s. Some work extends into the early and mid 20th century, and a few authors even discuss rail history since the 1970s. Several important monographs examine specific issues such as passenger rail, postwar decline, and the effects of deregulation on particular economic sectors. Relatively little scholarship, especially from contemporary historians, emphasizes the challenges besetting rail in the second half of the 20th century. Industry trade journals show how regulatory reform and environmental awareness continue to shape railroading, yet the role of natural and built landscapes has drawn remarkably little scholarly attention.

This thesis consists of three chapters. The first summarizes the evolution of railroad regulation between the 1870s and the 1960s. Congress and the ICC added rules as new modes of transportation challenged the rails, but did not give railroads the necessary tools to adapt to economic, demographic, and environmental changes. The

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7 See Saunders, Main Lines, as well as Rose, Seely, and Barrett.

8 One exception highlights rail’s imprint on the environment: John R. Stilgoe, Train Time: Railroads and the Imminent Reshaping of the United States Landscape (Charlottesville: University of Virginia Press, 2007).
story of Penn Central illustrates why Northeastern rail could not sustain service into the 1970s. The second chapter investigates how environmental laws interacted with railroad companies, rail customers (notably coal), and their physical infrastructure. The National Historic Preservation Act of 1966 and NEPA reshaped railroads directly, while other environmental statutes affected shippers like manufacturers, extractive industries, and agriculture. Economic decline, resource scarcity, and the political goals and philosophies of the Nixon and Ford administrations inform this discussion. The junction of economic and environmental reforms proved especially important for the ICC and DOT.

Synthesizing the themes of the first two chapters, the third addresses the economic and spatial upheavals in U.S. railroading in the 1970s. The first sections explore the academic and political foundations of deregulating transportation. The bulk of the chapter assesses the birth of Amtrak and Conrail, institutional changes at the ICC and DOT, and the regulatory reforms of the 3R, 4R, and Staggers acts. This chapter also fills a gap in scholarship by linking congressional environmental law with Nixon- and Ford-era railroad reforms. A concluding section investigates how regulatory modernization in the 1970s allowed the railroads to adjust their business practices, adapt to a smaller and more specialized transportation role, and reduce their environmental impacts.

As federal policymakers acknowledged in the 1970s, “transportation facilities are really environments in themselves.”10 Railroading has a signature place in the American

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10 Report, “Urban Transportation Needs” (20), Folder “DOT, Issues – Background Information,” Box 15, *Michael Raoul-Duval Files, 1974-77* [hereafter Duval Files], GRFL.
landscape, society, and historical memory (see “fig. 1”). This research sheds light on the interaction among the railroads, transportation authorities, legislators, executive officials, and average Americans. By looking at the intersection of railroads with environmental and economic regulatory reforms, my work enhances historical understanding of the evolution of government, economy, and society since the 1970s. This approach can redefine how historians study the dramatic transformation of rail in the American landscape and mindset.

Figure 1: A defunct raised rail bridge stands sentinel along the Cuyahoga River in Cleveland, a manufacturing and rail hub in the Rust Belt. Photo by author.
CHAPTER 2: THE 19TH-CENTURY RAIL NETWORK AND REGULATORY REGIME ENDURE

The modern railroad no longer captures the imagination. Many Americans associate rail with heavy industry, dusty grain elevators, weed-ridden grade crossings, and “the other side of the tracks.” Historical memory of railroading shies away from contemporary containers, coal trains, and diesel locomotives in favor of the steam engine, the boxcar, and the red caboose. Railroad museums and preserved train stations often cater to families with small children. By privileging romantic visions of the bygone steam age, such places offer what urbanist Alan Mayne calls “a profoundly ahistorical snapshot approach.” One cannot question the enthusiasm of rail fans or the scholarship of historians who enjoy dissecting steam engines, reliving gory wrecks, hammering down the first transcontinental lines, and riding aboard ritzy Pullman cars. Yet such emphasis on 19th-century locomotion perpetuates the popular conception of trains as an artifact, not a vital and productive mode of modern transportation. To appreciate the role of rail in the history of the American continent, one must study “the continuing interaction” among people, their tools, and their diverse landscapes.11

Railroads first sprouted from coastal cities like Baltimore, Philadelphia, New York, and Boston in the late 1820s and early 1830s. Within decades the rails had supplanted horse-drawn carts and canal boats as the preferred method of hauling goods and people over land. As lines of track and puffs of smoke spread into new urban and

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rural landscapes, Americans came to view rail as an integral part of both the human and natural environments. As Leo Marx notes in *The Machine in the Garden*, antebellum paintings depict rails snaking around verdant hills, chugging through the pastoral countryside, and whistling triumphantly into hubs across the Great West. Most rail companies remained small and served local and regional needs. The 19th-century urge to introduce rail lines to even the smallest centers of commerce bestowed the United States with an enduring legacy: a huge volume of tracks. By unifying its crossties and rails with America’s open spaces, farms, small towns, and cities, the iron horse empowered an agricultural, commercial, and industrial revolution.12

By comparing maps from the late 19th century and the mid 20th century, one quickly gleans the place of transportation on the American landscape (see “fig. 2”). Thick lines representing railroads flow across 1890s maps of the agricultural and industrial heartland of the Midwest and Northeast. Small farming towns and big commercial cities alike depend on the rails. The only other lines represent county and state borders; surface roads do not appear. During the 1920s, and especially after the dawn of interstate highways in 1956, roads began to dominate transportation networks. Maps illustrate the shift of passengers and freight from trains to automobiles, trucks, and buses—as well as the immense implications for land use, development, air and noise emissions, and pollution. Responding to this trend, environmental historian Samuel P. Hays noted, “One

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could chart the successive environmental consequences accompanying the innovations in transportation that came with the growth of the industrial economy as some of the more severe forms of the increasing loads on a finite environment.”¹³

Figure 2: Map of Nebraska, 1890. Lines for states, counties, and rivers appear small compared to rail lines. Road networks would not appear for several decades. (W. H. DePuy, ed., Americanized Encyclopedia Britannica, vol. 8 [1892], 4410.)

Travelers and shippers once depended on rail much as modern Americans rely on the highway. Like all profit seekers, railroad companies sought to capitalize on their strengths. The strong local orientation of early railroads meant that individual state

governments were the first to react against abusive, monopolistic practices. Through the 1877 case *Munn v. Illinois*, the Supreme Court granted state commissions the authority to regulate not just intrastate affairs, but the interstate commerce of rail as well. In less than ten years, this state-based system proved cumbersome, conflicted, and unconstitutional. In 1886, the Supreme Court ruled in *Wabash v. Illinois* that in accordance with the commerce clause, only the federal government held such regulatory power. The following February, President Grover Cleveland signed the Interstate Commerce Act of 1887 into law. The act created the first federal regulatory bureau, the Interstate Commerce Commission, or ICC. Although its funding and authority derived from Congress, the ICC became a very independent and powerful agency.14

Late 19th-century railroad regulation quashed anticompetitive behavior and promoted the general public welfare. As Theodore E. Keeler shows in *Railroads, Freight, and Public Policy*, the ICC modernized commercial norms, designed uniform and just practices, and promoted free trade. By overseeing profit-seeking “common carriers” like the railroads, the ICC mandated fair and equal treatment of shippers, protected consumers from unreasonable prices, and insisted on safe delivery of goods and people. Railroads could no longer set discriminatory rates unreflective of haul length or grant rebates to certain customers. Before regulation, railroads like the New York Central had awarded generous rebates to companies like the rapacious Standard Oil Company, perhaps the

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14 Ari Hoogenboom, “Interstate Commerce Act,” in *Railroads in the Age of Regulation*, 230-31; Memo, Jim Cannon to Bill Seidman and Rod Hills, 27 May 1975, Folder “Cannon, James M. (Executive Director, Domestic Council), 2/75-10/12/75 (5) 5/15-31/75,” Box 173, *L. William Seidman Files, 1974-77* [hereafter *Seidman Files*], GRFL.
most notorious recipient of preferential treatment, just for the pleasure of doing business. Genuine robber barons and monopolies indeed justified some regulation.

As the railroads hurtled into the 20th century, the Elkins Act of 1903, the Hepburn Act of 1906, and the Mann-Elkins Act of 1910 plugged loopholes and granted the ICC greater ratemaking authority. The ICC replaced the courts as the government’s liaison with railroads, further blending its legislative, administrative, and judicial functions. Railroad companies no longer complained about losing the ability to set their own rates; regulation prevented rate wars, lowered risk, and promoted stability. Instead of accounting for actual transportation costs, the ICC based rates on a railroad’s supposed “value of service.” This politically popular and highly profitable system allowed a railroad to charge whatever the shipper would bear. Historian Ari Hoogenboom notes how the ICC-sponsored “value of service” method proved “inconsistent, unfair, and chaotic.” Such ratemaking misallocated both monetary and capital resources. By the early decades of the 20th century, ICC ratemaking prevented some railroads from covering costs, driving weaker lines into bankruptcy. Regulation may have ended monopolistic practices, but it evolved into an anticompetitive, abusive, and inefficient nightmare.

In 1916, the spread of U.S. railroads peaked at 254,037 track miles. Over the next 70 years, even given new construction, total mileage would drop nearly 43 percent. The

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15 One participant in a meeting with President Ford coyly remarked on Nelson Rockefeller and his forebear, John D.: “I think we need less regulation rather than more. I think the Vice President’s grandfather had something to do with ICC creation.” Transcript, “President’s Meeting with Congress on Regulatory Reform,” 25 Jun. 1975, Folder “Regulatory Reform,” Box 95, MacAvoy Files [hereafter MacAvoy Files], GRFL.
17 Keeler, Railroads, Freight, and Public Policy, 22-24; Hoogenboom, “Hepburn Act,” in Railroads in the Age of Regulation, 198; Hoogenboom, “Ratemaking,” in Railroads in the Age of Regulation, 358; Itzkoff, Off the Track, 46.
railroad industry had overextended its reach and began to contract. The Transportation Act of 1920, also known as the Esch-Cummins Act, transferred the authority to grant rail line abandonment from the states to the ICC. This shift gave the ICC incredible clout as railroads weighed whether to maintain and use their lines fully or apply to abandon their excess and unprofitable mileage. The ICC considered the external impacts of abandonments on shippers and communities only indirectly. The Esch-Cummins Act granted the ICC a host of other new regulatory powers. In addition to capping maximum rail rates, the agency also determined minimum rates. The ICC began to oversee merger proceedings, corporate consolidations, and the entry and exit of railroads in different markets. The act also established important precedents for solving labor and mediation problems.\footnote{Robert Meltz, Dwight H. Merriam, and Richard M. Frank, \textit{The Takings Issue: Constitutional Limits on Land-Use Control and Environmental Regulation} (Washington, DC: Island Press, 1999), 435; Thomas J. Humphrey, \textit{Framework for Predicting External Impacts of Railroad Abandonment}, Office of University Research (Washington, DC: U.S. DOT, 1975), 15; Keeler, \textit{Railroads, Freight, and Public Policy}, 24-25; Thomas Russell Fisher, \textit{Industrial Disputes and Federal Legislation}, Studies in History, Economics and Public Law (New York: Columbia University Press, 1940), 99-100, 162-63.}


\textbf{Competition and Decline}

Despite growing signs of systemic weakness within the railroad industry in the 1920s and 1930s, Congress did not lose faith in the efficacy of its transportation regulatory policies. Fearing intermodal competition, the railroads decried the lack of
regulation for trucks or barges and called for “increased coordination among transportation modes.” The Motor Carrier Act of 1935 expanded ICC purview over truck and bus service, the Transportation Act of 1940 placed inland waterways under ICC jurisdiction, and the Reed-Bullwinkle Act of 1948 sanctioned rate bureaus for transportation, effectively legalizing cartels. These changes occurred as railroads faced weak intramodal (railroad-railroad) competition but struggled to compete with trucks and cars. Although rail remained the cheapest mode for long hauls and large loads, trucks proved far more flexible and punctual for short distances and small shipments. Furthermore, railroads paid substantial state property taxes, whereas trucks paid no taxes in support of the highways system. Such comparative disadvantages ballooned throughout the 20th century.

Passengers turned to affordable automobiles in the 1920s and shippers to trucks in the 1930s. In Trucking Country, historian Shane Hamilton finds that “Railroads’ share of gross freight revenues dropped from 80% in 1944 to 52% in 1958, while truck revenues increased from 15 to 39 percent… Railroads continued to haul nearly twice as much freight as trucks by 1960… but trucks increasingly captured the market for short- and medium-length hauls of higher-value freight.” The railroads hauled 4.2 times as many ton-miles as motor carriers in 1949, but only 1.9 times as many ton-miles just 20 years

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later. To support the growing trucking industry, federal and state governments provided more funds to expand and modernize the nation’s highways. The railroads had benefited from extraordinarily valuable and generous land grants throughout the 19th century, but by the second quarter of the 20th century, the American people and their government had turned their attention—and coffers—irreversibly toward the road. The spatial and monetary consequences of this shift continue to shape American society.

The economic upheavals of the Great Depression and the Second World War redistributed Americans and their businesses. Ever more people lived in and conducted their commerce in metropolitan areas, especially in the less rail-dense South. Suddenly serving little purpose, countless rural light-density lines (LDL) in the Northeast and Midwest lost money and viability. With few exceptions, rail was slow to expand into the great postwar suburbs. Rail companies had little wiggle room. Federal regulators oversaw every inch of track, every rate change proposal, and every internal corporate decision. As government subsidized highway construction to the direct benefit of motorists and truckers, the railroads scrambled to cut their high fixed costs. Given the excessive number of tracks, abandonment proved an increasingly attractive option.

Of the 73,335 miles of abandonment requests between 1920 and 1969, the ICC allowed the railroads to cut 63,322. At first glance, these figures might suggest that the ICC responded to abandonment applications with alacrity. For many of the less


significant cases involving segments of track averaging only ten miles, local governments and shippers did not bother to contest the applications. However, most contested cases involved branch lines greater than 30 miles in length. If an interested party or a politically well-connected business insisted that a rail line served “the public convenience and necessity,” the ICC eagerly denied abandonment. Even though railroads were private companies, their common carrier status obligated them to provide unprofitable and inefficient service.²⁴

Railroads did not abandon lines simply because they could not compete with highways and trucks. The depletion of a natural resource or the obsolescence of a local industry often ended a branch line’s usefulness. Weed-covered tracks and switchyards idled adjacent to the clear-cut timber stands, exhausted mineshafts, abandoned farms, and emptied quarries of the rural Northeast, Appalachia, and Great Lakes. Competition from petroleum and bituminous coal in the mid 1920s, for example, destroyed the anthracite coal business in Pennsylvania. The collapse of the anthracite industry plunged countless small towns into deep depressions. Adding to the grave social and health effects of the lost economy, the anthracite regions of Pennsylvania watched as the railroads ripped up their tracks and ties. With their associates in the anthracite business gone, the railroads had no one to serve.²⁵


During the interwar decades, rail could not maintain, let alone increase, its position in U.S. transportation. Even at the peak of ridership in the 1920s and 1930s, “no passenger train covered fully allocated cost,” as Richard Saunders finds in *Main Lines*. By the 1960s, passenger rail had become supply without demand. The freight rail industry, which best maximized efficiency by hauling cars filled with the same commodity, hemorrhaged highly profitable less-than-carload (LCL) traffic. Such high-value carloads involved greater handling costs than bulk shipments but garnered higher rates. From 1928 to 1945, LCL rail shipments dropped from 13 million to 5.5 million carloads; LCL carriage sank to just 1.8 million carloads by 1960. All of this traffic went to trucks.26

By hauling troops and materiel during World War II and the immediate postwar years, rail had enjoyed a brief revival against trucks. However, the end of wartime petroleum rationing and the boom of highway construction resumed rail’s downward trend. Static 19th-century regulation, which Congress and the ICC had changed little since the advent of trucking, continued to hem in the railroads. The industry converted from steam to diesel locomotives in the 1940s and 1950s to cut personnel costs. Although diesel engines required less upkeep and fewer operators, labor unions insisted that expensive and obsolete “firemen” remain on board each train for a quarter century. In addition to firemen, antiquated rules still required crew changes after every hundred miles of service. Many crews thus served for only a few hours at a time, damaging overall productivity. To curb systemic inefficiencies and institutional malaise, rail

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companies attempted to merge, consolidate, and abandon more lines. Yet under the rigid regulatory regime, these changes did little to slow rail’s diminished presence in America’s economic and physical landscapes.

Stagnation and Doubt

Long dependent on ICC dictates, railroad management proved ill equipped to innovate the industry back to solvency. A 1972 White House report found that, “The restrictions of the ICC have led to managers suffering from regulatory syndrome—they focus on the trivia of regulation rather than on the markets they might service.”

Compounding the inefficiencies of government intervention, rail companies often used dated, shortsighted managerial techniques and failed to attract financial or engineering talents. Since freight paid the bills, railroads concentrated on bulk shipping rather than passengers. Slow to embrace automation and computers, the railroad industry gained a reputation for unreliable and untimely delivery of people and freight.

Delays and inconvenient schedules accelerated the flight of shippers and commuters to highways. Even in the 1950s, when the railroads still invested in passenger service, railroad marketing could not inspire a train culture on car-crazy Americans. Neither sleek and modern streamliners nor nostalgia for the just-closed steam era could attract customers. Unlike in Japan and Europe, where transportation systems balanced road and rail, the U.S. government encouraged the single-minded trend toward private automobiles. The massive Interstate Highway System stood out as the greatest disservice.

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27 Itzkoff, Off the Track, 21, 50-51, 59, 122.
to rail. Congress also paid for the development of jet technology and hundreds of municipal airports. In spite of their attempts to capture parts of the leisure and travel markets, railroads could not compete with the speed, punctuality, or allure of jet travel.\(^{29}\) Most Americans seemed ready to let the train become a thing of the past.

Dissatisfied with the lackluster performance of the railroad industry and its drag on the national economy, some politicians and economic analysts began demanding a reassessment of transportation funding and regulation. President Franklin Roosevelt, whose expansive New Deal embodied his deep faith in the value of government programs, had questioned the efficacy of federal transportation regulators at the ICC. In 1949 and 1955, Hoover Commission reports called for a “thorough reorganization” of regulatory agencies. A transportation committee of the Eisenhower Administration, which was the first to acknowledge that railroads no longer posed a monopoly threat, produced the “Weeks Report” in 1954. This concise document advocated reducing inefficient and ineffective government regulation. At later hearings before the Senate Committee on Interstate and Foreign Commerce, railroad executives begged for Congress to reduce ICC regulations. The rail men discussed how obligation to provide passenger service forced them to “cross-subsidize,” or overcharge captured shippers at the expense of others. The railroads bore huge financial burdens to serve nonexistent demand across wide swaths of the country. Such regulation ran counter to the public interest.\(^{30}\)

\(^{29}\) Itzkoff, *Off the Track*, 51, 97-98, 117, 119, 121-23.

The most substantive law to shape railroad regulation between 1920 and 1973 was the Transportation Act of 1958. Removing another layer of state regulatory oversight of railroads, it transferred the authority to grant passenger route discontinuances from the states to the ICC. Although the ICC had worked hard to earn its reputation for lengthy deliberations and resistance to change, the federalization of regulation offered the railroads a glimmer of hope. The ICC did not establish firm standards for route discontinuance, but it obstructed fewer of the railroads’ requests than had the states. Municipalities frequently called upon their state governments to block branch line abandonment, even if shippers seldom needed service or had already converted to trucking. Small towns cherished the tracks running through their communities and near their businesses. However, some refused to acknowledge the costs of uneconomic and unnecessary lines to rail companies.31

By the 1960s, politicians understood that regulatory reform could help reverse the railroads’ precipitous decline. The Landis Report, published in 1960 shortly before John F. Kennedy took office, criticized transportation regulation as “obsolete” and “patchwork.” Although the Johnson Administration sought to minimize government intervention in transport regulation, in 1966 it created a powerful new executive agency, the Department of Transportation. Under its first secretary, Alan S. Boyd, the DOT supported rail and shed light on the ineffectiveness of many ICC regulations. However, President Richard Nixon and his first DOT secretary, John A. Volpe, did little to instate pro-competitive reforms. The department’s “new direction for transportation” in 1969 included plenty on automobiles, air, trucking, and mass transit, but nothing on railroads.

31 Keeler, Railroads, Freight, and Public Policy, 30; Itzkoff, Off the Track, 56, 125-27.
The Nixon Administration oversaw the bankruptcy of the Penn Central, the birth of Amtrak, and the agency that would create Conrail, but it neglected to confront the basic systemic problems of railroad regulation. Whereas President Nixon was unable to enact broad reforms, his successor would make the first great strides to reinvigorate the nation’s rails.  

In 1973, new members of the White House economic staff proved eager to solve the ongoing rail crisis. Presidential advisors Paul W. MacAvoy and John W. Snow found that excess trackage, redundant facilities, and overlapping lines were three of the heaviest burdens for rail. Outmoded regulations, ICC inflexibility, archaic work rules, and federal highway subsidies contributed to railroad failures. MacAvoy and Snow suggested that, “Low earnings rob [railroads] of the ability to make improvements in plant which are needed to reduce costs and improve service.” The conservative American Enterprise Institute found that line abandonments and mergers, paired with a loosening of ICC rate regulations, could help the rail industry emerge from this “vicious cycle.”

MacAvoy, Snow, and other White House advisors sought to help railroad companies shed their excess lines. Whether in rural areas, small towns, or dense cities, track and crosstie removal meant profound economic and spatial implications for people and their built environments.

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The Saga of Penn Central

From February 1968 onward, one railroad company stood out as the most sprawling, interconnected, and essential to the North American economy: Penn Central. Staggering numbers illustrate the magnitude of PC’s presence in 16 Northeastern and Midwestern states, the District of Columbia, and two Canadian provinces. Thirty-five percent of U.S. rail passengers rode PC trains. Fifty-five percent of U.S. manufacturing plants and 69 percent of manufacturing employees operated in PC territory. Twelve percent of all U.S. intercity rail traffic moved in PC cars; Penn Central accounted for fully six percent of intercity freight in all modes. Industries that produced bulky raw materials and manufactured goods, especially automobile plants in the Great Lakes region and coal mines in central Appalachia, relied heavily on Penn Central service. PC cars moved one sixth of all U.S. coal; half of all coal shipments in Ohio and Pennsylvania originated on PC lines. One can sympathize with the shippers, civic leaders, and politicians who wrung their hands with dread during PC’s two-and-a-half-year struggle to forestall insolvency.  

Penn Central’s collapse shocked the nation and its financial markets just 28 months after the Pennsylvania and New York Central railroads had concluded their merger. The two companies were unaware of the magnitude of their expenses, especially regarding their excess properties. The two managements proved incompatible,

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uncooperative, and territorial. Although PC reduced some operational costs, its wages, fuel and maintenance prices, and taxes had all inflated. In December 1968, the ICC ordered PC to acquire the bankrupt New Haven Railroad for $90 million. This forced merger muddled Penn Central’s finances and complicated its “spaghetti” network of tracks. The DOT selected PC to run a demonstration project in the Northeast Corridor, but Congress did not cough up the funds. These new burdens expanded PC’s operational deficits, which ballooned from $140 million in 1968 to $220 million in 1969 and $100 million in just the first quarter of 1970. With a poor credit rating of “BB,” Penn Central owed almost $200 million by early 1970. PC belonged to a class of railroads for which deferments and new loans were not enough. The “vicious cycle” of collapsed earnings, lack of capital, and excess trackage had trapped the nation’s largest railroad. Although the federal government would eventually absolve PC of most of its tax and debt obligations, investors were unwilling to offer new loans. Penn Central declared bankruptcy on 21 June 1970, epitomizing the United States’ transition from its postwar golden age to an “Age of Limits.”

In the 28 years after World War II, U.S. manufacturing output expanded by 219 percent, but rail revenue grew by a meager 30 percent. Class I railroads (railroads with operating revenues above $10 million, which accounted for 99 percent of all rail traffic and 96 percent of all rail mileage) typically earned only 2-4 percent return on investment.
By contrast, telecommunications giant Bell earned 7 percent and automotive titan General Motors earned over 18 percent. Between 1950 and 1970, Penn Central’s rate of return slid from a weak 4.28 percent to a paltry 1.73 percent. Rail was unprepared to cope with the steady transition from manufacturing and resource extraction toward service- and technology-oriented business. The postwar demographic shift to the Southeast and Southwest, as well as from small towns and cities to suburbs, drained the shipping- and factory-centric North. Of the nation’s rail networks, those in the Northeast were by far the most redundant, outdated, and dependent on coal traffic. The introduction of environmental restraints on high-sulfur coal in the early 1970s also sheared away much of Northeastern rail’s most reliable and profitable customers.\(^{36}\)

To remain a viable and productive mode of transportation during the American economy’s time of crisis, Northeastern rail had no choice but to rationalize its complex system (see “fig. 3”). The overabundance of parallel main lines, unnecessary and uneconomic light-density branch lines, and outmoded repair and switching facilities precluded the industry from turning a profit or retaining its large workforce.\(^{37}\) The railroads—and, by extension, the nation’s entire freight-based economy—desperately needed to modernize their administration and logistics. During the 1970s and early 1980s, the reform of federal regulations finally brought U.S. railroading into the 20th century.

Institutional changes would interact with new environmental laws, growing concern for ecological and spatial problems, and the finitude of financial and natural resources.


Figure 3: Searching for a light at the end of the tunnel, reformers hoped railroad revitalization would improve the economy. Reform spelled changes for built and natural landscapes, too. The Moonville Tunnel once served a rural Baltimore & Ohio line. Covered in graffiti, the abandoned tunnel near Zaleski, Ohio, is now a hidden remnant of the material culture of railroading. Photo by author.
CHAPTER 3: THE EMERGENCE OF ENVIRONMENTAL AND PRESERVATION REGULATION, 1966-76

The United States needed Earth Day in 1970. The previous year, a devastating oil spill lapped ashore in Santa Barbara, California, and stretches of the Cuyahoga River in industrial Cleveland, Ohio, burned for the umpteenth time. More than just these flashy, disgraceful events captured headlines. Smog, ozone depletion, water contamination, habitat destruction, wildlife collapse, resource exhaustion, and other environmental ills worried a growing number of Americans. Not only activists and students, but also average folks across political and demographic spectra protested threats to their natural and human environments. Americans could no longer expect a boundless supply of clean air, fresh water, and fertile land. The decline of U.S. manufacturing, falling wages, lower domestic energy production, and job insecurity were but some of the characteristics of the 1970s. As historian Yanek Mieczkowski describes the decade, “The Great Inflation coincided with the increasing awareness of the fragility and finitude of planet earth. The idea of an ‘age of limits’ hit Americans especially hard because the postwar era had previously emphasized limitless growth and resources.” The “Age of Limits” depleted capital, natural resources, and national confidence.

Events of the day shaped the perception of both regulatory and ecological issues. Rampant inflation, the oil crisis of 1973-74, and the subsequent recession of 1974-75 brought regulation reformers and consumer and environmental advocates together.

Although deregulators often criticized environmental protections for reducing the nation’s productive capacity, few public officials denied the need for health, safety, and environmental reform. Advocates for change often tied these reforms with increasing efficiency in business and the national economy. When the costly energy crisis inconvenienced consumers and producers on a massive scale, many looked to railroads to offer energy-efficient transportation of both goods and people. John W. Barnum, an influential assistant transportation secretary, stressed that the nation’s intercity traffic should take advantage of rail’s “low per capita energy consumption.” Acknowledging rail’s past importance and future potential, the DOT wrote, “Railroads fed the hearths of an industrial revolution and now have renewed significance in the era of environmental and energy consciousness.” Revitalized and reformed, rail could serve modern urban centers and rural areas alike in an ecologically acceptable manner.  

Analyzing the Place of Railroads

The significance of the first Earth Day did not escape John Volpe. At a House appropriations hearing on 22 April 1970, the DOT secretary acknowledged how environmental and land-use activism had shaped his department. Volpe cited “increasing awareness and involvement of all our citizens” in solving ecological quandaries.

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Recognizing that virtually all transportation projects involved an environmental element, the DOT created an Assistant Secretary for Environmental and Urban Systems. This new office worked to meet obligations under the DOT Act of 1966, which required the department to ensure “all possible planning to minimize harm to the land.” Secretary Volpe said the DOT would strive to build projects “compatible” with neighborhoods, communities, and the natural landscape. Transportation bureaucrats had heard the public calls for social and ecological change.\(^\text{41}\)

Environmental advocates in government and academia seldom focused on rail, but their causes often supported rail indirectly. Urging Congress to reform land-use laws, Senator Henry Jackson, a Democrat from Washington, cited “proliferating transportation systems” as a primary source of the nation’s mounting environmental and energy crises. Unlike highways, rails’ land-use requirements were hardly “proliferating,” but rather shrinking. Biologist Barry Commoner urged business leaders and policymakers to consider power and energy consumption in “socially relevant terms” rather than as abstract commodities. Although he did not mention transport at a House hearing on energy in 1972, one might suppose that Commoner’s goal of reducing energy consumption meshed with a preference for fuel-efficient rail over conventional trucking.\(^\text{42}\)

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\(^{41}\) House, Subcommittee on DOT and RAA of the COA, *DOT and RAA for 1971, Section 3*, 91\(^{\text{st}}\) Cong., 2\(^{\text{nd}}\) sess., 1970, 838, 840-51; Report, “Urban Transportation Needs” (40-41), Folder “DOT, Issues – Background Information,” Box 15, Duval Files, GRFL.

The railroads, whether seeking to capitalize on public concerns or just commenting on the issue of the day, joined the fray. Ben Biaggini, the president of the Southern Pacific Railroad who often acted as an industry spokesman, urged that, “The nation as a whole must develop a conservation ethic with respect to everything: energy, consumer goods, capital goods, services and our natural resources. Saving and conserving should be popular and waste should be avoided.” Transportation reformers and industry leaders alike touted rail’s low rates of land use and fuel consumption as reasons for considering railroads over other modes.

Environmental groups and awareness proliferated after the first Earth Day. Polls in the mid 1970s showed that 60 percent of Americans would accept higher prices to protect nature. Forty-three percent were even willing to sacrifice some manufacturing plants and jobs, though as many were opposed. As the environmental movement matured during the early 1970s, much of the focus shifted from wilderness and wildlife preservation to land use, energy policy, and the quality of urban life and landscape. Resistance to new urban highway projects often included advocacy of rail and mass transit alternatives. In The Power Broker, biographer and historian Robert A. Caro assesses the ramifications of Robert Moses’ reconstruction of New York City. Reigning as the city’s chief urban planner from 1934 to 1968, Moses directed the demolition of huge swaths of low-income residences to clear space for thoroughfares and bridge spans. Although New York gained a modern road system, Moses’ devotion to the automobile

destroyed poor neighborhoods and decimated rail and public transit. New York’s story exemplifies the land-use costs inherent in funding highways at the expense of rail.45

Rail lines, yards, and stations integrated themselves into American society and its landscapes in the 19th century; highways did so on a grander scale in the 20th.46 Lewis Mumford, a mid-20th-century urban thinker and social critic, praised passenger rail but condemned freight facilities as a grave societal ill. The reading public knew Mumford better for his acerbic and fluent criticism of Robert Moses, but he also showed how construction of highways in the 20th century shared many attributes with rail lines in the 19th. Both occupied valuable land in urban centers and severed natural transit arteries. Although railroads brought factories, jobs, and commerce, they also spewed air, water, and noise pollution into lower class neighborhoods. “The wastage of space by railroad yards in the heart of the city,” writes Mumford in The City in History, “only furthered its more rapid extension outward.” He lamented both the social and spatial implications of railroading and heavy industry. Well after Mumford penned his critiques, U.S. cities continue to struggle with the physical and cultural marks of freight rail.47

Jane Jacobs, a contemporary of Mumford, found similar problems with railroads. She cherished diversity and chaos but abhorred excessive “rationality” and partitioning. In her seminal The Death and Life of Great American Cities, Jacobs discussed the concept of “borders”—single-use perimeters or barriers that segregate parts of a city.

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“Railroad tracks are the classics example of borders,” Jacobs finds, “so much that they came to stand, long ago, for social borders too—‘the other side of the tracks’—a connotation, incidentally, associated with small towns rather than big cities.” Like Mumford, Jacobs associated railroads with low-value, blighted, and worn out areas, not places of growth, prosperity, vitality, or aesthetic appeal. She implied that railroad tracks literally repelled people. Border areas near the tracks lost all diversity, became “infertile,” and discouraged foot traffic.48 Like cracks that spread and fracture a plane of ice, Robert Moses’ highways split New York neighborhoods in the 1930s-1960s just as rail lines had divided communities in the 19th and early 20th centuries.

During and after the 1960s, Mumford’s discussion of land use and Jacobs’ language on borders and blight infused plans to remove segments of decaying, unnecessary, and ugly urban rail infrastructure. Many facilities in the Northeast, which 19th-century planners had designed for smaller trains and cargoes, had become duplicative and archaic. Forty small, inefficient yards pocked Philadelphia; 50 yards operated within 50 miles of Detroit.49 The historic Central Pacific, part of the first transcontinental railroad, burdened tiny Elko, Nevada, with excessive freight line grade crossings and huge, empty switching yards. In 1975, fed up with traffic accidents and idling land, Elko sought federal funding to remove unsafe grade crossings and relocate the rail yards.

Wheeling, West Virginia, faced a similar conundrum. In evocative language, a 1975 White House report discussed Wheeling residents’ perception of the aged railroad infrastructure: “An unsightly viaduct [runs] along a main street…. [T]he community views the viaduct and the tracks along 17th Street as environmentally undesirable, as a physical and psychological barrier, as incompatible with adjacent land use, and as a deterrent to redevelopment and expansion of the Central Business District” [emphasis added]. The Chesapeake and Ohio Railroad once brought great prosperity to this Appalachian river town, but by the 1970s, Chessie lines strangled Wheeling. Countless other cities of various sizes confronted similar problems ranging from poor images to serious safety hazards. Rail line and yard relocation and abandonment not only made financial sense for railroads, but also promised environmental, social, and aesthetic benefits for many communities across the United States.50

Preservation and the Perception of Rail

As much as Mumford, Jacobs, and others wanted to rid cities of unpleasant and unsafe freight lines and yards, they vigorously defended passenger rail and stations. Mumford, who valued density and despised sprawl, praised those few “streetcar suburbs” that embraced light rail in the early 20th century. The train station concentrated businesses and residences within a limited walking distance, suggested Mumford. As Jacobs succinctly writes, “a railroad station interacts with its surroundings differently from a

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railroad track.” Whereas tracks bisected cities and blighted neighborhoods, stations had a richer purpose and helped strengthen community character and individuality. Jacobs earned a reputation for rallying inner-city middle-class groups to preserve historically and socially important buildings, including train stations. Her early motto “Don’t Tear It Down” embraced the notion that renewal of buildings like rail depots could help reinvigorate urban neighborhoods. Rather than see disused stations disappear, many cities and citizens groups bought and converted stations to new uses, such as restaurants, offices, museums, and municipal centers (see “fig. 4”). By recycling such symbolic buildings, communities recognized “the total environment that this country has inherited,” reported an urban planner in 1975. Of the 40,000 stations built during the course of railroading history, roughly half remained by the mid 1970s.51

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The postwar decline of Penn Station in Manhattan stood out as the signature example of poor management, maintenance, and planning. Lewis Mumford lambasted the Pennsylvania Railroad for its cheap and crass remodeling in the 1950s. Two of the PRR’s least tasteful actions: covering interior columns in “a light-hued plastic” and washing the walls, “as if to accentuate the dirt,” to a height of only ten feet. Senseless ticket counters placement, junky advertisements, and the installation of televisions created a “masterpiece of architectural and visual incongruity.” Mumford feared “a loss of faith in their trade, on the part of railroad men, that may hasten the demise of the railways.” He blamed the “bureaucratic fossilization of railroading.” Writing in 1958, Mumford found, “The only consolation is that nothing more… will do [the station] any further harm.”
Sadly, or mercifully, the destruction of Penn Station just six years later proved him wrong. Although the “tawdriness” of the station disappeared, a shining symbol of the lowbrow culture that Mumford disdained—an entertainment center—arose from the ashes. Preservationists credit Penn Station’s demise as the spark that ignited their cause. Within a few years of the station’s replacement, New York created a Landmarks Preservation Commission to protect and preserve historic buildings. The commission’s rulings tended to drive up real estate prices over vast swaths of the city, disproving Jane Jacobs’s theory that preservation keeps buildings affordable to rent and own.52

Other notable railway hubs met fates different from Penn Station’s. Congressional bungling, inflation, and poor planning led to the multi-decade Union Station debacle in Washington, DC. Originally slated to become the National Visitors Center, this subway-bus-rail terminal proved extraordinarily expensive to convert. After racking up massive deficits for years, developers scrapped most of the intermodal facilities (rail-to-truck or rail-and-bus) and repurposed the rest of the station as a shopping mall. Serving only a fraction of the passengers from the late 19th and early 20th centuries, major metropolitan stations from Baltimore and Boston to Denver and San Francisco had little choice but to downsize. The last train to depart Cleveland Union Terminal blew its final whistle in January 1977. Terminal Tower still graces the Cleveland skyline, but offices and a sad mall now fill the building. The station in Toledo, Ohio, became a municipal office building in 1995. Detroit’s downtown station remains standing, but has succumbed to

severe decay and vandalism. Cincinnati Union Terminal almost went the way of Penn Central (see “fig. 5”). In 1973—just 40 years after it opened—civic leaders, preservationists, and developers transformed the marvelous Art Deco station into an intermodal freight facility. The rail yard remained busy, but the station itself lay empty. In 1976, the Wall Street Journal advertised, “World-famous Cincinnati Union Terminal for lease—$1 per year!” Voters approved a $38 million levy in 1987 to convert the station’s interior into two history museums. Although all but one passenger track (and nearly all its passengers) had disappeared, the station’s fine architecture, murals, and presence remained intact.53

Calls for environmental and regulatory reform during the 1960s and 1970s mixed issues of urban transportation, preservation, and society. Cities did not automatically adopt policies to improve urban environments or save old buildings. The Demonstration Cities and Metropolitan Development Act of 1966 laid bare the challenges of considering the “total environment.” This legislation created a program to study how the “orderly development of metropolitan areas” and neighborhoods would not always balance environmental and commercial needs. Rail, which produced relatively fewer negative social and spatial externalities than highways, offered an attractive alternative. Yet few cities or neighborhoods benefited from or could afford to build rail networks. The

53 Jack Kanarek, “100 years of growth”: 38; Senate, Committee on Commerce, Preservation and Reuse of Railway Stations... (2-3); Craig Sanders, Amtrak in the Heartland, Railroads Past and Present (Bloomington: Indiana University Press, 2006), 256; “Cincinnati Terminal Threatened,” Preservation News, Oct. 1976, Folder “Historic Preservation – General (1),” Box 27, Massengale Files, GRFL.
railroads could barely save existing passenger lines, let alone extend services to new markets for the greater public welfare.\textsuperscript{54}

\begin{figure}[h]
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\caption{Visitors continue to enjoy the museums, architecture, and artwork of Cincinnati Union Terminal, but only one daily Amtrak train serves passengers. 
\textit{Photo by author.}}
\end{figure}

President Jimmy Carter’s Model Cities Program in the late 1970s built on the work of the Demonstration Cities Act. The initiative reached beyond rehabilitating “deteriorating buildings and facilities” and transportation networks. Carter sought to

ameliorate the underlying social and economic problems afflicting America’s cities, especially in lower class neighborhoods. The Model Cities Program built on citizen participation, yet many low-income inner-city populations had little “preservation consciousness.” Understandably, the aesthetics of a rail station or the fuel-efficiency of a rail line were less important than employment, education, law enforcement, and health services. Though compatible with many urban needs, rail struggled to find a place in American cities.\textsuperscript{55}

The preservation laws and activism that emerged alongside environmentalism in the 1960s and 1970s left a lasting imprint on rail lines and stations, both abandoned and functioning. The National Park Service had identified over 10,000 “historic properties,” many of which were urban and rural railway stations. To provide “better public services in urban areas and to the poor,” congressional budgets set aside modest sums to repair deteriorated rail beds. These projects created jobs, attracted further investment, generated tourism, and contributed “to an environment rich in diversity, memory, activity and design.” While reinvigorated rail buildings have stimulated employment and investment, researchers like Mayne and Glaeser would likely agree that preserved rail stations are “museums of the past” or “sentimental souvenirs” (see “fig. 6”). They doubt whether the benefits of preservation can outweigh upkeep, taxation, and resale costs.\textsuperscript{56}


Figure 6: The Altoona Railroaders Memorial Museum in Altoona, Pennsylvania, displays a variety of locomotives, railcars, and cabooses from the old PRR. Like many museums, it accepts that rail belongs to a bygone era. Photo by author.

The National Historic Preservation Act of 1966 reacted to the “accelerated pace of historical site destruction brought about by rapid social and technological change,” reported the Historic Preservation Advisory Council (HPAC). The law established the National Register of Historic Places and set the tone for future preservation bills, including an Environmental Protection Tax Act in 1975, which discouraged owners from demolishing old buildings. A host of bills in 1974-76 targeted rail station and line...
preservation. The Amtrak Improvement Act of 1974 included language on converting railway stations into intermodal facilities and civic centers, especially in larger cities. William Loftus at the DOT noted that “Development of intermodal terminals and preservation and reuse of historic railroad stations” often proved incompatible, since conversion from passenger to freight traffic altered the structure. The DOT, the National Endowment for the Arts (NEA), and the HPAC typically collaborated on rail preservation projects. The groups sometimes found themselves at odds, as the DOT tended to favor efforts to establish intermodal facilities, whereas the NEA and HPAC stressed architectural and cultural goals.57

The Bicentennial celebrations and election of 1976 highlighted preservation topics and occasionally focused on rail stations. Showcasing his common touch, Democratic presidential candidate Jimmy Carter established his hometown campaign headquarters in the Plains, Georgia railroad depot.58 During “National Historic Preservation Weeks,” the Ford Administration encouraged Americans to celebrate the “unique heritage” of old structures like “public buildings… industrial buildings… commercial structures,” and “railroad passenger stations.” The White House applauded efforts to revitalize and recycle urban and rural rail stations for “contemporary private, public, cultural, commemorative and other uses.” In an era of belt tightening, the administration touted preservation projects that saved construction materials, energy, and


land. S. 251, the Senate version of H.R. 1118, “would make unused rail passenger depots available as cultural centers.” Rail advocate Vance Hartke sponsored the comprehensive S. 1879 to “authorize the Sec. of Transportation to establish programs for conversion of abandoned railroad rights-of-way to bikeways, walkways, historic sites, and parks.” Another Hartke bill, S. 2056, aimed to “amend the Rail Passenger Service Act of 1970 [the law founding Amtrak] to clarify programs for promoting reuse of railroad passenger terminals.” These laws changed how Americans interacted with the built landscape.

The preservation, rails-to-trails, and environmental movements often intersected. All sought to retain the natural and human elements of rail history. In 1963, Illinois created the first rail trail, the Prairie Path, on the old bed of the defunct Chicago, Aurora & Elgin line. A few others followed in the 1960s and 1970s, but the boom in rails-to-trails conversion occurred in the 1980s and 1990s. Congress first discussed rail trails when it created the National Trails Systems Act of 1968. Senator Hartke’s preservation bill in 1976 renewed the rails-to-trails idea at the national level. Congress added a “railbanking” provision to the National Trails Systems Act in 1983. The railbank encouraged groups to convert rails to trails, but the government reserved the ability to reacquire rights-of-way for future uses. A congressional act in 1991 set aside 0.75 percent of federal highway appropriations for rails-to-trails projects and generated a tidy $800


million in just six years. As Richard Saunders suggests, the act “was a fine memorial to railroad dreams of the nineteenth century.”

Some lines, like the Katy Trail in Missouri, run across entire states, while others remain within city limits. Many programs sought to preserve or parcel out former rail lines. As regulatory changes in the 1970s normalized the rail line abandonment process, more segments of land became available for other uses. Between 1970 and 1999, the number of route miles dropped from 206,000 to just 122,000. Owners could either sell the land or designate it for utilities or mass transit systems. The narrow and linear nature of rail lines prohibited the construction of large buildings. State and local groups often looked at rail line abandonments as cheap and rare opportunities to create contiguous new green spaces, recreation areas, and tourist attractions within urban and rural corridors. The railroads had typically laid their routes on gentle grades and through a rich variety of landscapes. These corridors attracted potential buyers. In the 1980s, the Rails-to-Trails Conservancy began offering advice to towns and civic groups hoping to capitalize on newly opened stretches of land. Preservation of grand railway stations and humble branch lines alike informed the national discourse on the past and future of railroading.

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The National Environmental Policy Act of 1969

The social movement that emerged in the 1960s and matured in the 1970s encompassed far more than preservation. Crosscutting issues of the era included the environment, energy, safety, consumer affairs, and civil rights. At a time when railroad companies were imploding and struggled to cut unprofitable service, broad pieces of social legislation interacted, to varying degrees, with the future of rail transportation. The National Environmental Policy Act of 1969 stands out among the laws to affect the railroad industry, transportation planning, and regulation. With NEPA, Congress ordered the federal government to account for the environmental effects of its work. The DOT, ICC, and other executive and independent agencies would consider how their actions could shape both natural and human landscapes.

One of the chief architects of NEPA, Senator Henry Jackson, designed the bill to ensure that federal dollars bolstered environmentally and fiscally responsible projects. By coordinating their information and planning processes and drawing from a wider variety of sources, federal agencies would reach sound decisions. In his biography of Jackson, historian Robert G. Kaufman suggests that NEPA developed despite “public indifference, bitter turf wars between congressional committees and federal agencies, and the active opposition of the Nixon administration.” NEPA may have experienced a difficult birth in 1969, but its adoption by federal agencies in the early 1970s proved far messier, belabored, and irregular.  

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63 Report, “A Statement of National Transportation Policy by the Secretary of Transportation,” 17 Sept. 1975; U.S. Congress, Senate, Committee on Interior and Insular Affairs, National Land Use Policy, 92nd Cong., 2nd sess., Apr. 1972, 50-51; Robert G. Kaufman, Henry M. Jackson: A Life in Politics (Seattle:
NEPA added a new dimension to standard economic thought—the environmental impact statement. The statement, or EIS, incorporates “unquantified environmental amenities and values” into agency reports. An EIS lists unavoidable effects of a plan, offers alternatives, and considers short- and long-term land-use trade-offs. NEPA distilled Americans’ growing urgency about their natural resources and landscapes into a powerful new social law. This environmental reform shaped all subsequent railroad revitalization and broader transportation policy. Or at least Congress supposed it would.64

In the late 1960s and early 1970s, laws like NEPA, the Clean Air Act, the Water Quality Improvement Act, and the Noise Control Act mandated changes for federal agencies and executive departments. Although these laws clearly affected railroading, the Interstate Commerce Commission paid no heed to the EIS. Rate changes, line abandonments, and yard closures all included economic, environmental, and spatial components. Yet for the first two years under NEPA, the ICC hoped no one would notice that it was ignoring Congress’ order to account for environmental impacts. The discontinuance of a rail route could force shippers and communities to rely on less fuel-efficient transportation; rates for recyclable goods and scrap metal were higher than those for raw and virgin materials; the sale of a blighted rail yard reshaped urban and rural landscapes and affected property owners. Foremost, the ICC needed to study whether rail

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line closures would introduce trucks that consumed too much fuel, created more invasive “noise events,” or emitted more air and water pollutants.\textsuperscript{65}

Through NEPA, Congress explicitly stated that the public interest required the country to “approach the maximum attainable recycling of depletable resources.” The ICC had long approved rates for scrap and recycled metal that exceeded those for fresh ore and metal. Such discrimination not only failed to account for market costs, but also ignored clear environmental consequences. By allowing rates higher than most markets could bear, the ICC discouraged recycling, increased energy consumption, suppressed resource conservation, and burdened cities with more waste. Ore and metal producers benefited from artificial demand for their products, but misallocated costs hurt the railroads, the economy, and the natural environment.\textsuperscript{66}

A group of law students at George Washington University brought these serious concerns to the attention of the ICC in 1971. When the commission did not respond to their charges and proceeded to raise rates on recycled and recyclable materials, the students sued through their group SCRAP, “Students Challenging Regulatory Agency Procedures.” SCRAP member Neil Proto became a law professor and described his experience in \textit{To a High Court: The Tumult and Choices that Led to United States of America v. SCRAP}. As Proto’s title suggests, the case reached the Supreme Court. The students argued that inefficient and discriminatory ICC rates led shippers to switch from


\textsuperscript{66} Senate, Subcommittee on Environment of the Committee on Commerce, \textit{Resource Conservation and Recycling}, 93\textsuperscript{rd} Cong., 1\textsuperscript{st} sess., 1974, 3; Proto, \textit{To a High Court}, x, 100.
rail to trucking. This shift produced more noise and air pollution, added highway repair costs and congestion, and contributed to urban blight, all of which harmed the students’ lives, communities, and environments. Once the justices recognized the students’ standing to sue, they found the ICC had violated NEPA for failing to issue an EIS for rate increases. Although the court dismissed the students’ demand for $1 billion in refunds from the ICC, it handed a major victory to the environmental movement. The case not only established a precedent for handling “standing to sue” issues, but also forced the ICC to account for the environmental impacts of its recommendations and reports. The ruling shaped both railroad ratemaking and discourse on the effects of different transportation modes on natural and built environments.67

By permitting the railroads to overcharge scrap and recyclables, the ICC had effectively encouraged the extraction and processing of nonrenewable resources. Counter to U.S. environmental objectives and NEPA, the ICC had not considered that one commodity’s rate could affect the movement of another commodity. When the ICC finally adjusted the rates for recyclables, railroads subsidized a less profitable service and misallocated resources, “albeit in the name of a good and necessary public policy,”

67 Proto, To a High Court, xi, 32-34, 75-77, 97-100; McCraw, Prophets of Regulation, 284. The GWU law students began their exploration of ICC ratemaking for a class assignment; their project quickly took on a life of its own. At a House subcommittee hearing in 1975, Robert J. Brooks of the ICC Office of Proceedings described the process they eventually adopted: “A threshold assessment must be made on the environmental impacts, followed by a public announcement of the Commission’s findings, and time must be given for the public to comment. If the Commission then decides that the case involves a major Federal action having significant effects on the environment, at that point a draft EIS is prepared and published. It goes out and comments must come back to us on that. Once that happens, a final impact statement is prepared, and we then can go to hearing on the merits of the case. All of this is time consuming.” House, Subcommittee on the DOT and RAA of the COA, DOT and RAA for 1976, Section 3, 94th Cong., 1st sess., 1975, 924.
Chairman Stafford noted. Ultimately, the recyclable rate change switched one inefficient practice for another.\textsuperscript{68}

Further legal decisions shaped how agencies adopted the EIS. Another court ruling, the \textit{Harlem Valley} case, involved the ICC and the financially strapped Harlem Valley Railroad. The railroad sought to abandon part of its network, which would affect local economies and environments. Since the abandonment petition originated before the passage of NEPA in 1969, the ICC felt no compulsion to draft an EIS. The 1973 court ruling determined that NEPA applied to projects retroactively. Facing a stack of EIS cases, the ICC suddenly needed an environmental staff. The commission hired and consulted space planners, biologists, environmental scientists, and various lawyers and engineers. The ICC did not issue protocol for drafting EISs until 28 March 1972. Later that year, the Council on Environmental Quality (CEQ) denied the ICC request to delegate EIS responsibilities to other agencies, railroads, or third parties. In June 1973, the U.S. District Court of New York ordered the ICC to assess each abandonment case to determine whether a project merited an EIS. Such environmental considerations were foreign to the old-fashioned commission, which resisted developing another administrative focus.\textsuperscript{69}

After a railroad and its shippers culled information on each abandonment petition, the ICC paid for the cost of researching, drafting, and disseminating EISs. In 1974, 


\textsuperscript{69} House, Subcommittee on the DOT and RAA of the COA, \textit{DOT and RAA for 1976}, 94\textsuperscript{th} Cong., 1\textsuperscript{st} sess., 1975, 924, 935, 940; Saunders, \textit{Main Lines}, 95.
Chairman Stafford suggested that the ICC would need to “triple or quadruple” its staff just to handle the EIS workload. Indeed, the Office of Proceedings “Section of Environmental Quality” (SEQ) personnel grew from zero to three in 1974 and to 23 by 1977. The ICC struggled to keep up with its staggering EIS caseload. Chairman Stafford pled to Congress annually for more funds and staff to meet environmental obligations. The SEQ could not possibly participate in all 20,000 railroad cases each year. Instead, the office reviewed about 2,200 cases and wrote only 75 EISs for instances with the most significant effects on the human environment.70

NEPA required the commission to distribute impact statements to the Environmental Protection Agency (EPA), CEQ, other agencies like the Department of the Interior and the DOT, and interested parties. After the SCRAP case, any organization could claim that a rate would affect the environment, obligating the ICC to investigate environmental impacts. More than just adding to the commission’s enormous backlog, the EIS requirement also allowed shippers to cry foul and seek unfair attention or private gain. George Stafford, the ICC chairman, claimed to share “public concern over deterioration of our natural surroundings caused by pollution and by the misuse and depletion of our land and natural resources.” Yet his tone and word choice at hearings always indicated that the ICC abided by NEPA begrudgingly. The task of reviewing the

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70 Senate, Subcommittee on Environment of the Committee on Commerce, Resource Conservation and Recycling, 107, 119-20; Senate, Subcommittee of the COA, DOT and RAA for FY 1975, Section 1, 93rd Cong., 2nd sess., 1974, 783, 789-90.
environmental effects of rail line abandonments expanded the ICC in ways that Stafford had hoped to avoid.\textsuperscript{71}

Major environmental reforms also shaped the Department of Transportation. Unlike for the ICC, the act creating the DOT explicitly required the agency to review “transportation projects impact on historic sites, parklands, wildlife refuges, etc.” Section 4(f) of the Department of Transportation Act of 1966 prevented the DOT secretary from approving plans that would harm public natural and cultural resources. If no “feasible or prudent” alternative existed, the secretary would seek to minimize damage to so-called “4(f) lands.” When President Nixon signed NEPA into law in January 1970, the DOT also became responsible for issuing EIS, or “102 statements.” The DOT Act, NEPA, the Historical Preservation Act, the Urban Mass Transportation Act of 1970, the Clean Air and Water Acts, various EPA rules, CEQ procedures, and noise and wildlife protocols all guided federal transportation planning. Virtually all DOT programs, projects, and studies included an environmental component. By 1971, the DOT predicted that it would produce 90 EIS and 4(f) reviews that FY, 400 the next, and 600 the following year.\textsuperscript{72}

Although the vast majority of DOT environmental cases dealt with highway and airport construction, the department assessed railroad projects as well. Most rail issues concerned route realignments, line abandonments, and grade crossings. Several

\textsuperscript{71} House, Subcommittee on DOT and RAA of the COA, \textit{DOT and RAA for 1973}, Section 2, 92\textsuperscript{nd} Cong., 2\textsuperscript{nd} sess., 1972, 986-87, 1017, 1020, 1071-74; Senate, Subcommittee of the COA, \textit{DOT and RAA for FY 1975}, Section 1, 93\textsuperscript{rd} Cong., 2\textsuperscript{nd} sess., 1974, 788; House, Subcommittee on the DOT and RAA of the COA, \textit{DOT and RAA for 1976}, Section 3, 94\textsuperscript{th} Cong., 1\textsuperscript{st} sess., 1975, 785, 794-96, 817-19, 873, 924, 935.

\textsuperscript{72} House, Subcommittee on DOT and RAA of the COA, \textit{DOT and RAA for 1971}, Section 3, 91\textsuperscript{st} Cong., 2\textsuperscript{nd} sess., 1970, 557-58; House, Subcommittee on DOT and RAA of the COA, \textit{DOT and RAA for 1972}, Section 3, 92\textsuperscript{nd} Cong., 1\textsuperscript{st} sess., 1971, 824, 880; Report, “Urban Transportation Needs” (40-41), Folder “DOT, Issues – Background Information,” Box 15, \textit{Duval Files}, GRFL; House, Subcommittee on DOT and RAA of the COA, \textit{DOT and RAA for 1978}, Section 5, 95\textsuperscript{th} Cong., 1\textsuperscript{st} sess., 1977, 304-05.
improvements to the Northeast Corridor involved routing tracks through forests or near parks, which triggered the DOT’s review process. A case in 1972 addressed the problem of trains killing 160 moose per year in Alaska and Maine. After determining that some train whistles sounded like moose mating calls, the Federal Railroad Administration (FRA) asked railroads to alter their signals to protect moose populations.\(^73\)

John Volpe, the first transportation secretary under President Nixon, rightly said that his department had addressed its impacts on the landscape before “environment became popular.” Yet unlike the 4(f) cases, which the DOT had handled since 1966, the department took several years to tackle the EIS process. As at the ICC, the DOT was reluctant to add new layers of environmental review. To handle the department’s dual responsibility for impact statements and 4(f) lands, Volpe created an assistant secretary for “Environment and Urban Systems,” which the department abbreviated as “TEU.” This new office highlighted the connection between transportation and spatial change in American cities. Recognizing that “transportation facilities are really environments in themselves,” the DOT had begun to consider aesthetic, social, and landscape qualities.\(^74\)

Some early TEU impact statements failed to meet federal standards. In the 1971 case *Citizens to Preserve Overton Park v. Volpe*, the Supreme Court reaffirmed the need to treat parks with care and ordered the DOT to reevaluate its environmental review process. Activists in Memphis had objected to a plan to lay a highway through Overton Park, a public space that qualified for 4(f) protection. Unlike the information-gathering

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\(^73\) House, Subcommittee on DOT and RAA of the COA, *DOT and RAA for 1973, Section 3*, 92nd Cong., 2nd sess., 1972, 497.

impact statements of NEPA, 4(f) cases required the DOT to submit actionable alternatives. In Memphis, the DOT chose to bypass the park and route the highway through an urban neighborhood instead. The Overton Park case pertained specifically to the DOT, but the ruling would later shape impact statements under NEPA. In response to Overton Park, the DOT established new EIS procedures in late 1973. Secretary Volpe acknowledged the importance of environmental goals, but expressed frustration that new social laws delayed projects, added layers of paperwork, and exposed the department to costly lawsuits. Like Stafford at the ICC, Volpe doubted whether the DOT needed to draft an EIS for each project.75

In an era of tight budgets, the EIS process consumed valuable department resources. Within transportation law, environmental issues were among the most complex, costly, and litigious. Other agencies that oversaw large landscape and spatial projects, like the Fish and Wildlife Service and the National Park Service, complained about the increased backlog and workload from the “EIS burden.” Before becoming a Supreme Court justice, Stephen Breyer wrote in Regulation and Its Reform that NEPA “has probably halted many agency projects that would have caused environmental damage.” NEPA encouraged citizen participation and ensured that agencies consider environmentally sound alternatives, but it imposed many costs as well.76

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The DOT and Environmental Research

When John Volpe testified to a House subcommittee on Earth Day 1970, he was frustrated that many environmental advocates did not acknowledge the federal government’s attention to nature, ecology, and the American landscape. The DOT’s new office for Environment and Urban Systems addressed those very issues. According to its mission statement, the TEU devised programs “to make transportation serve as a tool for enhancing the social, aesthetic, economic, and environmental surroundings” and to preserve “historic, cultural, and natural aspects of our heritage.” The bureaucrats at the TEU had their work cut out for them. Seeking to lessen the impact of transportation on the environment, the TEU found great value in the railroads’ fuel efficiency, low emissions, and small land use. As Americans grappled with automobile and truck traffic, noxious smog, the energy crunch, and the huge land requirements of highways, railroading appealed to transportation planners. The TEU sought to blend urban rail systems with their human and natural environments.77

At a hearing in 1971, a TEU representative said that his office studied “the relationship between local short-term uses of man’s environment and maintenance and enhancement of long-term productivity.” One major TEU project assessed landscape degradation, the effects of ecology and preservation, and the “sound, environmental, aesthetic, and economic factors of transportation improvements.” With a price tag of $600,000, this project was relatively small and cheap. The study considered highways,

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air, mass transit, and rail. Another program investigated how to save land by converting urban rail stations to intermodal facilities. A third project explored “the interrelationship of transportation systems with the location, pattern and direction of growth of urban communities.” The TEU examined how highways, rail lines, and switching yards either complemented or severed neighborhoods and cities. Transportation policymakers had finally acquainted themselves with Mumford and Jacobs. Railroads, long a fixture in the urban landscape, were important to new studies of urban development.\(^{78}\)

The DOT continued to assess environmental and spatial topics as the 1970s progressed, but gradually shifted its focus toward other topics. In 1973, the department merged the TEU and the office of Policy and International Affairs into a new branch, the office of Environment, Safety, and Consumer Affairs (TES). The reshuffle highlighted the common links among environmental, consumer, and community advocacy groups. As an umbrella office, the new TES diluted the department’s study of ecology and landscape. In congressional hearings, participants focused overwhelmingly on safety concerns, which pushed issues like efficiency, blight, and emissions aside. The TES continued to draft EISs for projects that affected human and physical landscapes, but its commitment to the study of environmental questions diminished. The DOT coordinated some TES projects with the Office of Transportation Energy Policy, which sought to reduce fuel consumption while promoting mobility. Reflecting the “Age of Limits,” the DOT addressed more and more issues related to petroleum use and consumer safety.\(^{79}\)

\(^{78}\) House, Subcommittee on DOT and RAA of the COA, *DOT and RAA for 1972*, Section 3, 92\(^{nd}\) Cong., 1\(^{st}\) sess., 1971, 821, 954-61.

\(^{79}\) House, Subcommittee on DOT and RAA of the COA, *DOT and RAA for 1973*, Section 3, 92\(^{nd}\) Cong., 2\(^{nd}\) sess., 1972, 104-15; House, Subcommittee on DOT and RAA of the COA, *DOT and RAA for
The TES occasionally discussed rail noise abatement, hump yard efficiency, and line abandonment, but highways, automobiles, and aircraft remained much more critical to U.S. transportation trends. When members of Congress or the DOT brought up rail, they touted its environmental compatibility but balked at its cost and lack of appeal outside the Northeast Corridor. In his memoir *Counsel for the Situation*, former Transportation Secretary Coleman mentions his plan for departmental reorganization to revitalize the environment office. Coleman suggests that had the incoming Carter Administration adopted his proposal, the new environment office would have trimmed U.S. fuel consumption. Though he was wary of government-funded railroads, Coleman recognized that rail was a vital component in any national transportation strategy to save energy. 80

Where the TEU/TES office guided transportation environmental planning but focused relatively little on rail, the Federal Railroad Administration only occasionally studied issues of the human and built landscape. The FRA, the nation’s leading rail agency, concentrated primarily on safety concerns like improving road-rail grade crossings and removing hazards from rights-of-way and work yards. Lacking statutory authority to regulate the environmental practices or efficiency of railroads, the FRA performed studies and offered suggestions. In 1970 the FRA researched the problem of metropolitan expansion around existing rail facilities. One of its ongoing projects worked with railroad companies and cities to consolidate urban rail yards, remove sources of

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blight, and free land for redevelopment. The FRA pollution program investigated ways to reduce fumes and noise from trains and switchyards, as well as eliminate sparks that posed hazards to brush and grass along rail tracks.81

Within the DOT, the FRA enjoyed a relatively meager budget and commanded little attention over national transportation policy. During hearings, members of Congress typically dwelled on rail safety. However, the FRA persistently offered advice on boosting energy efficiency, cutting land use and emissions, and enhancing the place of rail in nature. For instance, in the early 1970s, the FRA began to study rail crosstie “reconstitution,” a process that involved injecting plastic into recycled wood pieces. Railroads typically preserved their ties with creosote, which often leached chemicals into nearby soil and water systems. Once crossties had become too worn or corroded, the railroad would simply burn the wood, releasing more toxins. The program pursued several goals: reduce the cost to lay or repair a rail line, change the composition of ties to cut pollutants, and conserve timber supplies.82

The FRA also researched ways to increase railroads’ efficiency, including by shifting freight from trucks to trains at intermodal facilities. Especially in the Northeast, many railroads struggled to squeeze the most out of their railcars and yards. The FRA developed procedures and tools to streamline yard operations and keep cars moving for more days per month. Using these techniques, rail companies spent less time, fuel, and labor, thus increasing their profitability and productivity. With the oil shock of 1973-74,

82 House, Subcommittee on DOT and RAA of the COA, DOT and RAA for 1973, Section 3, 92nd Cong., 2nd sess., 1972, 506, 509; Senate, Subcommittee of the COA, DOT and RAA for FY 1973, 92nd Cong., 2nd sess., 1972, 422, 446.
the DOT intensified its programs to conserve energy. The department funneled most of its conservation research into automotive projects, but it also researched ways to bolster environmentally acceptable mass transit alternatives and raise locomotive fuel efficiency. In 1974, the FRA began a program to rehabilitate Penn Central’s main, branch, industrial, and yard lines. The project recuperated only a fraction of the PC system, but overall safety and viability improved substantially. Both the national economy and environment benefited from these upgrades in rail logistics.\(^83\)

Economic reforms and environmental regulations alike affected the FRA. Asaph “Ace” Hall, an FRA leader during the Ford presidency, said the Railroad Revitalization and Regulatory Reform Act of 1976 (4R) would help the nation’s railroads “turn the corner.” Hall and the FRA opposed adding unnecessary layers of regulation and inspection, trusting instead in better training of rail personnel. Yet human error accounted for only some of rail’s woes. The physical deterioration of the nation’s rail lines posed safety, environmental, and financial hazards. The 4R Act acknowledged that many lines required immediate attention, but the FRA saw little need to rehabilitate thousands of miles of unprofitable light-density lines (LDL). The FRA helped to determine whether abandonment would result in unemployment or environmental degradation. In 1976, the FRA found almost 5,800 miles of LDLs that merited subsidy. Nearly every route realignment, bridgework, or repair of a rail right-of-way included an environmental

\(^83\) Senate, Subcommittee of the COA, DOT and RAA for FY 1974, 93\(^{rd}\) Cong., 1\(^{st}\) sess., 1973, 200, 242, 705; Senate, Subcommittee of the COA, DOT and RAA for FY 1975, Section 1, 93\(^{rd}\) Cong., 2\(^{nd}\) sess., 1974, 219-20, 466-67, 530-32; Senate, Subcommittee of the COA, DOT and RAA for FY 1976, Section 1, 94\(^{th}\) Cong., 1\(^{st}\) sess., 1975, 85-87; House, Subcommittee on the DOT and RAA of the COA, DOT and RAA for 1976, Section 5, 94\(^{th}\) Cong., 1\(^{st}\) sess., 1975; Report, DOT news bulletin, 14 Jan. 1976, Folder “Federal Railroad Administration,” Box 41, Hope Files, GRFL.
component. Many of these rehabilitation projects involved Amtrak and Conrail. The FRA, which contributed to the DOT’s impact study process, sought to issue a comprehensive EIS to illustrate the environmental and economic benefits of Amtrak’s Northeast Corridor project. Through its small but informative environmental projects, the FRA showed how a renewed rail system could improve U.S. urban and rural landscapes.84

Land Use and the Railroads

The movement that produced NEPA inspired a variety of other congressional actions. Senator Henry Jackson drafted two versions of a National Land-Use Policy Act (NLUPA) in the early 1970s. A Democrat from Washington, Senator Jackson sought to rationalize patterns of land development. Whereas NEPA pertained to federal action, NLUPA proposed to shape how private individuals, corporations, and state and local governments conducted their business. With federal aid, states would encourage land developers to choose environmentally sound options and tame rampant sub/urban sprawl. Like NEPA, Jackson’s NLUPA would produce ways to gather both economic and ecological information. As the senator said in a 1972 hearing, his bill aimed to “influence patterns of population distribution in a manner such that a wide range of scenic, environmental, and cultural amenities are available.” In response to Jackson’s efforts to reform U.S. land-use policy in 1972, the DOT reported that it sought to “minimize environmental damage while promoting economic efficiency in land use choice.”

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Although highways absorbed much of the department’s attention, it recognized rail’s low land-use requirements and potential for high efficiency and environmental compatibility.\textsuperscript{85}

Any shift of people and their commerce would affect transportation networks, including the nation’s railroads. In a Senate Interior and Insular Affairs hearing in 1971, Jackson invited Southwestern electricity producers to discuss their environmental practices. One plant manager detailed his company’s comprehensive study of emissions, water pollution, land-use strategy, and various impacts on a local Navajo community. The company analyzed multiple routes for laying a rail track to supply the plant with fuel. The manager said they chose the option that exhibited “positive environmental and ecological advantages” over more disruptive routes. Although this example does not imply that all power producers and rail companies studied their land-use requirements with such rigor, it does suggest that, to a degree, corporations had begun to account for their environmental impacts and societal responsibilities. Of course, the manager at this hearing represented a coal plant; the economic, social, and environmental implications of his operation wafted far beyond its property line.\textsuperscript{86}

Ultimately, land-use reform failed at the federal level, but its debate opened a national dialogue on land and property policy. Senator Jackson amended his bills and sought compromise with the Nixon Administration, but the president was wary of


\textsuperscript{86} Senate, Committee on Interior and Insular Affairs, \textit{Problems of Electrical Power Production in the Southwest}, 92\textsuperscript{nd} Cong., 1\textsuperscript{st} sess., 1971, 1599-1608.
deepening federal involvement in state and local affairs and withdrew his support. Seeking to maintain the status quo, property rights advocates lobbied against passage of land-use reform. Mike Duval, a Nixon aide who also worked for President Ford, later said that NLUPA “posed a threat to traditional American beliefs about the sanctity of private property and would permit Federal control over State and local land use policies and decision.” Duval’s assessment was quite true, for NLUPA conceived of land as part of a vast, interconnected natural and social system, not simply an abstract commodity. In 1974, the House chose not to debate NLUPA, killing the bill and Jackson’s push for change.  

Historian Adam Rome suggests that while NLUPA failed to instill a “new land ethic” in government or the American people, many states and municipalities developed land-use guidelines against unabated growth and landscape degradation. Since the early 1970s, these state and local laws have shaped railroads’ efforts to abandon individual lines and rationalize whole rail systems. In 1977, the DOT observed how “increasing activism in land-use policymaking… can have far-reaching implications for local transportation.” A rail line hauling the same volume of goods as a multi-lane expressway occupies only one sixth as much land. For this simple ratio, advocates of low-impact land use will continue to support rail alternatives when possible.

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87 Rome, The Bulldozer in the Countryside, 245-47; Talking points from Chicago speech, Jul. 1974, Folder “Duval Speeches and Travel – 7/26/74, White House Conference – Chicago,” Box 2, Duval Papers, GRFL; Memo, Mike Duval to the Vice President, 27 Feb. 1975, Folder “Vice President Rockefeller – Meetings,” Box 25, Duval Files, GRFL; Report, “Natural Resources and Transportation,” 19 Aug. 1975, Folder “Meeting with the President: 8/19/74, Domestic Council Staff,” Box 4, Duval Papers, GRFL.

Pollution and Energy Consumption

Beginning in the early 1970s, pollution laws and oversight agencies affected the railroad business directly and indirectly. To comply with the Noise Control Act of 1972, the railroad industry spent an estimated $110-148 million to retrofit its engines to meet noise standards. However, most impacts hit the railroads through their customers. Historian Samuel P. Hays finds that most economists and environmentalists “accepted the idea that pollution created an economic burden to the society… rather than a benefit.…. [Pollution] involved a cost not internal to the firm’s own balance sheet, but a cost imposed on society.” By the 1960s, air, water, soil, and noise pollution had burdened people and their environments with expensive “negative externalities.” Aircraft, automobiles, barges, buses, trucks, and rail all emitted varying levels of harmful pollutants for which they did not have to pay. The federal government wielded restrictions, subsidies, and regulations to ensure that prices for goods and services would reflect true production costs. In addition to pollution control, the government identified three other types of environmental protection: avoidance, enforcement, and abatement. To calculate and minimize these costs, Congress funded the Environmental Protection Agency (EPA), the Council on Environmental Quality, and myriad prescriptive and regulatory laws.


Railroads felt the impact of this new federal intervention. When he signed NEPA into law in January 1970, President Nixon said, “It is literally now or never” to act on behalf of the environment. “To make our peace with nature,” the federal government would need to take bold action. Through NEPA, Congress created the Council on Environmental Quality to “ensure comprehensive planning and decision-making” within the executive branch [emphasis in original]. During the Nixon and Ford administrations, the CEQ helped guide policy on pollution, land-use reform, strip mining, oil drilling, trucking and rail fuel consumption, and other environmental concerns. Although Nixon built strong environmental credentials and supported NEPA and the CEQ vigorously in early 1970, other issues, especially foreign policy, turned his attention away from the environment. For the rest of his administration, Nixon under-utilized the CEQ. His successor, Gerald Ford, displayed even less interest in the agency. The CEQ continued to inform executive policy goals and proposals, but it struggled to find advocates in the Republican White House of the 1970s.91

Before turning to other pieces of his agenda, President Nixon wrote an executive order to create the Environmental Protection Agency to devise and enforce new federal pollution standards. Building on NEPA’s interagency information sharing, Nixon designed the EPA to develop expertise in guiding agency decisions. The EPA was

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responsible for enforcing new pollution-control laws like the Clean Air Act (CAA) of 1970 and the Clean Water Act of 1972. Congress wrote these laws in part to respond to public outcry over the lack of adequate pollution controls at the state or federal level. Congress had passed earlier air control acts in 1955, 1963, and 1967, but these proved inadequate. Pollution control laws in the 1970s were effective enough to draw the ire of U.S. manufacturers and rail carriers.⁹²

The Clean Air Act of 1970 established ambient and emission standards for carbon monoxide (CO), nitrogen oxides (NOₓ), ozone (O₃), sulfur dioxide (SO₂), lead, and very fine particulates. Many of the manufacturers that shipped their products on U.S. railroads emitted these pollutants. Faced with new emissions standards, some factories and plants faced serious cost-benefit choices. The CAA had significant economic and spatial consequences for the railroads. Appalachia and the Illinois Basin, which contained high-sulfur (and thus high-pollution) coal, lost much of their business. The decline of coal production in these areas came at a time when Northeastern and Midwestern railroads were at their weakest. The newfound preference for low-sulfur coal in regions like the Powder River Basin in Wyoming and the Uintah Basin in Colorado and Utah shifted railroad traffic westward. Steady demand for western coal was a huge boon for railroads like the Union Pacific and the Burlington Northern. The decline of coal in the early part of the 1970s contributed directly to the construction of new oil-burning power plants. President Ford sought to reverse this trend through Project Independence. The devastating oil shock of 1973-74, ongoing fluctuations in the railroad industry, and

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environmental standards intertwined with one another throughout the rocky “Age of Limits.”

Criticism of new environmental regulations flowed into the White House from all corners. Governors complained that the EPA had stripped states of decision-making authorities. Business owners fretted over new production costs. At public forums in 1975, concerned individuals protested the standards of the EPA and the Occupational Safety and Health Administration, two of the major federal health oversight agencies. A member of the Ford team with a penchant for alliteration recalled “one businessman [who] voiced a common concern when he objected to the ‘chaotic confusion of conflicting, contradictory, costly, and confounding regulations.’” Contemporary economists questioned the efficacy of laws like the Clean Air Act. In The Politics of Deregulation, Martha Derthick and Paul J. Quirk write that the CAA “epitomized for the economically oriented the irrationality and extremism of much of the new social regulation.” They find that “by far the most costly both to governments and businesses was that designed to control air and water pollution.” Through their customers, railroads bore part of the economic burden of environmental regulations.

Advocates of reform highlighted differences between economic and social regulations. In the case of railroads, economic regulation did nothing to bolster

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93 Breyer, Regulation and Its Reform, 262-63; Brian Solomon and Patrick Yough, Coal Trains: The History of Railroading and Coal in the United States (Minneapolis: Voyageur Press, 2009), 84-85; Report, “Union Pacific Corporation 1975 Annual Report” (15), Folder “Union Pacific Corporation,” Box 42, Hope Files, GRFL; Mieczkowski, Gerald Ford and the Challenges of the 1970s, 199.

competition or profitability in a very weak industry. The rules that guided railroading had simply outlived their usefulness and required either significant amendment or abandonment. Social regulation, said its critics, did not work because it was inefficient and ineffective. For example, a 1977 White House report discussed the case of a polluting steel plant. The EPA allowed the plant to implement pollution controls over three years. When the plant did not curb its emissions, the EPA granted a one-year extension. After the plant ignored the extension, too, the EPA sued the plant for $5,000. The plant happily paid the fine and continued to pollute with no legal consequences.95

Some EPA standards proved economically and politically infeasible to enforce. Citing high costs during the fragile economy, Congress extended deadlines during each of the administrations in the 1970s. Stephen Breyer suggested that “companies plausibly claimed that the standards simply could not be met—and neither environmentalists nor the EPA could prove the contrary.” To meet 1977 and 1983 standards, a 1975 White House report found, the iron and steel industry would have to spend $15.1-17.1 billion (in addition to the $2.9 billion it had already spent) on control. By inflating operating costs by eight to ten percent, or $25-30 per ton of metal, such measures could have devastated much of the nation’s manufacturing and transportation sectors, including the railroad industry.96

Predicting the backlash against pollution standards, the Clean Air Act of 1970 included a provision to study “firms that had allegedly gone out of business because of

pollution-control requirements.” As Samuel Hays notes, the EPA’s “ensuing reports demonstrated that job loss was due to production obsolescence far more than to pollution-control requirements.” Perhaps cases of business failure were due not to an overzealous and misguided federal government, but rather to the free market. By internalizing environmental costs, new regulations created prices more reflective of the costs to society. These examples demonstrate the trouble inherent in comparing stark, calculable economic costs with vague, difficult-to-quantify environmental and social benefits.97

The railroads rightly argued that other modes were the polluters. At a transportation industry conference on inflation in September 1974, rail executives touted their relative fuel efficiency, lower particulate and noise emissions, and small, fixed land-use requirements. Ben Biaggini of Southern Pacific remarked, “The railroads do far less to harm or disturb the environment than most other forms of transportation, yet they are continually required to make non-productive expenditures in the name of water and air pollution control, noise abatement and the public health.” Lou Menk of Burlington Northern suggested, “In order to preserve environmental values, the government should adopt policies which encourage a return of traffic to the rails.” These railroad leaders worried about higher wages and prices as well as environmental controls that hampered their activities and shippers. Stronger industries, especially trucking, should bear the brunt of removing negative externalities from transportation, said rail men like Biaggini and Menk. The railroads urged the new Ford Administration to “stretch-out” new pollution control timetables. They contended that EPA regulations contributed to inflation both within railroading and the economy as a whole. Price fluctuations

97 Hays, A History of Environmental Politics since 1945, 159-60.
magnified the risks of the high fixed-cost, low return-on-investment industry. Railroad executives pointed to inflation and economic and environmental regulations as the biggest obstacles to their resurgence; the Ford Administration agreed.98

“But he doesn’t care about the environment”

Gerald Ford, whose 29-month presidency lasted from August 1974 to January 1977, acknowledged, but generally tended to ignore, economic-environmental predicaments. A moderate conservative, Ford sought realistic ways to cut waste, balance the federal budget, and reduce regulation of the private sector. Ford believed that excessive government regulations contributed to inflation, economic stagnation, and the energy crunch. The president recognized how shortages of food, commodities, transit capacity, and funds for environmental protection posed serious obstacles for the weak economy. Many scholars credit President Ford with popularizing the notion that deregulation at all levels of government could jumpstart fragile transportation sectors. Acting as the “chief economic officer of the national economy,” as Ford historian Yanek Mieczkowski suggests, the president sympathized with truckers and railroads, factory owners, miners, and resource-intensive power producers. Industry collapse, job loss, and declining tax revenues threatened the Northeast and Midwest. Factory- and rail-dependent places like Youngstown, Ohio, which shed 38 percent of its manufacturing jobs during the 1970s, suffered the most. President Ford sought to prop traditional

industries, many of which shipped their heavy and bulky goods over long distances on rail. But before the railroads could take advantage of this support, the economy needed to rebound.99

In its determination to stem inflationary pressures, boost industrial output, and stimulate job growth, the Ford Administration devoted little attention to air and water pollution control laws. At the National Federation of Independent Business Conference on 17 June 1975, President Ford described his perception of new social regulation:

> Although most of today’s regulations affecting business are well-intentioned, their effect, whether designed to protect the environment or the consumer, often does more harm than good. They can stifle the growth and our standard of living and contribute to inflation… But let us evaluate the costs as well as the benefits. The issue is not whether we want to control pollution—we all do. The question is whether added costs to the public makes sense when measured against actual benefits.100

The Ford Administration did not ignore pollution or ecological issues outright, but its pursuit of an appropriate “balance” between broad economic and environmental goals invariably favored the former. In 1976, Ford’s advisors helped draft the Republican platform, which advised “an up-to-date balance must be struck between the desire for environmental purity and the necessity for greater domestic energy production”

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100 Memo, Edward C. Schmults and Paul MacAvoy to department and agency officials, 25 Feb. 1976, Folder “Regulatory Reform (1),” Box 51, *Greenspan Files*, GRFL.
Ford reckoned that the necessity for coal, two-thirds of which traveled by rail, trumped lofty ecological desires.\textsuperscript{101} As Ford acknowledged, “every decision must be influenced by our environmental concerns.” Yet his inaction spoke louder than rhetoric or glad-handing. Shortly before succeeding Nixon as president, Ford called for a non-invasive environmental policy: “We have a tendency to be swept away by concern with particular goals and to push them so fast and so far that other equally important goals are unduly sacrificed.” He concluded that environmental and economic goals were “inconsistent.” This belief ran counter to public perception and alienated many social activists. Consumer advocate Ralph Nader called Ford a “willing cheerleader” in the “well-orchestrated publicity campaign… to confuse wasteful cartel regulation with lifesaving consumer regulation.” Nader tended to exaggerate Ford’s do-nothing stance on the environment, but the president did paint weaknesses in commercial and social regulation with broad strokes.\textsuperscript{102}

The Council on Environmental Quality urged the Ford Administration to differentiate between economic and environmental regulation. Russell Train, a former president of the Conservation Foundation, chairman of the CEQ under Nixon, and administrator of the EPA under Ford, encouraged President Ford to address his “essentially negative” environmental record. For the Bicentennial celebrations, Train

asked the administration to embrace “conservative” issues like resource protection and preservation of heritage sites. Instead of appearing to kowtow to big business, the administration could spin the field of environmental standard enforcement as a job creator. At a congressional hearing near the end of Ford’s term, the CEQ characterized the president as single-minded. One CEQ staffer noted, “The ironic difference between Ford and Nixon is that we always dealt with Nixon’s staff, but never spoke with the President. Ford is open and receptive, we have relatively easy access to him. But he doesn’t care about the environment. He doesn’t think of the environment as an issue.”

President Ford’s stance on energy, mining, and coal reflect not only his view of environmental regulations, but also his administration’s support for the mining industry, the railroads’ biggest source of revenue. The Ford Administration amended the Energy Supply and Environmental Coordination Act (ESECA), a bill that Nixon had signed in June 1974. This law balanced “greater use of domestic coal” with “appropriate environmental safeguards.” Although ESECA did not extend pollution standards, it encouraged use of less-polluting low-sulfur coal. The Ford Administration created incentives for rail companies to merge, eliminate duplicate track, and improve coal transport efficiency. Congress twice passed bills to impose environmental restrictions on strip mining. Ford, seeking to avoid job loss and protect domestic coal, vetoed both bills. According to an administration memo, the Surface Mining Regulatory Act of 1975 sought “to strike an appropriate balance between the need to regulate surface mining in a

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manner that provid[e]s adequate protection for the environment and our urgent need to increase domestic coal production” [emphasis added]. The president did not oppose environmental improvement, but he vigorously resisted new costs to the coal and electricity industries. Weak Northeastern railroads benefited as the Ford Administration extended enforcement schedules for pollution control.104

Aside from the Railroad Revitalization and Regulatory Reform Act of 1976, “Project Independence” was the most significant Ford Administration effort to stimulate and revive the railroad industry. President Nixon’s team had first formulated Project Independence after the oil crisis of late 1973, when 18 percent of U.S. energy came from coal and 42 percent derived from oil. Upon taking office, Ford championed the call to reduce U.S. dependence on foreign energy sources. He connected oil importation with inflationary pressures on U.S. producers and consumers. The Energy Independence Act, which the Ford Administration submitted to Congress in January 1975, morphed into the Energy Policy and Conservation Act. The plan sought to double coal production and consumption from 600 million tons in 1974 to 1.2 billion tons in 1985. “Project Independence” involved voluntary electricity conservation, mandatory increases in automobile fuel economy, conversion of oil and gas power plants to coal, and tapping sources of domestic oil offshore and in Alaska. To shift American energy patterns, a

104 On ESECA, see Report, “New Ideas for Domestic Initiatives,” 19 May 1976, Folder “Domestic Council – Domestic Initiatives,” Box 116, Seidman Files; on strip mining, see Mieczkowski, Gerald Ford and the Challenges of the 1970s, 268; and Memo, Jim Cannon to Phil Buchen and others, 9 May 1975, Folder “Cannon, James M. (Executive Director, Domestic Council), 2/75-10/12/75 (2) 5/1-13/75,” Box 173, Seidman Files; Memo, Glenn Schleede to Paul Theis, 28 Jan. 1975 (4), Folder “Energy Independence Act,” Box 6, Duval Files; on standards extensions, see Talking points from meeting with labor-management committee, 21 Apr. 1975, Folder “Briefing Papers, April 1975,” Box 41, Seidman Files, and Report, “Questions and Answers for Presidential Press Conferences” [1973?], Folder “Total Strategy (2),” Box A140, Laird Papers, all GRFL.
stronger rail infrastructure was imperative. Northeastern railroads struggled to double their hauling capacity from 400 million tons to 700-800 million tons per year. Slow orders, inefficient loading facilities, and shaky finances hampered the carriers.105

Keen to stem the energy crunch and reduce oil imports, the Ford Administration incorporated nontraditional fuels—nuclear, solar, geothermal, and synthetic sources—into its broad energy strategy. These resources were among the most abundant, but many technological obstacles prevented their widespread implementation. Coal remained the centerpiece of Project Independence. Some industry experts promoted slurry pipelines as an alternative to traditional rail and barge transport. Pipelines required significant initial investment, but low labor and upkeep costs attracted shippers. DOT analysts and some members of Congress hesitated to support pipelines, as federal agencies had yet to study environmental, social, and economic ramifications. Pipelines consumed and polluted huge volumes of water, which concerned arid Western communities through which many proposed lines would pass. Rail advocates noted that the cost of rehabilitating existing lines might pose fewer economic or environmental burdens than installing new pipelines.106

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105 Mieczkowski, Gerald Ford and the Challenges of the 1970s, 198; MacAvoy and Snow, eds., Railroad Revitalization and Regulatory Reform, 64; Talking points from railroad meeting, 1 Apr. 1975, Folder “Railroads 4/1-8/75,” Box 153, Seidman Files; Report, “Natural Resources and Transportation,” 19 Aug. 1975, Folder “Meeting with the President: 8/19/74, Domestic Council Staff,” Box 4, and Memo, Frank G. Zarb to Rogers C. B. Morton, [undated,] Folder “Energy Policy – Briefing Book for the President,” Box 6, and Report, “Briefing Package Program to Reduce Oil Imports by One Million Barrels Per Day,” [undated,] Folder “President’s Energy Goals,” Box 11, Duval Files, GRFL.

The Ford Administration energy plan highlighted the vital role of railroads. When he submitted his regulatory reform bill to Congress in May 1975, President Ford tied rail revitalization to coal. “Directly or indirectly,” he said, “every American is served by low cost, fuel efficient rail transportation.” By reducing duplicative tracks and upgrading facilities, the rail industry could better feed Americans’ hunger for cheap and plentiful energy. Project Independence sought to preserve and enhance rail lines with access to “recoverable and commercially attractive” coal and fossil fuel deposits. Under the energy plan, such lines would be ineligible for abandonment. Ford’s secretary of transportation, William “Bill” T. Coleman, Jr., also recognized the value of hauling coal from mine to manufacturer via rail. In a statement of national transportation policy, Bill Coleman wrote that freight rails “support national priorities of energy conservation, environmental protection, alleviation of congestion and safety.”

Environmental issues did not attract much attention in the Ford White House, but Bill Coleman remained committed to NEPA. At several public forums in summer 1975, Coleman pledged to uphold federal environmental laws. An audience in Milwaukee applauded when Coleman described NEPA as “a public recognition that in our country we live not only for ourselves but the future generations [as well].” Regulatory reform, Coleman argued, would improve transportation efficiency and environmental quality. The secretary described how the DOT helped communities either subsidize their light-

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107 Talking points from swearing-in ceremony of William T. Coleman, 7 Mar. 1975, Folder “Department of Transportation (DOT) – Coleman, Wm.,” Box 14, and Report, DOT news bulletin, 19 May 1975, Folder “Meeting with the President: 6/7/75, Midwest & Northeast Governors (railroads) (2),” Box 6, Duval Papers, GRFL; Senate, Subcommittee of the COA. DOT and RAA for FY 1976, Section 2, 94th Cong., 1st sess., 1975, 1812-18; Report, “A Statement of National Transportation Policy by the Secretary of Transportation,” 17 Sept. 1975, Folder “Transportation,” Box 40, Cannon Papers, GRFL.
density rails or adjust to line abandonment. Coleman stressed the importance of rural coal to Project Independence. In a policy statement in September 1975, Coleman noted how the DOT sought to “eliminate or minimize any possible adverse consequences” from “interactions of transportation with… the human environment.” Acknowledging the need to account for social goals in the market, Coleman urged government to help business internalize environmental costs. Rail was a small but integral part of DOT plans to minimize transportation’s impact on the American landscape.108

Support for the coal, electricity, and rail industries meshed with the administration’s geopolitical, fiscal, and economic goals. Nevertheless, massive increases in coal consumption undermined recent efforts to curb pollution. Whether high- or low-sulfur, coal generated most of the sulfur dioxide and sulfuric acid that blighted U.S. air, water, rain, and diverse ecosystems. According to the National Forest Service, the coal industry removed about 4.5 million tons of the stuff from national forests in 1973 alone. One million of those tons came from ecologically disastrous strip mines. Russell W. Peterson of the CEQ warned against sacrificing “public land values such as grazing, water, timber, [and] wildlife” simply to reach profitable coal deposits. Recalling the spirit of early-20th-century Progressivism, the CEQ thought planning and technological developments could mitigate the ecological consequences of mining and drilling.

Although land, air, and water protection was one of its five stated policy goals for energy, the Ford Administration left a legacy of insensitivity toward the landscape. Drafts of the president’s 1976 State of the Union acknowledged this problem. One sentence remarked, “Great strides have been made in improving our air and water quality since 1970, but the new emphasis on development of coal resources, nuclear power, and offshore oil and gas recovery pose particularly difficult trade-off problems.” Project Independence pampered coal producers, buoyed railroads, and encouraged energy conservation, but took no steps to preserve natural resources. Such was Ford’s “balance” of environmental and economic objectives.\(^\text{109}\)

**Government Support for U.S. Railroads**

Like the Ford Administration, government agencies advocated rail as a fuel-efficient alternative to other modes. Transportation—mostly cars, buses, and trucks—accounted for 52 percent of U.S. petroleum needs and consumed no coal or natural gas. Electrification of some locomotives meant rail was “the only available mode that is not totally dependent on petroleum,” said a 1975 White House report. “Under-utilized” coal, nuclear, and alternative fuel sources could power an electrified train. The Federal Railroad Administration developed a Project Independence program to study how electrifying trains could save fuel. The FRA’s pollution control research in the mid 1970s

built on fuel and emissions studies from the early 1970s. An electrification project in the Northeast Corridor promised to cut fuel consumption by 25 percent and reduce noise and exhaust emissions. These efforts were part of the FRA’s goal to minimize “adverse environmental characteristics of freight transport.” A member of the Railway Progress Institute testified to a House committee in 1977 that rail promised to divert traffic away from clogged highways, reduce emissions, and stimulate job growth by shortening travel time and transaction costs. Even the Interstate Commerce Commission recognized that railroads were more “ecologically acceptable,” fuel-efficient, and left fewer traces on the land than other modes of transportation. In the Age of Limits, such claims caught the attention of the White House.110

The administration adopted DOT and rail industry language. Although the Ford White House tended to focus on economic themes, the energy and environmental advantages of rail sweetened the deal. John W. Barnum, the tenured assistant transportation secretary, stressed rail’s “low per capita energy consumption” to both Congress and the administration. As Barnum reported at a Senate appropriations hearing in 1974, “A modern train operating at capacity is a very efficient mode of transport, from many points of view—land use and environment as well as energy.” Donald Rumsfeld, the White House Chief of Staff, built on Barnum’s message in a 1975 memo: “If the

nation is to have the benefits, in terms of fuel conservation and environmental compatibility that the railroads can provide, the inequities in national transportation policy must be cured.” Although economics, business, and the state dominated the debate over regulatory reform in 1975-76, environmental considerations remained salient.\textsuperscript{111}

Before a meeting with the Association of American Railroads (AAR) in April 1975, Jim Cannon, a member of the Domestic Council, wrote to the president, “Energy, environment, safety and land use considerations strongly argue for a national policy of increased reliance on rail in the years ahead.” The AAR board described the extent to which American industry and commerce depended on railroads. Despite freight car shortages and dilapidated rights-of-way, rail carried 38 percent of all U.S. freight in 1974 (the most of any mode), 78 percent of lumber and wood, 71 percent of pulp and paper, 70 percent of automobiles, 66 percent of food, and 60 percent of metals. Calculating rail’s importance to American manufacturing, food production, and general commerce, President Ford assured the AAR representatives, “I can pledge my personal involvement” in bolstering the industry. Fuel efficiency, low emissions, and light land use were perks, but the Ford Administration valued rails most for their presence in factory towns, agricultural hamlets, and remote sources of ore, minerals, and timber.\textsuperscript{112}

\textsuperscript{111} Senate, Subcommittee of the COA, \textit{DOT and RAA for FY 1975, Section 2}, 93\textsuperscript{rd} Cong., 2\textsuperscript{nd} sess., 1974, 1048; Memo, Donald Rumsfeld to Jim Cannon, Rod Hills, and Jim Lynn, 25 Jul. 1975, Folder “Railroads – General,” Box 22, \textit{Schmults Files}, GRFL.

\textsuperscript{112} Memo, Jim Cannon to the President, 12 Apr. 1975, Folder “TN 4 4/5/75---4/30/75,” Box 4, \textit{White House Central Files} [hereafter \textit{WHCF}]; Talking points for meeting with Association of American Railroads Board of Directors, 12 Apr. 1975, Folder “Meeting with the President: 4/14/75, American Railroad Association,” Box 6, \textit{Duval Papers}, GRFL.
Line Abandonment: The Ecology of Transportation

During the mid 1970s, American railroads sought to shed unprofitable lines, cut fuel costs, and demonstrate economic and environmental reasons to choose their mode over others. These efforts reduced the impact of railroading, and to a lesser degree transportation overall, on rural and urban landscapes. The Ford Administration and Congress ensured that railroads did not abandon essential lines in coal and ore regions. Some spatial shifts were inevitable, especially away from less attractive high-sulfur coal. Abandonment of uneconomic light-density lines (LDL) required government agencies to issue environmental impact statements. EISs considered lines’ economic viability but focused on whether trucks would consume more fuel or emit more particulates and noise than discontinued locomotives.¹¹³

In many cases, trains passed along LDLs infrequently and carried small loads. A 2,000-horsepower locomotive carrying very little freight generated more pollution and was less fuel-efficient than a fully loaded 200-horsepower truck. In such cases, the switch to trucking proved sensible for business, communities, and local ecosystems. Interested parties could scuttle line abandonment if they demonstrated that trucks would generate more pollution than did existing rail service. Since many trains hauled large loads and traveled over long distances, railroads averaged 173.5 ton-miles per gallon of diesel in 1970, while trucks averaged only 50 ton-miles per gallon. In 1972, the rail industry emitted one sixth of the carbon monoxide, three quarters of the hydrocarbons, and less than one third of the nitrogen oxides as the trucking industry. Furthermore, highways used 13.5 times as much land as railroad rights-of-way. Of all U.S. transportation energy

¹¹³ Thomas J. Humphrey, Framework for Predicting External Impacts, 48-51.
needs in 1972, freight rail accounted for 2.93 percent of fuel consumption, while trucks, which hauled fewer tons, accounted for 14.54 percent—almost five times as much fuel as rail. After the 1970s, rail’s efficiency and productivity soared, while its relative imprint on the energy sector and the American landscape shrank.114

Both railroad accounting and marketing paid close attention to fuel consumption levels. In 1975, a ten-cent rise in the price of a gallon of diesel would have cost the rail industry over $450 million. Since few trains ran on electricity, rails’ demand for diesel was relatively inelastic. For each ten percent increase in prices, demand fell only one percent. The heavy regulation of the railroads further impinged their ability to seek creative ways to cut costs. Railroads urged the government to curb inflation and prevent fuel price fluctuations. Federal funding and regulatory reforms of the 1970s enabled the railroads to maintain their rights-of-way properly, end slow orders, and save fuel. The railroads increased the productivity of their networks by buying better locomotives, streamlining yard operations, removing excess tracks, and hauling freight longer distances over fewer routes. The FRA developed automatic car identification systems to help the railroads improve yard design and efficiency. Between 1955 and 1988, the rail industry increased its fleet’s fuel efficiency by over 50 percent.115

Railroads sought to maximize their physical and capital resources and increase competitiveness by abandoning light-density and duplicate lines and consolidating yard and switching facilities. National rail planning agencies like the FRA agreed that these rehabilitation measures would alleviate many of the industry’s ills. In 1975, Federal Railroad Administrator Ace Hall concluded that, “we ought to bite the bullet and find another way to move [such] traffic” from uneconomic light-density rail lines to trucks. The DOT found that each mile of LDL cost railroads about $4,000 annually. The railroads could not sustain a system in which more than 20 percent of tracks generated no revenue. They required both spatial and economic reform.¹¹⁶

The DOT secretary’s office, FRA, ICC, and U.S. Railway Association (USRA) all studied light-density lines. In 1974, the FRA estimated that 25 percent of tracks in the “Northeast region” (see note) and ten percent of tracks elsewhere were “potentially excess.” The following year, the USRA analyzed almost 12,000 route miles. Outside of the Northeast, about 17 percent of tracks carried only one to three percent of traffic and were in excess. In 1977, the DOT found that by abandoning 25,500 miles of line, U.S. railroads would divert 4-5.5 billion ton-miles of traffic to trucks. This shift would add 150-300 million truck miles and consume 20-40 million more gallons of diesel per year. Millions are not small figures, but the increases represented less than one percent of the 40 billion miles that trucks traveled and a tiny fraction of the 109 billion gallons that trucks burned annually. LDL abandonment would barely raise CO and NOₓ emissions.

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By diverting traffic from rail to trucking, air quality and fuel consumption actually improved in some places. A White House report concluded that LDL abandonment posed “little danger to the ecosystem” and could even stabilize local transportation markets.\(^\text{117}\)

Nevertheless, many businesses, municipalities, and governors expressed concern that line abandonment would harm communities more than it helped railroads. They feared loss of tax revenue, business closures, unemployment, and pollution, congestion, and safety problems from trucks. Some local and state leaders, including governors William G. Milliken of Michigan and Milton Shapp of Pennsylvania, complained that rail executives and the Nixon Administration looked only at the bottom line. Historian Richard Saunders portrays President Nixon as callous and uncaring toward constituents in the Northeast, which was not “Nixon country.” White House aide Mike Duval characterized Nixon’s second transportation secretary, Claude S. Brinegar, as “[evincing] little or no concern for human and community needs” and studying abandonments purely “in cold, economic terms.”\(^\text{118}\)


Unlike his predecessor, Gerald Ford empathized with shippers, communities, and railroads alike. By the time Ford became president in 1974, most analysts agreed that rail abandonments would barely affect communities and local environments. “Safeguards” and “beneficial effects” promised to negate almost all harm. Railroad experts analyzed land use, emission and fuel rates, and the degree to which businesses and communities relied on different modes. The USRA studied the potential impacts of rail abandonments in 279 counties in the Northeast. The administration predicted that line discontinuance would threaten more than two percent of local industrial jobs in only seven counties; only 15 counties would suffer job losses between one and two percent. Most analysts agreed with the USRA that negative economic and environmental impacts of abandonment on businesses and communities would prove negligible in nearly all situations.119

Rail line abandonment reshaped rural communities and business. Across much of the Midwest and West, rail tracks and yards predated the towns through which they passed. Towns like Elko and Wheeling asked the FRA to assist in relocating rights-of-way and grade crossings from central business and residential areas. Dependent on the revenue of their timber and mineral customers, rail companies left busy logging and mining towns unscathed. LDL abandonment affected agriculture communities more acutely, as most LDLs ran through rural areas. Far too many railroads crisscrossed states like Iowa and Kansas, which each had over 7,500 miles of tracks. By comparison, New

York had only 5,200 miles, while sprawling California had about 7,000. Many of the branch lines in the Midwest ran only five miles apart. State and local economies depended less and less on these excess tracks, which imposed large maintenance costs and earned relatively little for the rail carriers.¹²⁰

In 1978, Senator Jackson convened a congressional economic hearing to discuss, among other topics, rail abandonment. Farmers, manufacturers, and academics expressed divergent points of view. Ben H. Radcliffe, the president of the South Dakota Farmers Union, vented his group’s frustrations. Farmers across the Midwest saw railroad companies abandon feeder lines, the veins of agriculture that ship grain and livestock to the marketplace. Radcliffe worried that states like his could not find the funds to subsidize branch lines. Like the railroads themselves, many South Dakota farmers operated on tight budgets and paid high fixed costs. In the short run, they could not afford to truck their product farther than they were accustomed.

Robert G. Harris, an economist at the University of California, Berkeley, responded to the farmers. He cited a report that 35,000 of the roughly 200,000 miles of rail lines in the United States earned only two percent of rail revenues. Such lines did not meet the “34 carload” rule, which found that a line must carry 34 full carloads per year to turn a profit. Comparing Mr. Radcliffe’s concerns to the plight of unprofitable railroads, Professor Harris posed a hypothetical situation: “I wonder, if a farmer had a 2,000-acre farm and 350 acres of it generated 2 percent of his total crop, would he bother to plow up

those 350 acres every year and seed them and harvest them.” Harris reminded the
audience that of 100,000 miles of branch lines, 65,000 remained both viable to the
railroads and vital to the economy. The professor suggested that “[Rural people] look at a
railroad as though somehow it is so important, so intrinsic to this country that we simply
can’t do without it, and they are not facing modern economic reality.” Harris was direct
and somewhat insensitive, but he empathized with both farmers and railroads. In many
cases, line abandonment served the long-term financial interests of both groups, even if
short-term costs and inconveniences seemed more pressing.

As the railroads downsized their physical plant in the Midwest, federal subsidies
kept some light-density lines open. In the 1980s and 1990s, farmers and communities
adopted alternatives. Many grain elevators and fertilizer plants switched from rail
networks to motor carriers and intermodal facilities. As historian John Stilgoe shows in
*Train Time*, most farmers began trucking their grain to large elevators and enjoyed lower
fees. The abandonment of rails and the trucking boom in rural America proved
significant. The burden of service shifted from private rail carriers to state and county
highway departments, which struggled to maintain their truck-beaten roads. As Stilgoe
suggests, this “spatial discrimination” benefited shippers, who passed transportation costs
to state and local governments and other taxpayers.

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121 U.S. Congress, Subcommittee on Economic Growth and Stabilization of the Joint Economic
Committee, 95th Cong., 2nd sess., 1978, 483-89. On 34-carload rule, see DOT, *Railroad Abandonments and
Alternatives*, 14, and House, Subcommittee on DOT and RAA of the COA, *DOT and RAA for 1973,
Section 2*, 92nd Cong., 2nd sess., 1972, 1204.

122 Memo, Gene R. Tyndall to Donald T. Bliss, Jr., 18 Nov. 1975, Folder “Department of
Transportation – State of the Union (2),” Box 2, *Stephen G. McConahay Files* [hereafter *McConahay
Files*], GRFL; DOT, *Railroad Abandonments and Alternatives*, 38, 40-44, 52; Stilgoe, *Train Time*, 181-85.
The Urban Railroad

Rail line abandonment affected not just agricultural and mining communities, but metropolitan areas as well. Like small towns, big cities and their suburbs had expanded around rail infrastructure. The risks of automobile-train collisions and air and noise pollution grew with the population. In 1970, acting Federal Railroad Administrator Carl V. Lyon sought to make rail “compatible with the larger needs of our society.” Lyon recognized a “real need to evaluate the impact of the variety and amounts of railroad facilities, such as stations, shops, yards, and rights-of-way on the urban environment.” Excessive rail sites contributed to blight, hindered land development, and congested traffic. To enhance their land-use patterns and improve passenger and freight service, cities sought to streamline rail tracks and facilities.123

Despite serving far fewer urban shippers and passengers than they had before World War II, the railroads still maintained large interchange and classification yards in U.S. cities. These facilities, many of which no longer served an economic or logistical purpose, did not belong downtown. The process of switching cars and consolidating trains emitted noise and pollutants and required much time, space, and labor. As in rural areas, urban communities sought assistance to relocate rail lines and yards. The FRA conducted a series of demonstration projects in cities across the country. These infrastructure studies included environmental impact statements. Richard Saunders describes “the once mighty Maybrook Yard,” a typical Northeastern facility between New York and Albany. Once abandoned, the yard “remained in place for years afterward,

covered in grass and silent. A faded sign reading ‘no parking by order of NYNH&H RR’ flapped to an empty parking lot.” As the railroads adjusted to their smaller role in the U.S. economy, many places like the Maybrook Yard slipped into disrepair or out of memory. Unless reclaimed for another use, the natural landscape soon absorbed such traces of human activity.¹²⁴

Terminal facilities and rail lines defined the grim environment of East St. Louis, Illinois. Residents and businesses endured 96 street-level railroad crossings, many of which were unfit for either road or rail traffic. About 90 miles of track checkered the city, including its depressed downtown. Of the 2.4 million railcars that passed through the greater St. Louis area annually in the 1970s, 75 percent traveled to the East St. Louis facilities. The Terminal Railroad Association (TRA) owned a deed to 400 prime acres of Mississippi River waterfront. The facility employed many local workers and was the city’s largest source of revenue. According to urban planning experts in 1973, the TRA “switches trains, compiles shipments, transports railroad cars across the river… [and] maintains large railroad yards.” TRA facilities lacked equipment to handle long unit trains of bulk goods. “Several freight depots have burned to the ground and not been rebuilt,” reported planners. 30 percent of the acreage went unused, weed-ridden rights-of-way dominated another 30 percent, and pavement covered the remainder. As valuation of the yards plummeted, the waterfront wasteland hurt the regional economy, health, and

image. Civic leaders across the river in St. Louis, Missouri, begged their neighbors to remove the eyesore.125

As railroads filed for bankruptcy in 1970, the situation in East St. Louis caught the attention of the FRA. Administrator John W. Ingram described the city as “the biggest mess of railroad tracks running all over the place that I have ever seen.” In 1970, the FRA began studying East St. Louis to determine how best to relocate rail lines and facilities. The project suggested ways the community could redevelop land into parks, recreation areas, and new residential and industrial buildings. The East St. Louis study served as a model for other relocation programs that sought to reconcile shipper, carrier, and community interests. Like many cities, East St. Louis could not “eliminate the problems of blight, decay, and a declining tax base unless there [were] some changes made in railroad location and operations.”126

In January 1972, midway through the FRA demonstration project in East St. Louis, a tank of vaporized liquid petroleum gas exploded. The accident injured 230 rail employees and nearby residents and cost $7.5 million in property damages. During a routine car switching, a poorly maintained braking system failed and allowed a car, traveling at just 16 miles per hour, to puncture the gas tank. The explosion damaged homes, businesses, and a school in adjacent blocks. A photograph in the accident report shows a dejected African-American man slumped in a chair in the remnants of a

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125 East-West Gateway Coordinating Council, An Inventory of Streets in the East St. Louis Model City Area and Present Plans for their Improvement (East St. Louis City Demonstration Agency, December 1970), C-11; Judd and Mendelson, The Politics of Urban Planning, 73-78.

As Lewis Mumford and Jane Jacobs noted, urban freight rail centers across the country generated festering and unsafe conditions. Over the course of several decades, East St. Louis rid its inner city of most rail lines and shifted the largest rail yards away from its waterfront, which now sports well-manicured parks and an impressive fountain. Poverty and pollution continue to mar East St. Louis, but the relocation of its rails has improved the city’s health, image, and landscape.\footnote{Ibid., 2-9.} The story of East St. Louis—economic struggles, physical decay and renewal, and federal studies—exemplifies the complex interaction among railroading, government, and environment. Without the combination of economic regulatory reform and new environmental laws in the 1970s, the landscapes of places like East St. Louis would have looked quite different.
CHAPTER 4: REASSESSING ECONOMIC REGULATIONS AND FEDERAL AGENCIES, 1970-80

The national economy, political discourse, social goals, and business climate shifted during the 1970s. Gritty, bulky, heavy manufacturing promised to create less wealth and sustain fewer and fewer jobs. Greater environmental awareness and vocal calls for pollution control gradually caught the attention of politicians, bureaucrats, and corporations. Many Americans saw the preservation and management of limited natural resources as a way to protect self-interest, ensure future productivity, and maintain the country’s inherent beauty and value. Relative to the rest of the world, abundance remained an American virtue. But with the end of the postwar boom came downsizing, doubt, and limits.

When the nation reached its plateau in the early 1970s, U.S. railroads were already hurtling down the other side. Rail corporations had been accustomed to downsizing for decades; doubt and uncertainty pervaded the industry. The railroads attempted to unload unprofitable customers and shrink their physical plant, reflecting their limited financial and capital resources. Recession and scarcity posed challenges to new social regulations on environment, health, and consumers. These trends touched railroad operations directly and indirectly.

As the federal government aided the Northeastern and Midwestern railroads during the 1970s, broad factors weighed heavily on policymakers. Social goals and economic necessities did not balance as easily as Americans hoped. The greatest change to American railroading since World War II—deregulation—reflected the needs of a
modern society. Regulatory reform shaped not only transportation bureaucrats and the rail industry itself, but also the passengers and shippers that railroads served and the urban and rural landscapes through which railroads ran.

The Principles of Economic Regulation

The federal government designed environmental laws and agencies to protect public health and safety, promote sensible planning, preserve natural resources for future use, and, as historian Thomas K. McCraw suggests, “legitimize the capitalist order.”129 Whereas environmental measures addressed the market failings of their time, economic regulation of the railroads answered the concerns of a bygone era. By the mid 20th century, truck, barge, and inter-railroad competition protected shippers against rail monopolies and cartels. Federal regulations went several steps further; the Interstate Commerce Commission approved thousands of different rates for hauling goods and people, oversaw which railroads operated over which lines, and attempted to balance the needs of shippers and carriers. Yet the railroads struggled to survive in this system, let alone turn a modest profit.

In Prophets of Regulation, McCraw finds that not all regulation failed. In the case of postwar railroading, though, regulation failed absolutely. Railroads owned too many lines, employed too many workers, and faced too many restrictions. Regulation did not address the railroads’ massive fixed costs or the scale on which they operated. A White House memo in 1975 argued succinctly, “The saga of the Penn Central bankruptcy is an excellent example of what happens when government neglect and over-regulation forces

129 McCraw, Prophets of Regulation, 301.
a major industry into the red.” Adding insult to injury, federal and state governments funneled nearly all of their transportation funds into the burgeoning highway system. Roads subsidized automobiles, buses, and trucks, helping the American economy modernize and adjust to new needs. Highway builders had little sympathy for rail competitors. Robert Moses said, “Bailing out busted, lazy and backward private enterprises is [not] the business of government.” Where environmental regulation factored the societal costs of making a product, economic regulation ignored the heavy fixed costs of railroading and the difficulty of competing with other modes.\(^{130}\)

As highwaymen like Robert Moses hastened the railroads’ demise, the postwar economic boom perpetuated outdated thinking toward regulation. The bromides of Robert E. Cushman, a 1930s regulation theorist, endured despite evidence to the contrary. Reflecting the deflationary pressures of the Great Depression, Cushman wrote of the ICC in 1937, “Small wonder that Congress has looked upon its handiwork with satisfaction and has been strongly impelled to follow the same techniques for the handling of new regulatory functions as they have emerged.” Like other Depression-era theorists leery of falling prices, Cushman trusted in government to stabilize consumer prices and prevent railroads from undercutting one another. Untalented commissioners perpetuated this prewar anti-reform legacy for decades, even as railroad-railroad competition fizzled, prices rose, and the value of rates fell after the war. The railroads had little recourse but to petition for higher rates. Not until steep inflation and industrial decline rocked the

\(^{130}\) Report, “A Statement of National Transportation Policy by the Secretary of Transportation,” 17 Sept. 1975 (13); McCraw, Prophets of Regulation, 305, 308; Memo, Jim Cannon to the Vice President, 1 Apr. 1975, Folder “Vice President Rockefeller – Meetings,” Box 25, Duval Files; Report, “The Challenge of Regulatory Reform,” Jan. 1977; Memo, Ken Cole to the President, [undated,] Folder “Total Strategy (3),” Box A140, Laird Papers, GRFL; Caro, The Power Broker, 934.
American economy in the 1970s would Congress enact major airline, trucking, busing, and railroad reforms.¹³¹

Beginning in the 1950s, men and women in government and academia began to question the efficacy of transportation regulation. Groups like the Brookings Institution and the Ford Foundation funded research on regulatory reform. Their work gradually entered executive and legislative policy. In 1960, Harvard economist James M. Landis delivered a report to president-elect Kennedy in which he advocated streamlining the ICC to solve “long-neglected problems” in transportation regulation. Kennedy recognized that competition would improve the efficiency of the railroad industry as a whole, even if some corporations failed and some service ended.

By the late 1960s, regulatory theory had turned against “value-of-service” pricing in favor of cost-based pricing. The Chicago School of economics, which advocated private, market-based solutions to business problems, established roots in some academic and policymaking circles. Members of the Chicago School posed hypothetical questions like, ‘If economic efficiency isn’t the regulators’ primary goal, what is?’ Railroad regulation wreaked efficiency, serving neither public nor private good. Analysts argued that the ICC set rail freight rates unnaturally high, unnaturally low, or in a manner that perpetuated excess capacity of railcars and lines. The ICC effectively mandated inefficiency, forced railroads to provide unproductive and unprofitable service, and imposed higher prices on consumers. These fundamental weaknesses impinged on the railroads’ ability to weather the economic turbulence of the 1970s. Calls for reform in the

“Age of Limits” reflected America’s loss of confidence in government solutions. Merton J. Peck, an influential theorist in the 1960s, even wrote, “Changes in economic knowledge are less important in precipitating regulatory reform than events outside of economics.” The historical context of the 1960s and 1970s shaped both environmental and economic regulatory reform movements.\(^{132}\)

One of the most important voices of regulatory reform was Alfred E. Kahn, a professor at Cornell University and a lifelong Democrat. Although not a member of the Chicago School, he adhered to similar principles in his 1970 book *The Economics of Regulation*. Kahn asserted that “regulation and competition are often at odds; that government officials often misunderstand the economic consequences of their decisions; and that market incentives are usually preferable to command and control regulations.” Kahn served the state of New York as a public regulatory commissioner in the early-to-mid 1970s. President Carter later tapped Kahn to lead both the Civil Aeronautics Board (CAB) and the Council on Wage and Price Stability (CWPS).

Kahn focused primarily on the principles of marginal cost and efficiency. To overhaul New York’s utilities, Kahn established the policy of charging customers only for the electricity they consumed without charging them for other customers’ usage. Such “cross-subsidization” had been the norm. Regulations had also forced railroads to “cross-subsidize” unprofitable shipments by overcharging stronger or captured customers. This practice did not reflect true costs or allocate resources efficiently. Environmentalists

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applauded Kahn’s efforts to reduce energy consumption. As the railroads adjusted to smaller networks, they allocated their fuel, labor, and physical plant more effectively and efficiently. As Kahn argued, “marginal-cost pricing in regulated industries should also include the social cost of minimizing such ‘externalities’ as air and water pollution.” As CAB commissioner, Kahn invited an array of environmentalists, utility owners and customers, and business owners to participate in well-publicized congressional hearings. The economist expressed frustration on behalf of the railroads: “Telling carriers they must compete and cannot look to the government for protection is totally inconsistent with telling them also that they must provide unremunerative services at their own expense.” Kahn’s arrival on the national stage built momentum for the cost- and efficiency-based reforms of transportation in the mid-to-late 1970s.133

Alfred Kahn and other proponents of regulatory reform found that government agencies—and regulated industries like the railroads—tended to “emphasize procedural due process rather than economic efficiency.” As CAB commissioner, Kahn proved that regulation could be efficient, punctual, and proactive. The ICC, however, spent exorbitant lengths of time hearing petitions and weighing its options. In perhaps the ICC’s most infamous adherence to “due process,” the commission wasted 12 years contemplating whether to allow another railroad to merge with the Rock Island. While it waited for a response from the ICC, the Rock Island slipped into bankruptcy and dissolved. Regulatory commissions like the ICC reacted to petitions and complaints rather than actively improving the system. Historian Ari Hoogenboom concludes that the ICC

preferred to act in a “passive judicial” function rather than as an “active administrator.” Derthick and Quirk agreed that commissions react instead of act. However, they suggested that since commissions derive their authority from Congress, regulators administer and legislate but cannot execute laws.134

Government regulation should serve the public, but the people’s interest is hard to pin down. Detractors argue that economic regulation protects either producers from unfair costs or consumers from cartels and high prices, but that it cannot protect both. Railroad regulation had benefited shippers in the late 19th century, but no longer protected shippers, carriers, or consumers by the 1970s. Critics from the “public interest” or “public choice” school assume that a regulator does not seek to maximize the public benefit, but rather is “paying off those to whom he is most politically beholden,” as Theodore E. Keeler notes. Regulation often keeps the peace among different interest groups like business, labor, consumers, and environmentalists, but it cannot please everyone simultaneously.135

As Gerald Ford honed his domestic agenda, he targeted both “old” economic and “new” social regulations for serving special interests rather than the public. The president did little to distinguish between the two types or acknowledge the merits of government oversight. At a congressional hearing in 1975, Senator Frank E. Moss of Utah objected to Ford’s willingness to blame “regulation” for specific failures or inadequacies. The senator argued that some regulations protected the free market as well as consumers and

134 McCraw, Prophets of Regulation, 244, 248, 282; Hoogenboom, “Interstate Commerce Act,” 231.
135 McCraw, Prophets of Regulation, 302, 305; Keeler, Railroads, Freight, and Public Policy, 63-67; Derthick and Quirk, Politics of Deregulation, 32.
the environment. Moss said that like regulation itself, reform must serve the public, not just individual industries or businesses.\(^{136}\) Even though transportation reforms in the 1970s targeted specific sectors, they strengthened the economy as a whole.

In industries with huge fixed costs and an expansive physical plant, big companies should have the resources to profit more than smaller competitors. American economic history testifies to the inherent advantage of size. Railroads sought to profit from these “economies of scale” by merging into larger companies. However, federal rules restricted large railroads’ ability to maximize their resources. Inflexible rate structures, lengthy ICC decision times, and restrictions against trimming service or cutting routes produced instead “diseconomies of scale.” Companies like Penn Central, the Baltimore & Ohio, and the Erie Lackawanna did not benefit from their size; excess capacity overburdened their operations. In the West in the 1960s and 1970s and elsewhere after deregulation, some rail companies succeeded by maximizing their “economics of density.” To achieve higher density and efficiency, railroads needed to move as much freight on as few lines as possible.

Companies with too many unproductive lines like the PC could not achieve density during the era of regulation. The railroad industry as a whole suffered from low line densities. A third of the nation’s rail network, or 60,000 miles of track, produced only one percent of traffic. Revenue from the remaining 67 percent had to subsidize the unprofitable lines. The Penn Central sought to halve its 22,000-mile network, retaining

only the 11,000 miles that earned 80 percent of its revenue, but the ICC disallowed such a drastic cut. Although the PC request represented a huge volume of rail, the loss of which could have threatened many shippers and consumers, the ICC ignored more modest requests, too.\textsuperscript{137}

In the 1960s and 1970s, critics charged that the railroad industry dictated the terms of its own regulation. The “capture theory” found evidence to suggest that rail firms entrenched their interests in the ICC at the expense of shippers and consumers. In \textit{Prophets of Regulation}, Thomas McCraw asks whether appointed bureaucrats succumbed to nepotism, corporate lobbying, and political chicanery. McCraw concludes that industry was the dog that wagged the regulatory tail. Regulators like Alfred Kahn succeeded in reforming their agencies by severing bureaucrats from the industries they oversaw. Derthick and Quirk identify a number of common explanations for the capture theory. Firms held a monopoly on information and could determine how to share statistics with their regulators. With time, Congress developed an “atrophy of support and scrutiny” and failed to investigate whether independent agencies served the public interest. Railroad executives often established “economic… and social-psychological incentives” with their regulators, suggest Derthick and Quirk. To increase the likelihood that the ICC would approve rate changes and line abandonments, rail men formed close personal

relationships with their regulators. Some rail lobbyists may have even promised to guide ICC commissioners through the revolving door to cushy industry jobs.¹³⁸

That the railroads ingratiated themselves with regulators should surprise no one. The rather self-evident concept of “industry capture” suggests two themes. First, the ICC’s dubious economic role in the late 20th century had become too broad and antiquated and required congressional attention. Capture theory reflects the railroads’ complacency with their regulatory regime. As several historians suggest, the railroads and worker unions “had never really contemplated a world without some degree of regulation.” Second, if the railroads had indeed become one with regulators, they managed their regulation and their companies wretchedly. Many rates remained unprofitable, abandonment practices remained onerous, and excess workers remained on rail payrolls. Yet these unsustainable efficiencies—and corporate bankruptcy—somehow proved more alluring to the risk-averse railroads than reform of the system.¹³⁹

While the railroads struggled to articulate a response to reform proposals, the ICC sought self-preservation. At an appropriations hearing in 1972, ICC chairman George Stafford acknowledged that Congress could trim his agency so long as it retained the authority to regulate “public interest.” Since it classified its entire regulatory function as serving the public interest, the ICC expected to continue unscathed. The ICC fervently denied accusations that it catered to the railroad industry, insisting that its regulations

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protected shippers instead. Stafford pointed to his agency’s record for citing and fining delinquent railroads. The ICC argued that its rates benefited rail customers and the consumers who bought their products. Dissidents within the independent agencies reported to Derthick and Quirk that they served at the whim of the businesses they regulated. At the CAB, one staffer felt he was inventing legal reasons to support predetermined outcomes of regulation. If the railroads indeed controlled the ICC in the 1960s and 1970s, capture did not reverse their financial misfortune.

Sounding the Call for Change

By the early 1970s, Congress and presidents could no longer afford to remain ambivalent about regulatory reform. President Richard Nixon changed the agency appointment process to bypass congressional approval, but he did not nominate reformers. He elevated George Stafford, a Lyndon Johnson appointee, to chair the ICC. A weak leader, Stafford favored the status quo and obstructed transportation reform in the mid 1970s. Nixon acknowledged the need for reform in musty places like the ICC, but was unwilling to challenge vested industry and agency interests. His successor, Gerald Ford, broke the pattern of appointing committed regulators to the moribund agency. Although the Senate blocked many of his nominations, Ford triggered the internal shift

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that would revitalize the ICC. Ford’s determination to trim government regulation was second only to his crusade against stagflation.\textsuperscript{141}

Reflecting the “Age of Limits” of the 1970s, the consumer advocacy movement contributed to the national debate on regulation. Derthick and Quirk show that consumer activists preferred giving “the attentive public” a “populist critique of government regulation” rather than lobbying Congress or the president directly. Ralph Nader’s highly public campaign for automotive safety endures as a signature moment for consumer advocacy. Consumer interests, which Nixon had dismissed as “flamboyant” and “sexy,” overlapped with calls for reforms of regulation. At a transportation industry conference in autumn 1974, a director of the Urban Environmental Conference suggested that regulatory modernization could save consumers over $10 billion per year. During the conference, the Sierra Club and other environmental and consumer advocacy organizations distributed a pamphlet titled “Inflation: ICC Style.” The report criticized the ICC’s wasteful regulations, rate discrimination against recyclables, and suppression of energy-efficient railroads. ICC chairman George Stafford dismissed the accusations as “fanciful and fallacious.” Giving credence to the environmentalists’ report, Senator Moss said in a 1975 hearing that transportation regulations “cost consumers between $16 and $24.2 billion annually in waste and overcharges.”\textsuperscript{142}


Regardless of the amount, reform would improve efficiency and lower inflation, insisted advocates. James T. Lynn, a dominant member of both the Nixon and Ford administrations, suggested in 1975 that railroad reform “could save consumers billions of dollars annually while conserving substantial amounts of scarce energy resources.” This language entered President Ford’s May 1975 message to Congress on his railroad regulatory reform package. Competitive pricing, easier market entry, and an end to government-sanctioned cartel behavior would help both the railroads and average Americans adjust to the new economy. Ford also linked federal regulation with his great nemesis, inflation. Borrowing from the EIS, Ford urged government agencies to publish “inflation impact statements” to measure whether regulation raised costs and lowered productivity. Ford presented regulation reform as a moderate issue that could attract support across the political spectrum. In speeches and State of the Union addresses, the president outlined how reforms of the railroad, trucking, and airline industries would both improve transportation and lower prices for consumer goods and services.\(^{143}\)

Although Ford was no captivating public speaker, the president brought the otherwise dry, uninspiring subject of regulation to the attention of the masses. He did his best to connect government reform with helping both consumers and industry. By the time Jimmy Carter beat Ford in the 1976 election, “deregulation” had become a fashionable campaign and media buzzword. President Carter was as enthusiastic as Ford

\(^{143}\) Memo, James T. Lynn to the President, 18 Mar. 1975, Folder “Railroad Revitalization (1),” Box 7, McConahey Files; Report, “Draft Presidential Message on the Railroad Revitalization Act” (1), Folder “President and Secretary Coleman, 5/19/75 (Railroad Revitalization),” Box 45, Cannon Files, GRFL; Derthick and Quirk, *Politics of Deregulation*, 30-31, 35, 39; Memo, Edward C. Schmults and Paul MacAvoy to department and agency officials, 25 Feb. 1976, GRFL.
in promoting competition and reducing bureaucratic waste, but was more discerning in which regulations required immediate attention. While Ford sought to wield deregulation as a tool against inflation and all government intrusion in private business, Carter had no interest in stripping new social regulations that he felt benefited consumers and the environment. In addition to tackling railroad reform, which Ford had begun in earnest in 1975-76, Jimmy Carter also signed major airline and trucking reforms. As Ford historian Yanek Mieczkowski notes, “Many of [Ford’s] plans were implemented after he left office, many by Democratic administrations, which showed a bipartisan support for his ideas.” Similarly, Carter historian Carl Biven suggests that transportation and economic deregulation was, “to an unusual degree, a bipartisan affair.” This bipartisanship passed transportation reforms but dissolved over social issues. To explain why Carter and his successors passed economic but not environmental reform, Derthick and Quirk suggest, “the activism of presidents was being channeled into rationalizing government rather than expanding it.” For Carter, rational agencies were not necessarily smaller, but instead more efficacious.144

Presidents Ford and Carter led the charge for deregulation, which Congress adopted belatedly. As the 1970s drew to a close, old-fashioned commissioners and pro-regulation lobbyists had lost their patrons in the legislature. Many Republicans in the mold of Gerald Ford supported deregulation to bolster free enterprise. Carter, a moderate Democrat, showed that reform-minded regulatory commissioners like Alfred Kahn could enact sensible changes to government agencies. Edward M. Kennedy, the liberal senator

144 Derthick and Quirk, Politics of Deregulation, 51-54, 65, 211; Mieczkowski, Gerald Ford and the Challenges of the 1970s, 187; Biven, Jimmy Carter’s Economy, 219.
from Massachusetts, held hearings to publicize ways in which deregulation benefited consumers. Trucking historian Shane Hamilton shows how Kennedy adopted reform issues that appealed to libertarians, liberals, workers, and the middle class all at the same time. Hamilton writes, “Both Kennedy and Carter represented the Democrats’ new focus on rights-based social liberalism combined with growth-oriented economic policies that primarily benefited business interests and relatively affluent consumers.”

Conservatives and liberals alike emphasized how railroad reform would lower prices, save energy, and boost the economy. “Almost regardless of differences in party, ideology, or interest group affiliations,” write Derthick and Quirk, most congressional committee leaders and members supported reform. If deregulation held the key to curbing inflation and government excess—and appealed to constituents—the rank-and-file were on board. By 1980, the year Carter signed the Staggers Rail Act into law, “the de jure economic deregulation of industry was close to complete.” This “profound and quiet revolution,” as Biven describes regulatory reform, introduced the wheezy and ailing railroad industry to the modern era. It had come a long way, especially given the ICC’s staunch defense of the status quo.

The Challenge of Reforming the ICC

Congress established the Interstate Commerce Commission in the 1880s, when railroads often possessed natural monopolies for short and long routes. By the 1930s, that monopoly was gone, never to return. Yet the ICC and its regulatory structure remained

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intact. As a Department of Transportation official remarked in 1971, “the town bully, the railroad, has lost his punch and we are in serious need of updating the regulatory process.” The 19th-century ICC was inappropriate for the economy of the 1970s. Rail Form A, a fundamental ICC procedural costing mechanism for rail companies, had hardly changed since the turn of the century. The ICC required rail passenger trains to provide sleeping, dining, and lounge cars even though demand for these costly services no longer existed. Station staffs, baggage and food services, and a variety of railcar policies proved outdated and unnecessary. The ICC acknowledged the need for reform but did not act.\textsuperscript{147}

Impoverished rail companies literally could not comply with some services. Repair shops, which the railroads had designed for steam locomotives in the 1870s, did not accommodate modern equipment. As one railroad reported to DOT Secretary Brinegar, “Most facilities have no shelter from the elements, resulting in poor maintenance, poor morale and problems in finding men to work under these unacceptable conditions.” In 1973, a Nixon Administration report concluded that the United States had “essentially the same railroad network which was in place in 1920, one which was geared to the environment and economy of the late 19th and early 20th century.” The regulatory regime and the railroads themselves were antiquated and “disintegrating.” To revitalize the railroads, the tracks on which they ran, the shippers and communities they served, and

\textsuperscript{147} McCraw, \textit{Prophets of Regulation}, 306; House, Subcommittee on DOT and RAA of the COA, \textit{DOT and RAA for 1972, Section 3}, 92\textsuperscript{nd} Cong., 1\textsuperscript{st} sess., 1971, 779; Senate, Subcommittee of the COA, \textit{DOT and RAA for FY 1975}, 93\textsuperscript{rd} Cong., 2\textsuperscript{nd} sess., 1974, 464; Senate, Subcommittee of the COA, \textit{DOT and RAA for FY 1977, Section 3}, 94\textsuperscript{th} Cong., 2\textsuperscript{nd} sess., 1976, 539-44.
the landscapes they shaped, the federal government needed to reform the Interstate Commerce Commission.¹⁴⁸

The commission resisted change or enacted ineffective reform. Between 1946 and 1963, the ICC had granted 96 percent of all requests to abandon rail lines. The commission was less liberal during the Penn Central years in 1968-70, when it approved 89 percent of applications. By 1972, the U.S. rail network had 21 percent fewer miles than in 1920. Although these figures suggest the ICC allowed the railroads to abandon significant mileage, most of the lines were relatively short or economically insignificant. The ICC allowed railroads to shed far fewer of the nation’s excess route miles than was necessary. To retain its authority, the agency protected rate bureaus, which brought railroads together to collude on pricing. ICC commissioners did little to loosen what DOT assistant secretary John Barnum called the “straitjacket” of agency regulations. Although the scent of reform hung in the air, the old guard in the ICC had little interest in putting their jobs at risk.¹⁴⁹

Some observers defended the ICC itself, if not the methods it used to regulate the rails. The chair of the House appropriations subcommittee on the DOT, John J. McFall, argued that cutting the ICC’s budget would not help it resolve internal problems. At a White House meeting on regulatory reform in June 1975, Indiana senator Vance Hartke

chided Ford economic aide Paul MacAvoy for trying to strip the ICC of personnel and funding. “The ICC is not [at] fault” for failing to achieve “quality transportation,” insisted Hartke. Ford Chief of Staff, Donald Rumsfeld, also concluded that the ICC was not a perpetrator, but that laws forced the agency to serve too many functions and overwhelmed its limited staff. An overhaul of railroad regulations could invigorate a smaller ICC or its replacement.\textsuperscript{150}

Senator Thomas Eagleton of Missouri implied that the ICC should just ignore some of its mandates. At a hearing in 1976, the senator wondered aloud whether “the ICC with its longevity of experience dating back to Theodore Roosevelt or John Quincy Adams or somebody, would give [it] sufficient latitude insofar as the rules and regulations.” He probed Chairman Stafford over the necessity of ICC regulations, inquiring mordantly whether it was “in the interest of national security and the survival of the Republic, the health and safety of the Republic, that we have a Federal regulation determining what percentage of a railroad car is to be reserved or unreserved?” His sentiments expressed Congress’ sympathy for the ICC’s unenviable task as well as its frustration with the glacial pace of internal reform.\textsuperscript{151}

While Senator Eagleton vented against the ICC’s “inane” rules, the agency continued to add more. In the mid 1950s, the agency oversaw 75,000 different shipping tariffs. Amendments and new rates accumulated into the 1970s. ICC rates covered


\textsuperscript{151} Senate, Subcommittee of the COA, \textit{DOT and RAA for FY 1977, Section 3}, 94\textsuperscript{th} Cong., 2\textsuperscript{nd} sess., 1976, 575, 628-32.
between 15 and 566 percent of average total costs. This wide spectrum of rates promoted inefficient cross-subsidization of unprofitable shipments and lines. The existence of specific community needs or environmental goals legitimized some rates, but most ICC regulations ignored shipping costs and made little economic sense. In one case, the ICC mandated that a railroad company could use only 20 percent of its “jumbo” hopper cars to carry grain in long unit trains of the same commodity. The commission designed this rule to ensure that enough hoppers would be available to small carriers. As a result, major midwestern railroads could not meet the demand for grain haulage, delaying delivery and adding costs to shippers, carriers, and consumers.152

Voices in Congress and the White House criticized ICC regulations that failed to promote a public or private good. At an appropriations hearing in 1971, Representative Jack Edwards, a Republican from Alabama, charged that outdated ICC regulations “inhibit or discourage the railroads from making needed changes in industry structure, pricing, and service in order to be responsive to competitive market forces.” Edwards called for loosening abandonment procedures and restrictions to target only predatory and monopolistic rates. Due to ICC regulations, the White House reported in 1973, bankrupt railroad “plant and equipment is not dismantled, nor the land and other properties sold.” The ICC also prevented railroads from operating with water or motor carriers, which the rail industry hoped would improve logistics and cut costs.153

152 Itzkoff, Off the Track, 47; MacAvoy and Snow, eds., Railroad Revitalization and Regulatory Reform, 4; George Wilson, “The Effect of Rate Regulation on Resource Allocation in Transportation,” in The Crisis of the Regulatory Commissions, 58-64; Memo, Paul W. MacAvoy to EPB Executive Committee, 24 Nov. 1975, Folder “Economic Policy Board, 11/26/75,” Box 53, Cannon Files, GRFL.
A major complaint against the ICC dealt not with individual rules and rates, but rather its “legendary complexity” and “regulatory lag.” Cumbersome and inflexible bureaucracy defined the work of ICC regulators. In 1975, the Association of American Railroads estimated that during the previous seven to eight years, ICC delays had cost U.S. railroads $1.5 billion. The ICC hemmed and hawed over whether to allow the Chicago, Rock Island, & Pacific Railroad to merge with another company. After the Rock Island applied in July 1963, the ICC dithered for 12 years, consulted 22 rail companies, contemplated 11 proposals, and produced 200,000 pages of records. By spring 1975, the ICC had yet to issue a decision and the Rock Island found itself in a perilous cash position. “Obviously the Rock Island line is no longer the ‘mighty fine line’ praised in folk song,” suggested a DOT legal counsel, but “rather it is a line operating at the very brink of financial insolvency and operational collapse.” Instead of continuing formal merger proceedings, the ICC allowed a group of 23 “railroad men” to split the properties of the Rock Island in April 1975. For the sake of expediency, the ICC accepted their proposal, which had taken the railroaders less than one day to agree upon. Although rail investors’ squabbling had contributed to the lengthy Rock Island proceeding, most of the blame fell on the ICC. The Ford Administration designed its Railroad Revitalization and Regulatory Reform Act to ensure that such gross and unnecessary delays never again impinge the rail industry, federal policymakers, or U.S. producers and consumers.

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154 See page 103 above.
As the Rock Island debacle cast doubt over the ICC’s ability to guide railroad mergers, Chairman Stafford defended the commission’s authority over ratemaking and line abandonment. Since 1970, the National Environmental Policy Act had required the ICC to account for ecological variables through environmental impact statements. These new laws complicated the ICC’s reviews, challenged its traditional economic role, and suggested that more reforms loomed around the corner. To cut railroad expenses, proponents of deregulation called for looser line abandonment requirements. Environmental laws added more layers to this process.

Speaking at a Senate hearing, Stafford worried that environmental and economic reforms of rates and abandonments would diminish the ICC’s oversight function. The chairman fretted that changes in federal regulation might prevent the public from participating in the hearing process. Here Stafford came off as disingenuous, since most Americans were unlikely even to ride a train, let alone read, digest, and comment on an ICC rate case. The ICC resisted liberalizing abandonment and market-entry policies, abbreviating rate review time, or ending rate bureaus. These oversight activities were as fundamental to the agency as coal was to the railroads. Congress should not limit the ICC’s “regulatory function” or its “objective judgment,” urged Stafford in 1974. Yet the commission needed to remain accountable to Congress; full independence had not served the public interest.  

156Senate, Subcommittee of the COA, 

DOT and RAA for FY 1976, Section 2, 94th Cong., 1st sess., 1975, 1750; Senate, Subcommittee on Environment of the Committee on Commerce, 

By allowing the Class I railroads (those with operating revenues of at least $10 million) to abandon too many lines, Stafford fretted, small rail carriers and shippers would suffer. Stafford ignored the burden of providing service for nonexistent demand. Fitting the typical ICC-DOT interagency competition, Stafford opposed shifting any authority from his independent agency to the executive branch. The DOT’s Regulatory Modernization Act of 1972 was anathema to the ICC, which hoped to scuttle the bill. The Federal Railroad Administration, a DOT agency, already oversaw rail safety when, in 1975, Congress sought to allow the DOT to set time limits on ICC review processes. The ICC objected when politicians proposed to transfer its authority to the executive branch.\(^{157}\)

The ICC’s resistance to reform in the early-to-mid 1970s hurt the railroads and ensured that Congress would eventually downsize the agency. The ICC sympathized with the railroads’ plight but was unwilling to act, says historian Lawrence Rothenberg. After interviewing former members of the commission, he concludes, “If the ICC’s antagonism toward the railroads had not made it so slow to aid the rails, even after legislation was passed in the first half of the 1970s, the Staggers Act [of 1980] would have been unnecessary.” In a letter to the Ford Administration, Robert Corber, a former employee at the ICC, suggested that internal reform would preclude the need to overhaul regulatory agencies completely. “It has appeared to me ironic,” wrote Corber, “that the ICC, an institution which is virtually a Republican invention, should receive the strongest

\(^{157}\) Memo, Jim Cannon and Bill Seidman to the President, 29 Apr. 1975, Folder “Railroad Revitalization Act,” Box 17, Duval Files, GRFL; House, Subcommittee on DOT and RAA of the COA, DOT and RAA for 1975, Section 5, 93rd Cong., 2nd sess., 1974, 37; House, Subcommittee on DOT and RAA of the COA, DOT and RAA for 1973, Section 2, 92nd Cong., 2nd sess., 1972, 987-90; Derthick and Quirk, Politics of Deregulation, 81-82.
challenge to its right to exist from Republican quarter.” The Republicans in Ford’s White House had no qualms drafting a reform package when none came from the ICC itself. Only after the Ford Administration initiated regulatory reform and President Ford signed the 4R Act in 1976 did the ICC amend its rules. Within a few months the ICC prepared 61 regulatory reforms to streamline operations, reduce regulatory lag, and enhance some of its existing ratemaking policies. Bowing to deregulatory pressures, the ICC implemented 25 of those 61 reforms by 1978. One amendment called on railroads to provide more information on abandonment cases to the ICC environmental staff, while another imposed time limits for case deliberation. Most importantly, the ICC granted railroads greater rate flexibility. After the 4R Act, Chairman Stafford even tempered his stance on trucking regulation. By the late 1970s, the ICC had shifted its tone.

Strangely, Derthick and Quirk imply that the ICC showed a proactive willingness to reform itself before Congress and the Ford Administration passed the 4R Act. The authors contend that “Congress intervened to stop [the ICC’s radical deregulation] and take legislative action instead.” For Derthick and Quirk, the independent agencies brought about pro-competitive deregulation first, leaving Congress little choice but to react. For the ICC, at least, documentary evidence refutes their claim and illustrates the ICC’s comprehensive efforts to stymie regulatory reform through early 1976. Certainly under the chairmanship of George Stafford, pro-reform voices in the commission gained little ground. The Railroad Revitalization and Regulatory Reform Act mandated changes

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158 Rothenberg, Regulation, Organizations, and Politics, 201-03; Letter, Robert J. Corber to the President, 7 July 1975, Folder “Corres. – Regul. Commissioners (1),” Box 30, Schmults Files, GRFL.
in the ICC and shifted some authority to the DOT. Only after 4R became law did the ICC offer its own suggestions, some of which actually expanded its oversight. Pressure from the Ford Administration and the deregulatory zeitgeist finally allowed reformers to redirect the ICC. Pro-competitive commissioners like A. Daniel O’Neal and Darius Gaskins gained sway in the ICC during the Carter Administration, but they did not produce substantive reforms until the late 1970s. With the Staggers Act of 1980, Congress acted to moderate the ICC’s internal reforms. Contrary to Derthick and Quirk’s claims, Congress and the Ford Administration had begun the process five years prior.¹⁶⁰

Regulation and the DOT

The trend toward economic deregulation also touched the DOT. When Congress and the Nixon Administration formulated the Regional Rail Reorganization Act of 1973 (3R) to resurrect the Northeastern railroads, DOT secretary John Volpe was “not about to give out the goodies [subsidies] without regulatory reform.” The DOT and ICC had to change their policies on light-density lines and abandonment approvals before the government would distribute funds. Prior to the 4R and Staggers acts, the DOT’s regulatory authority included disbursing grants to railroads, overseeing safety and environmental laws, and working with the ICC to assess ex parte rate requests. The DOT ensured that reforms in the 1970s transferred authority to it from the independent ICC. John J. McFall, the chairman of the House transportation appropriations subcommittee, agreed that regulatory reform should shift authority away from the ICC to reduce regulatory lag and increase accountability. By the end of the 1970s, few members of

¹⁶⁰ Derthick and Quirk, Politics of Deregulation, 71-75, 83, 96.
Congress objected to expanding the executive DOT at the expense of the much-maligned ICC.\footnote{Memo, Alan McAdams to Marina Whitman, 25 May 1972, Folder “Railroad Study, February-March 1973 (2),” Box 70, Seevers Files; Report, “Regulatory Overview: Department of Transportation,” [undated], Folder “Transportation Department,” Box 27, Paul C. Leach Files, 1974-76 [hereafter Leach Files], GRFL; House, Subcommittee on DOT and RAA of the COA, DOT and RAA for 1977, Section 3, 94th Cong., 2nd sess., 1976, 453-54; House. Subcommittee on the DOT and RAA of the COA, DOT and RAA for 1976, Section 5, 94th Cong., 1st sess., 1975, 492.}

Shortly before the energy crisis of 1973, President Nixon nominated Claude S. Brinegar to succeed Volpe as DOT secretary. A statistician and executive in the oil industry, Brinegar had never before served in the public sector or transportation. Brinegar devoted relatively little attention to the railroad industry, which he considered “pathetic.” Reacting to the oil shock in late 1973, Brinegar guided his department to research energy efficiency. As always, the DOT focused primarily on automobiles and highways while rail played a secondary role. Brinegar personally authored most of a 59-page report on the state of the railroads, in which he urged Congress to seek private solutions. Ultimately, Brinegar never escaped his status as a “second-class secretary,” as historian Mordecai Lee labeled the DOT chief. Unable to find an advocate in the Nixon White House, Brinegar lasted only a few months into the Ford presidency.\footnote{Loving, The Men Who Loved Trains, 158-62, 165; Senate, Subcommittee of the COA, DOT and RAA for FY 1975, 93rd Cong., 2nd sess., 1974, 213; Mordecai Lee. Nixon’s Super-Secretaries: The Last Grand Presidential Reorganization Effort (College Station: Texas A&M University Press, 2010), 73-74.}

In March 1975, President Ford nominated Bill Coleman to the DOT secretaryship. The president knew Coleman from his service as a lawyer for the Warren Commission. Coleman shared Ford’s disdain for big government and searched for private ways to resurrect the ailing railroads. At his first appropriations hearings as DOT secretary, he called for “regulatory modernization” to promote technological innovation,
competitiveness, higher efficiency, and better quality rail service. Representative Silvio O. Conte, a Republican from Massachusetts, complimented Coleman’s “moxie” and zeal for regulatory reform. Republican legislators and consumer advocates lapped up Coleman’s calls to trim “red tape” in the DOT and ICC, but federal transportation bureaucrats were more skeptical. During his tenure at the DOT, Coleman struggled to shake his reputation for being stubborn, blunt, spiteful, and vain. Although he may have lacked finesse, Coleman oversaw some of the most lasting postwar reforms in U.S. transportation.  

Secretary Coleman and his assistant secretary John W. Barnum advocated a strong policy of deregulation. To avoid saddling the federal government with expensive programs, they sought ways for private corporations to pay for passenger and freight rail rehabilitation. Throughout much of 1975, Coleman tried to scuttle the plan to create Conrail, which he thought posed an unwise, “open-ended” commitment. He preferred a “controlled transfer” of bankrupt carriers’ properties to solvent railroads. After the passage of the 4R Act in February 1976, Joe Skubitz, a Republican representative from Kansas, worried that the “DOT is trying to destroy Amtrak” by pressing for impossible levels of efficiency. Secretary Coleman had little patience for Amtrak’s growing deficits. Judy Hope, an aide in the Ford White House, found “bad blood between Amtrak and

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DOT” and “a personal bias by Coleman and Barnum against the way Amtrak funds and decisions are being managed.” A representative from Indiana quoted Coleman as having said, “Amtrak is one of the greatest rip-offs I have ever seen.”

At the end of Coleman’s tenure, the DOT issued a report that questioned rail’s cost effectiveness, especially since so few Americans demanded rail service. Paul Reistrup, the head of Amtrak, criticized the so-called “Coleman report” for comparing “apples and oranges” and ignoring Amtrak’s mandate to serve the entire country, not just the Northeast Corridor. Secretary Coleman failed to derail Amtrak and Conrail, both of which reshaped U.S. railroading, though at great cost to the national government. Brock Adams, the first DOT secretary of the Carter Administration, was a less fervent deregulator than his predecessor. Adams patched up relations with the ICC, Amtrak, and Conrail, all of which became more effectual by the late 1970s. Like Secretary Brinegar during the oil crisis of 1973, Secretary Adams devoted many DOT resources to ameliorate the energy crunch of 1978-79. Adams’ emphasis on fuel efficiency and cost effectiveness ultimately cost him his job. President Carter fired Adams in 1979 for advocating a 43% reduction of Amtrak. Neil Goldschmidt, a light-rail advocate and former mayor of Portland, Oregon, served as DOT secretary for the last two years of the

Carter Administration. Five secretaries led the DOT during the 1970s, which helps to explain why the department’s message and emphasis fluctuated every few years.\textsuperscript{165}

Amtrak: Passenger Rail Clings to Life

Unlike the DOT, Amtrak had a singular mission since its inception: provide non-commuter intercity passenger rail service where the market either does not or cannot.

After the Second World War, U.S. railroads had struggled to deliver adequate passenger service. As rail companies in the Northeast collapsed and failed to serve customers, the Nixon Administration proposed a stopgap solution. The emergency bill established a federal body to offer passenger service and ended railroads’ passenger obligations. In October 1970, the Rail Passenger Service Act created the National Rail Passenger Corporation, or “Railpax,” a curious public-private entity. Congress gave ownership of Railpax stock to the DOT, but management remained in private hands. The corporation did not own its tracks, instead leasing lines from solvent railroads in the Northeast Corridor (NEC) and elsewhere. To avoid association with the dirty, ailing railroad industry, the government soon omitted the word “rail” and adopted the name Amtrak.\textsuperscript{166}

The emergence of Amtrak reflected the long-term decline of railroading in American life. Aside from commuters in the Northeast (especially around New York) and those who used mass transit rail systems in other U.S. cities, very few Americans rode the rails by the early 1970s. Many in Congress, the rail industry, and the public felt that the

\textsuperscript{165} House, Subcommittee on DOT and RAA of the COA, \textit{DOT and RAA for 1978, Section 3}, 95\textsuperscript{th} Cong., 1\textsuperscript{st} sess., 1977, 434-43; Coleman, 238; House, Subcommittee on DOT and RAA of the COA, \textit{DOT and RAA for 1979, Section 6}, 95\textsuperscript{th} Cong., 2\textsuperscript{nd} sess., 1978, 163-64, 169-70; Saunders, \textit{Main Lines}, 170.

nation must possess a reliable passenger rail system. Clinging to nostalgia, some insisted the United States still needed a sprawling, ubiquitous passenger network. Disparaging this notion, the New York Times wrote, “It is clear to everyone that Amtrak is a pitiful apology for a rail system inadequate to restore the pride and pleasure Americans once took in the passenger trains that kept the country together.” Others approached rail simply as a matter of commerce; some businesspeople, mostly in the Northeast, still relied on the train. In the late 1960s and early 1970s, rails reached more towns than did bus, air, or taxi service. Politicians worried about the ramifications of car-less constituents becoming immobile.

In their attempt to cut costs, the railroad companies had long been downsizing their passenger services. Historian Donald M. Itzkoff labels this phenomenon the “discouragement thesis”: railroads had never profited from passengers and intentionally provided poor, unreliable service to drive away customers. Freight was far more lucrative, stable, and attractive. Those brave souls who continued to patronize the rails endured higher ticket costs, more fees, fewer amenities, and aging railcars. Exemplifying the standard tactics, the Rock Island deliberately lengthened its travel time, reduced the frequency of its service, and scheduled its trains to depart at odd or inconvenient hours. Disgusted with the precipitous decline in service, passengers abandoned the rails for the highways. Amtrak did not stem the tide to the automobile, but it relieved the railroads’ obligation to offer unprofitable service. By 1977, Amtrak provided all but 2,000 miles of passenger lines for the entire country. Just three private companies still ran long-distance intercity routes. The passenger train no longer left an appreciable mark on the American

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167 Itzkoff, Off the Track, 105.
transportation system, the national psyche, or the landscape. Venerable train stations persevered in thousands of towns and cities across the country, but the whistle of the 8:55 to Peoria no longer blew and the tracks grew cold.¹⁶⁸

Federal agencies acknowledged that full passenger trains conserved more energy than their competitors, but very few trains ran with full compartments. Henri Rush, a pro-rail deputy at the Federal Railroad Administration, said, “Although a modern train operating at capacity is an inherently efficient mode of transport, a half-empty train is not.” The ICC urged Congress to “make rail travel attractive, especially during periods of fuel shortages.” Amtrak ridership ballooned during the oil crisis of 1973-74, increasing both per-capita fuel efficiency and costs. Many at the DOT, Amtrak, and Congress felt that as long as the federal government paid for rail service, it might as well encourage more Americans to hop aboard. Short- and medium-distance trips, including in the NEC, enjoyed relatively high efficiency. Long-distance train travel, however, remained incredibly inefficient and offered no appreciable social or environmental benefits. Although it shied away from comparisons to luxury liners, Amtrak ceded that its long-distance routes catered to the “vacation type market for people who really aren’t in a hurry to get anywhere and are enjoying the train ride or living in nostalgia.” At least in the short term, most members of the DOT and Congress were willing to incur costs to

provide necessary intercity service, but some resented that Amtrak subsidized unpopular, unprofitable, and unsustainable long-distance traffic.\textsuperscript{169}

Amtrak invested in the Northeast Corridor unlike any other route. A respectable number of passengers still demanded rail service between Washington, DC and Boston. In 1971, Secretary Volpe claimed that Amtrak had prevented the collapse of intercity rail in the Northeast. The loss of intercity traffic along the NEC could have crippled the Port of New York and many white-collar businesses in Manhattan. Since the 1960s, Congress had wanted not merely to sustain traffic and return the NEC to its early-20\textsuperscript{th}-century glory, but convert it into a world-class high-speed rail (HSR) network. The rail community thought a top speed of 150 miles per hour would lure passengers away from air and highway competitors. The DOT, railroads, government agencies, and private corporations conducted feasibility studies, developed components of high-speed technology, and lobbied for federal funding.\textsuperscript{170}

The limited resources and inflation of the mid 1970s gave Congress pause; high-speed rail in the NEC became a pipe dream. By 1975, HSR costs had surged to over ten times the original projections. DOT planners proposed more modest ideas. The 4R Act of 1976 transferred ownership of the NEC to Amtrak, giving the passenger provider its first true line. To keep the budget under control, President Ford had hoped to lease the line to Amtrak instead, but conceded in exchange for the 4R regulatory reforms. Scrapping

\textsuperscript{169} House, Subcommittee on the DOT and RAA of the COA, \textit{DOT and RAA for 1976, Section 3}, 888; \textit{Section 4}, 634-36; and Section 5, 94\textsuperscript{th} Cong., 1\textsuperscript{st} sess., 1975, 491-92; House, Subcommittee on DOT and RAA of the COA, \textit{DOT and RAA for 1975, Section 5}, 93\textsuperscript{rd} Cong., 2\textsuperscript{nd} sess., 1974, 796; House, Subcommittee on DOT and RAA of the COA, \textit{DOT and RAA for 1978}, 95\textsuperscript{th} Cong., 1\textsuperscript{st} sess., 1977, 483; Itzkoff, \textit{Off the Track}, 113.

\textsuperscript{170} Report, “Consequences of a Shutdown of the Penn Central Railroad,” 1 Oct. 1970 (6-7, 13), GRFL; Senate, Subcommittee of the COA, \textit{DOT and RAA for FY 1972}, 92\textsuperscript{nd} Cong., 1\textsuperscript{st} sess., 1971, 844.
HSR, Amtrak hoped that improvements to the NEC would cut travel times between Washington and New York to two hours and 40 minutes and service to Boston taking another three hours and 40 minutes. Highway and airport projects dwarfed the “BosNyWash” NEC plan, which required only 1,350 acres, mostly in rural areas. 1,350 acres would allow for just 19 miles of highway; the Dallas-Fort Worth airport consumed 18 times as much land as the entire NEC project.\(^{171}\)

Amtrak and its Northeast Corridor route faced the twin challenges of tight budgets and impossible expectations. Detractors of the passenger rail service pointed to the cost of upgrading the NEC. Nearly every bridge and tunnel required maintenance, stations were inadequate, many tracks demanded attention, and stretches of the route needed realignment or straightening. In 1976, these investments, new fences, signals, electrification projects, and yard improvements equaled $1.9 billion over four years. Inflation increased the project’s wage and price expenses, adding another $90 million just in 1976. Lacking federal funding, few railroads had electrified their tracks. The electrification of the NEC alone would cost $245 million, or $320,000 per mile. Squeezed by the budgetary vice, Amtrak enjoyed few opportunities to take advantage of its projects’ beneficial social, environmental, and low land-use patterns. Nevertheless, Amtrak touted the fuel, resource, and land savings from electrification of the NEC. As it

determined which routes to maintain and which to cut, the passenger rail service weighed each line’s economic costs along with its social and environmental merits.\footnote{House, Subcommittee on DOT and RAA of the COA, \textit{DOT and RAA for 1977, Section 3}, 94\textsuperscript{th} Cong., 2\textsuperscript{nd} sess., 1976, 61-68, 71-72, 92, 229-30, 312, 349-51; Senate, Subcommittee of the COA, \textit{DOT and RAA for FY 1976, Section 1}, 94\textsuperscript{th} Cong., 1\textsuperscript{st} sess., 1975, 318; \textit{…DOT and RAA for FY 1977, Section 3}, 94\textsuperscript{th} Cong., 2\textsuperscript{nd} sess., 1976, 527, 558.}

Experts agreed that a fully loaded train consumed less fuel, released fewer emissions, produced less noise, and occupied far less land per passenger than competing modes. Yet all but the most diehard Amtrak supporters felt that its exorbitant costs outweighed its benefits to communities or the lands through which it passed. Since almost no trains traveled at capacity, most members of the DOT and the Ford, Carter, and Reagan administrations thought Amtrak—except for the NEC—was a colossal waste. Congress and the DOT recognized that government subsidies to highways, airports, and waterways undermined the railroads, but then complained when Amtrak received special treatment at the expense of bus and air competitors. DOT secretary Coleman called the subsidization of a quasi-public corporation “perverse,” given that so few people rode the rails. The DOT “Coleman report” questioned the claim that social and environmental considerations warranted such an expensive rail network.

In 1976, Americans traveled 85.2 percent of their miles by automobile versus 0.4 percent by train; the federal government spent $4.9 billion on highways and an astounding $0.9 billion on rail. The following year, Amtrak estimated that it required $2.2 billion to continue operations and $0.98 billion to improve its infrastructure through 1980. Amtrak’s five least efficient lines drained $30 million per year yet served hardly any passengers. The corporation spent $110,000 per year just to sweep St. Louis station,
which saw three trains per day. Itzkoff estimates that in its first 12 years of operation, Amtrak cost the government $7 billion. During the 1970s, Amtrak ridership grew modestly, operating losses shrank slightly, and the quality of service increased bit by bit. Yet new tracks, locomotives, and rolling stock, curve realignment projects, land purchases, and station overhauls posed enormous burdens. In 1977, Representative Silvio Conte presciently foresaw that Congress would subsidize Amtrak “from here to eternity.”

Perhaps the greatest detriment to Amtrak’s efficiency and profitability was its rapid politicization. Members of Congress treated the national rail system as “an arbitrary connect-the-dots exercise which dictates services between geographic points without regard to cost or ridership,” vented Amtrak administrator Ace Hall in 1976. Since Amtrak’s inception in 1970, members of appropriations committees in both houses of Congress used their clout to send “experimental routes” to their constituents. Two of the most notorious legislators to bring home the bacon were Senator Robert C. Byrd and Representative Harley O. Staggers, both West Virginia Democrats. Byrd and Staggers spent much of the 1970s defending the West Virginian, Shenandoah, and Mountaineer lines. These routes saw few patrons, low efficiency, and high costs per capita. Senator Byrd devoted much of a 1976 hearing to show Paul Reistrup, an Amtrak administrator, how rail lines in West Virginia were less inefficient than other routes, and thus merited

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further subsidy. (Amtrak often measured its routes not by efficiency or profitability, but rather by per capita costs and deficits.) The press lampooned the Shenandoah as the “Staggers Special” and “Harley’s Hornet.” In 1977, the train cost $2.4 million to operate and carried an average of 33 passengers, most of whom traveled only the first 50 miles into the suburbs of Washington. Historian Craig Sanders remarks, “This is a story of how political influence shaped Amtrak’s route network.”

Influential legislators from both parties abused Amtrak’s mission to run experimental routes. For many years, Senator Mike Mansfield ensured that an Amtrak line served sparsely populated Montana. After calling Amtrak an “expensive gamble” at a hearing in 1976, Senator Thomas Eagleton devoted several pages of the Congressional Record to request funding for the low-traffic St. Louis train station. Candidly admitting how his committee doled out money for pet projects, Representative Robert B. Duncan of Oregon asked, “Who is going to make the decision with respect to Mr. [Silvio] Conte’s train besides Mr. Conte?” The rhetorical question filled the hearing room with laughter. One can imagine the legislators’ ears perking up when they heard about subsidies for lines and stations in their states. They condemned Amtrak’s expenses and failures while lobbying hard for costly and inefficient service for their constituents. Amtrak did not wish to give up its experimental lines, yet it knew the only way to remain in business was

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to appease a few powerful members of Congress while cutting inefficient and unproductive pet routes.\textsuperscript{175}

Early Reform Attempts and 3R

Deregulation was not viable in the early 1970s, but it became almost as popular as pork-barrel deals by the end of the decade. In 1971, the DOT sponsored the Transportation Regulatory Modernization Act to “unleash the railroads” from their regulatory shackles, as one department officer suggested. Scoffing at the inefficacy of the plan, one Nixon official quipped, “The outlook is similar to that achieved when we ‘unleashed Chiang Kai-Shek.’” Indeed, the Nixon Administration offered little support for the DOT attempt to deregulate the rails. Derthick and Quirk suppose that despite his public calls for reform, President Nixon bowed to pressure from the Teamsters Union. In 1971, the ICC commissioners had little political or ideological will to reduce their regulatory authority, and also opposed the bill. The Modernization Act would have aligned railroad rates with costs to save money for both shippers and carriers. It also proposed to set new standards for line abandonment, which would have accelerated the rails’ efforts to shrink their trackage. Although Nixon signed Amtrak into law in 1970, his failure to support the reform bill in 1971–72 showed a hesitance to buck the transportation system.\textsuperscript{176}


The alleviation of the railroads’ passenger problem with Amtrak in 1970 did little to prevent the looming freight disaster. The highly regionalized rails struggled as the slow economy gradually shed its industrial base. As Penn Central and other weak railroads declared bankruptcy in the early 1970s, the Nixon Administration and Congress sought a way to stave off a transportation collapse in the Northeast. The loss of rail service threatened a financial shock “sufficient to create a downward economic spiral as great or greater than that experienced in any postwar recession,” brooded a Nixon White House memo. A temporary shutdown would not prove “insurmountable,” but restart costs and delays could damage fragile shippers and carriers. By 1973, congressional economic forecasters worried that a major rail shutdown could suppress the gross national product by three percent in just two weeks.177

Two representatives led the railroads, rail labor, and shippers to prevent an economic calamity. Dick Shoup, a Republican from Montana, and Brock Adams, a Democrat from Washington, enlisted the expertise of the Union Pacific railroad to draft a bill. In Main Lines, Richard Saunders mocks how Congress created the “Shoup-Adams bill,” which became the Regional Rail Reorganization Act. Saunders writes, “Union Pacific supplied the bill. Citibank supplied the financial data. The United Transportation Union wrote the labor contracts. Committee work was minimal. So was floor debate on November 8, 1973.” The bill stoked no partisan debate; most members of Congress

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focused on ways the proposal encouraged economic and fuel efficiency. The oil crisis, not the environmental movement, informed their opinion of rail legislation.\footnote{178}

On 2 January 1974, President Nixon signed the 3R Act into law, establishing the Consolidated Rail Corporation (Conrail) and the U.S. Railway Association (USRA). Freight-hauling Conrail differed from Amtrak in two ways: railroad companies, not the DOT, owned Conrail stock, and funding came from private sources, though the federal government guaranteed loans. The stockholders managed Conrail’s freight system while the USRA developed a proposal for the corporation’s final network. Through a $1.5 billion government fund, Conrail acquired property from bankrupt Northeastern railroads. Penn Central comprised much of Conrail’s trackage, yards, and stations. The 3R Act provided essential funds for Conrail to rehabilitate its infrastructure. The railroads’ inability to pay for labor to fix their tracks had left tens of thousands of workers unemployed. According to the Labor Department, for each $1 billion spent to upgrade U.S. rails under the 3R Act, Conrail would hire 35,000 persons. Although the labor program would cost about $3 billion over two years, President Ford and the DOT welcomed the opportunity to create maintenance projects that promised to diminish unemployment in the Northeast.\footnote{179}

As the Council of State Governments suggested, the 3R Act addressed the railroad problem “as one of excess branch lines and track for which abandonment [was]

\footnote{178 Senate, Committee on Commerce, \textit{Penn Central and Other Railroads}, “Part II: The American Railroads: Posture, Problems, Prospects,” prepared by Richard J. Barber, 92d Cong., 2d sess., Dec. 1972, Committee Print S262-4, LexisNexis, 211; Loving, 162-64; Saunders, \textit{Main Lines}, 89-93.}

the only long-term solution.” Without a unified lobbying organization, branch-line users had little clout in the legislative process. The act temporarily halted abandonment of rail lines in the Northeast. The USRA and the DOT scrambled to devise methods for deciding which lines to shed and which to upgrade. Richard Saunders characterizes the fight over light-density line abandonment policy as a “titanic struggle” between George Stafford, the ICC chairman, and Bill Coleman, the DOT secretary. Coleman initially advocated allowing Conrail to abandon lines carrying less than 75 cars per year. Stafford, upset that 3R transferred his agency’s authority over abandonments to the USRA, objected that the DOT policy ignored the tonnage or revenue of a line. Conrail desperately needed liberal abandonment rules to dispose of the least useful lines, but Coleman’s fast-track abandonment proposal posed significant spatial and social implications for U.S. communities and landscapes. The DOT, ICC, and USRA finally agreed on the modest 34-car rule to ensure that economic and environmental factors would prevent Conrail from abandoning too many lines. The corporation was best served by abandoning unprofitable light-density lines that saw fewer than 34 railcars per year.  

In a 1973 report, the DOT recognized three ways the 3R Act directly impacted the human environment: “(a) social and economic effects on communities that lose railroad service; (b) energy use and pollution increases due to shift of rail freight to trucks; and (c) change of right-of-way to other uses where service has been abandoned.” All evidence suggested that very few communities would suffer as traffic moved to trucks. Since trucks emitted fewer pollutants than under-loaded locomotives, some shippers would

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pollute less by hiring trucks. The DOT concluded, “From the standpoint of the overall balance between truck and rail freight… this proposal is expected to have an overall beneficial impact.” The report is significant for several reasons. First, the DOT clearly took NEPA and other new social regulations seriously. The department accounted for the ecological consequences of transportation law. The DOT also acknowledged the interconnection of human and natural environments. The railroads’ departure from communities and spaces resulted in economic and social change. Finally, the DOT concluded that by freeing railroads from strict abandonment rules, the regulatory reform package actually improved local communities and landscapes. The 3R Act met the DOT goal of minimizing adverse environmental effects.181

As the shift from rail to trucks paid environmental and economic dividends for many light-density lines, federal transportation policy continued to divert traffic from less-efficient modes to cost-effective main rail lines. Railroads consumed only 3.5 percent of all transportation energy, yet hauled 37 percent of U.S. intercity ton-miles. By trimming the excesses and reorganizing the Northeast’s rail network, the 3R Act focused more traffic onto main lines and through fewer yards. The reform package ensured that Conrail could maximize its logistical efficiency while trimming the environmental impact and spatial presence of transportation in the Northeast. By establishing steps for Conrail’s full privatization, the 3R Act avoided nationalizing American rail, which politicians and industry insiders across the ideological spectrum worried would have institutionalized inefficiency. As quasi-private corporations, both Amtrak and Conrail received their

funding from the federal government. Of the two, only Conrail became both economically self-sustaining and environmentally attractive.\footnote{182}

Conrail: The Bridge from 3R to 4R

Shortly after becoming DOT secretary in March 1975, Bill Coleman formed an interagency task group to revise Conrail’s “Preliminary System Plan,” or PSP. Covering a swath of interests, the board included the Treasury and Transportation departments, the Council of Economic Advisors, the Office of Management and Budget, and President Ford’s Economic Policy Board. The group evaluated finances for Conrail’s equipment and track rehabilitation, devised incentives to encourage efficiency, and promoted regulatory reform. The PSP called for a $3.77 billion package to repair and modernize Conrail’s physical capacity, identified 11,800 miles of light-density lines for potential abandonment, and ordered Conrail to acquire over 20,000 new rail cars and repair another 111,000. Some in Coleman’s task group, including Coleman himself, advocated scrapping Conrail for the “controlled transfer” of Northeastern rails to solvent companies. Coleman’s hotheadedness scuttled negotiations with the Norfolk & Western (N&W) and the Chesapeake & Ohio (Chessie), which balked at the prospect of acquiring dilapidated infrastructure in the Northeast. Had Congress and the DOT flashed more money before them, the N&W and Chessie might have obliged Coleman.\footnote{183}

\footnote{182} House, Subcommittee on DOT and RAA of the COA, \textit{DOT and RAA for 1978, Section 3, 95th Cong., 1st sess., 1977}, 744; Report, “Statement of Environmental Impact Pursuant to Section 102(2)(C) of the \textit{National Environmental Policy Act},” GRFL.

The “Final System Plan” (FSP), which emerged in June 1975, called for a “Three Carriers East” plan. The three carriers—Conrail, the N&W, and the Chessie—would dominate the U.S. freight rail market east of the Mississippi River. Planners at the USRA and DOT expected the Three Carriers East system to provide the most competition and efficiency among the options they considered. DOT Deputy Secretary John Barnum touted the FSP as a step toward enjoying the “energy and environmental benefits of a sound, privately owned and operated rail system.” By trimming Conrail’s network from 24,000 route miles to just 15,000, the Northeast would finally have an appropriate amount of track. Line abandonment could pose real economic challenges for a few towns, but many places would notice only slight spatial consequences as rail service ended.\(^{\text{184}}\)

At a meeting with President Ford in early June 1975, governors from the Northeast and Midwest gathered to waylay the FSP. William Milliken of Michigan, Milton Shapp of Pennsylvania, Marvin Mandel of Maryland, and a dozen other governors worried that the USRA/DOT policy on light-density lines would ruin their manufacturing centers and small towns. Some proposed measuring a line’s viability not in terms of profitability to the railroads, but rather by the degree to which shippers or a community relied on the local line. Reacting to the high unemployment and falling tax revenues of the “Age of Limits,” the governors understandably fought for their states’ businesses and

\(^{\text{153, Seidman Files, GRFL; Coleman, Counsel for the Situation, 238; Rose, Seely, and Barrett, The Best Transportation System, 172-73; Saunders, Main Lines, 101, 103.}}\)

\(^{\text{184 Remarks by John W. Barnum at USRA, 28 Jul. 1975, Folder “Barnum, John W. (Deputy Secretary of Transportation) (2),” Box 170, Seidman Files; DOT, National Transportation Trends & Choices, 195.}}\)
residents. They expressed little sympathy for railroads and overlooked the dire implications of a collapse in regional freight service.185

Conrail officially opened for business at midnight on 1 April 1976. Its six component railroads—the Erie Lackawanna, the Jersey Central, the Lehigh & Hudson River, the Lehigh Valley, the Penn Central, and the Reading—existed for a short time more as names on the sides of railcars and locomotives. From its headquarters in Philadelphia, the home of the former Penn Central, Conrail fully operated only 15,400 of the six railroads’ 24,000 miles of line. Conrail shed over 2,000 miles of unprofitable branch lines in the Northeast and Midwest almost immediately. The remaining 6,600 miles of line were in various stages of abandonment. Since 5,000 of those miles carried only two percent of Conrail traffic, they held little chance for profitability and thus became prime targets for abandonment. The USRA slated 491 miles for abandonment in Ohio, the state with the most closures. Michigan, Pennsylvania, and New York each lost over 300 miles. State and local governments provided information to help the USRA determine which lines deserved continuation subsidies. Although economic concerns played the most significant role, the USRA also considered social goals like employment, environmental degradation, and community development. Line closures caused few

185 Talking points for meeting with Northeast and Midwest governors, 6 Jun. 1975; Meeting minutes from meeting between President and Midwest and Northeast governors, 7 Jun. 1975, Folder “Meeting with the President: 6/7/75, Midwest & Northeast Governors (railroads) (1)”; Report on USRA Preliminary System Plan Summary, 6 Jun. 1975, Folder “Meeting with the President: 6/7/75, Midwest & Northeast Governors (railroads) (2),” Box 6, Duval Papers, GRFL; Rose, Seely, and Barrett, The Best Transportation System, 171.

By merging six eastern carriers, Conrail maintained fewer miles, trimmed duplicate lines and facilities, and created a more efficient regional system to meet modern needs. The DOT encouraged Conrail, the N&W, and the Chessie to seek agreements with western carriers like the Atchison, Topeka & Santa Fe, the Burlington Northern (BN), and the Union Pacific (UP). East-West cooperation reduced delays and saved fuel. Railroads in both regions suffered from inflation, the weak economy, high labor costs, and expensive maintenance programs. However, companies like BN and UP benefited from the westward demographic shift and the abundance of low-sulfur coal in the Rocky Mountains. The growing preference for western coal encouraged the trend toward carrying commodities and containers.\footnote{Memo, William T. Coleman, Jr. to William E. Simon and L. William Seidman, 19 Apr. 1976, Folder “Coleman, William T. (2),” Box 175; Memo, John W. Barnum to EPB Task Force on Northeast Rail Restructuring, 27 May 1975, Folder “Barnum, John W. (Deputy Secretary of Transportation) (1),” Box 170, \textit{Seidman Files}; Report, “Union Pacific Corporation 1975 Annual Report,” Folder “Union Pacific Corporation,” Box 42, \textit{Hope Files}; Report, “An Analysis of the Financial Viability of Conrail,” 6 Aug. 1975, Folder “Railroads—Financial Viability of Conrail,” Box 17, \textit{Duval Files}, GRFL; House, Subcommittee on DOT and RAA of the COA, \textit{DOT and RAA for 1978, Section 3}, 95th Cong., 1st sess., 1977, 39-44.}

The USRA and DOT recognized that Conrail’s future depended not on hauling light goods between close points, but rather on moving bulk and containers over longer distances. Amtrak, too, benefited from infrastructure developments in freight transportation. The 3R Act and the Amtrak Improvement Act of 1974 encouraged the
USRA and the DOT to help develop intermodal facilities for Conrail and Amtrak. Intermodal facilities transfer containers on and off ships, barges, trucks, and trains. By containerizing their freight, these different modes cut fuel and labor costs, reduced shipment time, and rendered some urban yards obsolete. Smoother logistics helped Conrail earn profits more quickly during the late 1970s. Intermodalism also breathed new life into many train stations across the country. Union Station in Washington, DC, Union Terminal in Cincinnati, and Penn Station in Baltimore all became hybrids, catering to both Amtrak passengers and intermodal freight carriers (see “fig. 7”). The Amtrak Improvement Act adapted historically, architecturally, and culturally significant stations for modern transportation needs.  

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Congress, the Ford Administration, and the DOT bundled a broad set of railroading issues into the Railroad Revitalization and Regulatory Reform Act of 1976. This sprawling omnibus package addressed Amtrak and Conrail, rehabilitation funding, infrastructure, rate-setting, government regulation, environmental impacts, and preservation. The 4R Act proved less effective than its authors and promoters intended, but was an integral step toward modernizing both federal oversight and U.S. railroading itself. Bill Coleman checked off two of his four top priorities as DOT secretary: revitalize the rail industry and restructure transportation regulation. Shortly before President Ford signed the 4R Act into law on 5 February 1976 (see “fig. 8”), Coleman congratulated his
boss for completing “the first significant success that any Administration has had in seeking transportation regulatory reform.” Ford and Coleman ensured that the railroad bill tied government loan guarantees to appropriate and necessary reforms.189

Historians have focused mostly on congressional work in drafting the 4R Act. To grasp the full picture, one must study President Ford’s give-and-take with Congress and his dialogue with the American people. Ford got the wheels rolling down the tracks again and brought “deregulation” into mainstream parlance. Hinting at the Ford Administration’s essential role, Rose, Seely, and Barrett write, “Whether by administrative or legislative action, the drive toward deregulation… began and ended as presidential—and political—initiatives.” Accounts of railroad deregulation also tend to gloss over the 4R Act and dwell on subsequent legislation. The 4R Act took crucial steps toward giving railroads more freedom, especially to choose whether to abandon unprofitable lines and reduce their presence in cities and the countryside. Richard Saunders, whose book Main Lines focuses on economic and business trends in railroading in the 1970s and beyond, concludes, “The 4R Act was a far more important piece of legislation than it is given credit. It was an important waystop on the road to the Staggers Act of 1980 that would go much further to deregulate the railroads.” Yet Saunders understates much of the Ford Administration’s participation in the legislative process and does little to address how the 4R Act reshaped line abandonment policy.190

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Highlighting the importance of railroads in Ford’s coal-oriented “Project Independence,” the administration blended its “Transportation Improvement Act” with a House bill to create the “Railroad Revitalization and Energy Transportation Act.” As the administration honed its deregulatory agenda in early 1975, the bill evolved into the Railroad Revitalization and Regulatory Reform Act. The 4R Act proposed to end route restrictions, normalize inter- and intrastate rates and taxation, shorten the merger process, neutralize anticompetitive rate bureaus, liberalize abandonments, and allow rates within flexible “zones of reasonableness.” Each of these measures either freed railroads to make their own internal corporate decisions or dislodged unnecessary government barriers.
Obsolete restrictions had prevented Northeastern and Midwestern rails from cutting operating costs, investing in their plant, or shedding unproductive lines. These reforms encouraged railroads to use their resources more effectively.

In the “rehabilitation” half of the 4R Act, the federal government supplied railroads, shippers, and communities with subsidies and loan guarantees. Congress infused Northeastern companies like Conrail with funds to fix their lines, yards, and stations. If a railroad sought to abandon a line, but an interested party proved the line’s “present or future public convenience and necessity,” the government would ensure that the community or shipper received a loan to subsidize otherwise unprofitable rail service. This ensured that essential service remained in place. The legislation also finalized Conrail and sold the Northeast Corridor to Amtrak. Each of these components modernized the U.S. transportation system and secured the rail industry’s future profitability. The 4R Act ensured that American railroads would meet the needs of the economy and human and natural environments of the 1970s.191

The White House and Congress were mindful of environmental regulations as they prepared the 4R Act in 1975 and January 1976. The Office of Management and Budget sent a memo to the White House reinforcing the notion that environmental impact statements under NEPA still applied to the ICC, the DOT, and all rail line abandonments

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and corporate mergers. The Senate Committee on Commerce urged rehabilitation projects under 4R to account for “such societal aspects as energy conservation and enhancement of the environment.” Section 809 of the 4R Act required the DOT to study ways to convert abandoned rights-of-way into recreation areas, linear parks, and green spaces. When the ICC determined a line’s “public convenience and necessity” under Title VIII of the act, it considered whether abandonment could require higher fuel consumption or new land use. When he signed the 4R Act, President Ford discussed how the law provided “energy efficient, ecologically compatible transportation services with greater efficiency, effectiveness and economy.” Deregulators like Ford associated reform with streamlined operations, less government with less fuel consumption, and railroading with environmentally appropriate transportation.192

The 4R Act removed the ICC from many rate change cases. For railroad surcharges to reflect actual costs rather than “value-of-service” prices, the 4R Act allowed rates within a zone of reasonableness. The law encouraged railroads to respond to changes in the market by experimenting with different rates. A railroad no longer needed ICC approval to modify rates within seven percent of marginal cost. The modest seven percent zone ensured that railroads could neither abuse shippers nor undercut competitors. However, if the ICC deemed that a rail held “market dominance” over shippers or a community, it could still adjudicate rate changes. While some railroads

enjoyed greater rate freedom under 4R, the ICC sometimes abused the market dominance stipulation to retain some of its ratemaking authority.\textsuperscript{193}

The 4R Act also reformed the ICC’s procedures for rail mergers, corporate consolidations (when a railroad restructured its rail network), anticompetitive rate bureaus, and abandonments. Reformers intended for mergers to trim the national surplus of lines. A merger of parallel lines would cut duplicate tracks and yards, while an end-to-end merger would better facilitate long-distance movement. The Senate Commerce Committee suggested that dismantling costs, labor rules, and the necessity of certain lines and yards precluded some of the savings from parallel and end-to-end mergers. Ultimately, easier mergers and restructuring did allow railroads to downsize their networks. Many urban yards proved expendable, as did tracks serving defunct mines, timber stands, quarries, and other extractive sites.\textsuperscript{194}

As with the “market dominance” rule on rates, the ICC invoked “public convenience and necessity” to prevent line abandonments. Since the 4R Act ensured loans when communities or shippers depended on rail service, the ICC was less willing to allow line abandonment than it had been after the 3R Act in 1974. The 4R Act had the aggregate effect of cutting the ICC abandonment caseload, reducing the commission’s overall lag time and backlog. Although the Ford Administration would have preferred to


remove more ICC authority, it accepted that the 4R Act deregulated the railroads as much as the federal government could stomach in 1976.195

To take advantage of the new liberalized regulatory regime, the railroads required a huge infusion of private and public investment. The DOT, the FRA, and the USRA compiled a list of rehabilitation projects to replace obsolete tracks and ties, eliminate steep grades and curves, renovate bridges and tunnels, improve clearances, and consolidate and re-lane yards and terminal facilities. Northeastern railroads had deferred critical maintenance projects for decades; the region’s tracks and yards desperately needed attention if they were to continue beyond the 1970s. Industry experts estimated that $7-9 billion might be enough to rationalize the nation’s excess rail system in the short term. When Northeastern and Midwestern governors met with the president in June 1975, they pled for money to rehabilitate their rail lines. The governors argued that states were better equipped than federal officials to determine which lines needed to remain open and deserved funding. Responding to this call for local authority, the 4R Act directed the DOT to distribute light-density line subsidies to state governments rather than to the railroads.196

Some of Congress’ initial proposals to fix Northeastern freight and passenger rail worried President Ford and his advisors. When he first introduced the loan guarantee package in March 1975, Ford expected the government would put only $2 billion on the

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line. By November, the House intended to contribute another $2.43 billion in subsidies for LDLs, well above the administration’s earlier plan. Adding $2.1 billion for Conrail and $1.36 billion for the Northeast Corridor, the House package totaled $7.89 billion, about $2.2 billion above the adjusted White House estimate. A version of the bill in December added yet another $1 billion for the Northeast Corridor. In the fragile economy of the mid 1970s, President Ford resisted spending billions and billions more on the railroads. Ford recognized the desperate need for railroad revitalization in the Northeast, but stuck to his small-government guns and threatened to veto the bill. By January 1976, Congress and the White House reached a palatable compromise of $6.4 billion. The final 4R Act included $1.75 billion for Amtrak to acquire and upgrade the Northeast Corridor, $360 million for communities and states to subsidize LDL operations, and even $25 million for the DOT to convert “historical and architecturally significant” rail stations into intermodal facilities.

Staggers: Moving Beyond 4R

The 4R Act gave the railroads the tools to use their routes more efficiently and abandon operations that did not earn money. It also provided necessary funds to upgrade essential lines, invigorate Conrail, and transfer the Northeast Corridor passenger route to Amtrak. Shortly after President Ford signed the 4R Act, the DOT estimated that the rail

industry needed to spend a staggering $100 billion over the next ten years to rehabilitate, modernize, and maintain its network. Governments could not afford to foot this bill; most investment would come from private sources. Saunders writes, “By trying to make sure no money was wasted, 4R loans were not getting much done at all.” The Ford Administration weakened the loan package, and railroads did not rationalize their systems quickly enough to cut costs. Ben Biaggini of the Southern Pacific complained that the seven percent zone of reasonableness was too small. Railroads wanted to float their rates within a 20 percent “yo-yo,” Biaggini said. During the first year under 4R, rate flexibility generated only a few million dollars for the industry. The 4R reforms appeared less effective than proponents had hoped.198

As a Nixon Administration official had noted in 1972, “Railroads have operated under government cartel regulations since 1887. Small permissive changes are unlikely to produce much change in habits of long standing.” Market-responsive pricing still seemed unnatural. By 1977, the railroads had filed very few rate changes under the 4R reforms. Reluctant to accept a smaller regulatory role, the ICC defined “market dominance” and “public convenience and necessity” too strictly to grant the railroads much leeway on rates or line abandonments. In actuality, truck, barge, and air competition precluded rail dominance all but a few markets. In 1978, Conrail reported at a House appropriations hearing that abandoning 854 miles of line would save the corporation a paltry $20 million. Often the cost to remove tracks and ties outweighed the savings.

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198 Senate, Subcommittee of the COA, DOT and RAA for FY 1977, Section 3, 94th Cong., 2nd sess., 1976, 986; Saunders, Main Lines, 170-73.
John M. Sullivan, the Federal Rail Administrator, urged Congress to wait patiently for the 4R reforms to take hold. He faulted the ICC for its unwillingness to cede authority and adapt to lighter regulations. President Carter’s second DOT secretary, Neil Goldschmidt, reported that the railroads had not adopted ratemaking or abandonment freedoms under the 4R Act. Mergers had saved some costs and improved service, but did not revive the rails as Bill Coleman had suggested. The railroads had the legal tools to cut expenses and increase earnings, yet few used their new abilities. Conrail and Amtrak spent government-backed loans to rehabilitate their routes, but unproductive lines and yards remained open within Conrail and elsewhere. The 4R Act had not immediately shattered the status quo among the railroads or the ICC.\footnote{Memo, Alan McAdams to Herb Stein and Marina Whitman, 20 Jun. 1972 (5), GRFL; MacAvoy and Snow, eds., \textit{Railroad Revitalization and Regulatory Reform}, 223, 227; House, Subcommittee on DOT and RAA of the COA, \textit{DOT and RAA for 1979, Section 3}, 95th Cong., 2nd sess., 1978, 69-70, 514, 562-63; U.S. Department of Energy, \textit{Railroad Deregulation: Impact on Coal}, Office of Coal, Nuclear, Electric and Alternate Fuels, prepared by Ercan Tukenmez of the Energy Information Administration (Washington, DC: U.S. GAO, Aug. 1983), 5; AEI, \textit{Proposals for Railroad Regulatory Reform}, 5-6; House, Subcommittee on DOT and RAA of the COA, \textit{DOT and RAA for 1981, Section 3}, 96th Cong., 2nd sess., 1980, 118-19.}

As the 1970s drew to a close, the U.S. economic and political atmosphere called for new reforms to extend beyond the 4R Act. Stagflation, recession, and a second oil shock plagued the national economy and the Carter Administration. Thanks to Carter’s reforms, committed deregulators led the ICC and other regulatory agencies by 1980. The president and his bureaucrats sought to grant railroads greater ratemaking freedom and the ability to drop unprofitable service altogether. Like his immediate predecessors, Carter battled an ongoing energy crunch. A smaller, denser network would increase rail’s efficiency, save precious fuel, and make land available for redevelopment. The Carter Administration also concluded that strong deregulatory reforms could revive Conrail,
which was making slow progress with the ICC to set flexible rates and purge unremunerative lines. Deregulation applied to all rail companies, but many of its elements catered directly to Conrail, the linchpin of freight transportation in the Northeast. The Carter White House feared that the “failure to deregulate may well be the death knell for Conrail.”

The Carter Administration sent a strong deregulatory bill to Congress in 1979. Senator Howard W. Cannon, a Democrat from Nevada, introduced S. 796, which proposed to phase out maximum rate controls and rate bureau antitrust immunity. Over several years, railroads would be able to set higher rates. So long as a rate covered unavoidable costs and did not undercut competitors, the ICC could not intervene. Reversing the Reed-Bullwinkle Act of 1948, which had allowed railroad companies to collude and request comparable rate increases, the ICC would no longer oversee the cartel-like rate bureaus. The bill still permitted the ICC to review railroads that truly held shippers captive and enjoyed “market dominance.” To meet the modified definition of “dominance,” a shipper had to prove that no other rail lines or freight modes reached its area or served its product. Since relatively few rail carriers dominated their markets, the ICC’s day-to-day role diminished significantly. These amendments fixed the weaknesses of the 4R Act. The Staggers Rail Act of 1980, named after Harley O. Staggers, the powerful chairman of the Senate Commerce Committee, finally modernized federal rules and acknowledged that railroads no longer posed the threat of monopoly. No rate could

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abuse captive shippers or undersell competitors at cutthroat levels, but all others could
float freely.\textsuperscript{201}

The Staggers Act dramatically altered the railroads’ business with one of their
most important commodities: coal. From 1970 to 1980, coal shipments in unit trains had
grown from 29 percent to almost 54 percent. Shippers and railroads learned to maximize
the efficiency of hauling bulk commodities like coal in mile-long trains carrying the same
item. To encourage this development in the freight market, the Staggers Act allowed
fixed service contracts between shippers and their carriers. By agreeing upon long-term
rates, coal companies provided frequent and dependable shipments and railroads planned
their car movements well in advance. The regulatory change allowed for normal
customer-supplier relationships and more efficient use of rail resources. Competition
from new slurry pipelines also prevented railroads from overcharging their customers and
encouraged them to improve service.\textsuperscript{202}

After the Staggers Act, government regulated the railroads only when the market
failed to meet a certain need. Shippers and carriers, not a federal agency, determined the
vast majority of rates. New reforms allowed railroads to enter into agreements not only
with shippers, but also with truck and barge companies. By encouraging intermodal
cooperation, the Staggers Act improved U.S. transportation logistics. More efficient
movement of goods and people meant fewer delays, less fuel consumption, fewer

\textsuperscript{201} House, Subcommittee on DOT and RAA of the COA, \textit{DOT and RAA for 1981, Section 3}, 96\textsuperscript{th}
Cong., 2\textsuperscript{nd} sess., 1980, 78-79; AEI, \textit{Proposals for Railroad Regulatory Reform}, 7-10; Saunders, \textit{Main Lines},
177; Keeler, \textit{Railroads, Freight, and Public Policy}, 99, 101; Felix Chin, \textit{Railroad Regulation and
Deregulation Controversy: A Selected Bibliography}, Public Administration Series: Bibliography

\textsuperscript{202} DOE, \textit{Railroad Deregulation}, 6-8; Solomon and Yough, \textit{Coal Trains}, 116.
particulate emissions, and higher rates of return on investment. No longer dependent on the ICC to approve their every decision, railroads became more competitive and adaptive to a changing economy.\textsuperscript{203}

Railroads began to cope with the decrease in heavy manufacturing and the shifts of businesses and people toward the South and West. The federal government ensured that railroads could discontinue running unprofitable lines, and communities took solace in the guarantee that their service could continue if necessary. Railroads did not abandon lines and yards haphazardly or without reason, as some politicians and businesses had feared.\textsuperscript{204} Instead, abandonments began to turn a creaky 19\textsuperscript{th}-century infrastructure into a network fit for the 21\textsuperscript{st} century.

“New challenges, huge opportunities”

U.S. railroads rebounded after the Staggers Act. Companies had experimented with logistical developments like unit trains, containers, and intermodalism in the 1970s, but these efficiencies really took hold during the 1980s. To take advantage of their inherent strengths, the rails carried freight almost exclusively and left passengers to either Amtrak or other modes. Fuel-efficient intermodal rail traffic more than quadrupled in the 25 years after Staggers. Automatic classification yards reduced transfer times, equipment maintenance improved, and computers centralized traffic management. With higher income and productivity and new cost cutting freedoms, the railroads could finally afford to reinvest in their physical plant on a massive scale. To trim unnecessary expenses,


\textsuperscript{204} AEI, \textit{Proposals for Railroad Regulatory Reform}, 34-36.

As one industry expert reflected in 2005, the Staggers Act created “new challenges, huge opportunities.” Railroad companies and analysts continue to hail deregulation as the savior of the industry. Since Staggers, more than three quarters of all rail freight traveled without maximum rate regulation. Inflation-adjusted rates fell 54 percent by 2007, while productivity and delivery speed increased. Some coal rates rose, but rates for grain and other commodities sank. After stripping the ICC of most regulatory authority, Congress finally decided to fold the antiquated agency in 1994. President Bill Clinton, a proponent of transportation deregulation, signed a law to replace the ICC with the Surface Transportation Board (STB). Through the STB, captured shippers may challenge railroad rates that exceed 180 percent of variable costs. Since the freight rate market permits relatively few onerous and unfair rates, the STB has a much smaller function than its predecessor. By placing the STB within the DOT, the 1994 law shifted the last remnants of federal railroad regulation from an independent agency to the executive branch.\footnote{AAR, Overview of America’s Freight Railroads, May 2008, 4; Winston, Last Exit, 29; Derthick and Quirk, The Politics of Deregulation, 63; Rose, Seely, and Barrett, The Best Transportation System in the World, 213; William C. Vantuono, “New challenges, huge opportunities: Twenty-five years after Staggers,” Railway Age 206, no. 7 (Jul. 2005): 22; Vantuono, “Staggers Act ‘can still be trusted,’” Railway Age 211, no. 12 (Dec. 2010): 6; Norfolk Southern Corporation, Portrait 20 (Norfolk: Norfolk Southern Corp., 2002), vi, 34.}
Between 1975 and 1994, corporate mergers whittled the number of Class I railroads from 73 to just ten. Competition from within and without the railroad industry prevented new big carriers from emerging. Small carriers thrived under the post-Staggers regime and balanced large companies like Conrail, Union Pacific, and Norfolk Southern. In the first 14 years after Staggers, the number of sub-Class I carriers more than doubled from 212 to 550. Short lines continued to cater to the needs of local shippers and feed into the main lines of major carriers. Analyst Clifford Winston suggests that even in the early 2010s, the railroad industry was still feeling the “short-run effects” of deregulation. For the freight industry to maximize it spatial distribution, Winston predicts that eventually only two major transcontinental Class I carriers will remain. As of 2011, the U.S. railroad system consisted of over 550 railroad companies (including just seven Class I carriers), employed over 187,000 workers, and used 1.35 million freight cars.  

Freight rail also reduced its relative burden on the environment in the post-Staggers regime. In 1980, railroads hauled one ton of freight 235 miles per gallon of fuel. The average more than doubled to 484 miles per gallon by 2010. The industry achieved these savings by carrying more freight per railcar, switching to quiet and energy-efficient locomotives, and boosting logistical efficiency on tracks and in yards. By installing specialized equipment to comply with a series of strict but reasonable EPA emissions standards, rail companies significantly cut noise and exhaust pollution. Railroads’ impact on the land also waned as companies pulled up excess tracks. Under old regulations, rail

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companies never could have afforded such investments. During the first decade of the 21st century, the industry touted its environmental responsibility and compatibility with both human and natural landscapes. Each of the major freight carriers began to offer an online calculator to show how shippers could slash emissions and fuel consumption by switching from trucking to rail. Ever since energy and environment became national concerns in the 1960s and 1970s, freight rail’s high efficiency and low impact have appealed to policymakers, shippers, and informed citizens alike.²⁰⁸

The legacy of the federal government’s two rail corporations, Amtrak and Conrail, varied tremendously. Conrail’s enjoyed its first profitable quarter in 1979, after the 4R Act and before Staggers. President Carter’s DOT secretary, Neil Goldschmidt, testified to Congress that only a strong deregulatory package would allow Conrail and other eastern rail carriers to survive. Within just a few years of passage, the 4R and Staggers rehabilitation projects, ratemaking reforms, and new abandonment rules resuscitated Northeastern freight and ensured Conrail’s long-term viability. During his first year in office, President Ronald Reagan signed the Northeast Rail Service Act of 1981, which required the secretary of transportation to sell all government shares of Conrail. The DOT oversaw Conrail’s public sale on 3 March 1987 in what was then the largest initial public offering in U.S. history. Just ten years later, the Norfolk Southern (NS) and CSX rail corporations bought and split Conrail properties 58-42 percent.

Former secretary Coleman argues in his memoir that the division of Conrail resembled

his “controlled transfer” plan from 1975-76. A strong economy, regulatory reform, and sensible abandonment policies, none of which existed before Coleman’s tenure, proved critical to Conrail’s success. In this favorable environment, Conrail thrived where so many private companies had derailed.  

Unlike Conrail, Amtrak never profited or became self-sustaining. Since creating Amtrak in 1971, Congress has appropriated over $35 billion to the semi-private passenger rail company. Amtrak’s proponents argued that its benefit to the American public—including natural and urban environments—warranted generous federal subsidies. Such a claim might be true if demand for passenger service were as high and steady across Amtrak’s national network as in the Northeast Corridor. Passenger rail’s “age of limits” never really ended. As a presidential candidate and once in office, Barack Obama championed high-speed rail (HSR) as viable tools for modernizing U.S. transportation, including Amtrak. When the country crashed into a recession even deeper than that of Gerald Ford’s 1970s, HSR again became a dream. Political opposition, especially from fiscal conservatives and legislators tied to the automobile and petroleum industries, stalled most HSR projects by the late 2000s.  

Many Americans and policymakers support passenger rail in theory, but funding remains elusive. Envious of HSR successes in Western Europe and Japan, some advocates contend that passenger rail is due for a comeback. Historian John Stilgoe 

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acknowledges that the “not in my backyard” (NIMBY) mentality persists, “but in the end the ‘greater public good’ may demand rail restoration.” Urban scholar Edward Glaeser notes how “community opposition makes it impossible to straighten a route, even if the economic and environmental advantages of faster rail service outweigh the cost.” Yet NIMBY sentiments are only the first hurdles. Without demand, trains will never leave the station; without sustained funds and ridership, trains will cease to run. Voting with their wallets, Americans long ago elected to drive automobiles and ride in airplanes. So long as private and public support for Amtrak and passenger trains remains limited, most Americans may never need or seek such alternatives.\textsuperscript{211}

Many lines remain worn and uneven, but the U.S. rail system as a whole is far stronger than before Staggers. Along the way, thousands of miles of line and thousands of acres of rail yards became available for new uses. Preservationists and real estate developers ensured that culturally valuable rail stations and buildings endured either as transportation hubs or for other uses. Yet as any explorer of the American city and countryside knows well, many rail structures lie derelict, ridden with weeds, and coated with grime and graffiti. This mix—old and new, crumbling and sleek, steam and diesel—enriches the heritage of American railroading. The material culture of the rails has left a complex mark on the country’s human and natural environments. The social and economic changes of the 1960s and 1970s guaranteed that the railroads’ story would continue to unfold and that rail’s place in the American landscape endures.

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