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Does the Man Make the Railroad or Does the Railroad Make the Man? The Pennsylvania Railroad's Connections to Professional Management and the Failure of the Penn Central, 1920-1970

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During the 1910s and 1920s, Pennsylvania Railroad (PRR) executives experienced a managerial crisis, finding it increasingly difficult to hire, train, and promote their replacements. Throughout the nineteenth century, the expanding PRR System offered individuals trained in engineering the opportunity for rapid advancement. After 1900, however, jobs in emerging industries such as automobiles and chemicals offered higher pay and greater chance for promotion. Interstate Commerce Commission rates did not permit sufficiently remunerative salaries. Internal factors were more important, however, as PRR senior executives debated the relative importance for new management hires of a college degree or on-the-job experience. A 1920 decentralization of PRR's management exacerbated this executive crisis, as did PRR managers' growing perception that public demands for greater efficiency constrained salary flexibility. The managers who came of age during this period were poorly prepared to cope with the PRR's decline during the late 1950s and early 1960s when they became senior executives.

Little more than a hundred years ago, the individuals who served as the presidents of the Pennsylvania Railroad (PRR) were household names to many, heroes to some, and hated enemies to others. They and their executives managed the nation's largest railroad and one of its largest corporations. Few people understood precisely how these men had become president, however, or, for that matter, how the PRR developed its own executives. During much of the nineteenth century, the PRR expanded steadily, affording individuals trained in civil engineering with many opportunities for rapid advancement. Likewise, senior executives could use the railroad's manifold construction projects to train and evaluate their junior colleagues, grooming them for more advanced positions. During the early decades of the twentieth century, however, both the PRR and its managerial

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culture changed substantially. A dearth of construction projects and the general decline of the railroad industry relative to other sectors of the economy began to interfere with the PRR's ability to identify and promote engineering and managerial talent. With the company no longer expanding at the heady pace of the mid- to late 1800s, middle managers suspected that the possibility of rapid and significant career advancement was effectively nil. The PRR's top executives became increasingly aware that the situation was crippling employee morale. At the same time, the growing influence of the regulatory state–especially as reflected in the 1906 Hepburn Act and the Transportation Act of 1920–constrained the ability of PRR executives to offer salaries that were comparable to those in high-growth industries. In response, PRR officials sensed that the PRR would have to change fundamentally the way in which it hired, trained, and promoted its managers. Despite alterations in its management recruiting and training practices, however, the PRR suffered from a steady depletion of its pool of managerial talent, a situation that contributed to the company's declining fortunes after World War II.

"The Company's executive officers have been mostly from Engineers in the past, and not to the detriment of the Company," wrote third vice-president Samuel Rea in 1908, "because the Engineer's training, which keeps him in touch with the Operating Department, its finances, the traffic, and in fact all the departments if he is observant and studious, if properly utilized and broadened in the field of finance and general corporate work, is unquestionably best fitted for executive railroad work."[1] Four years later, W. H. Myers, the fifth vice-president, in charge of purchasing, real estate, and insurance, further emphasized the hands-on approach to executive training, noting, "most men in actual life prefer to learn from observation rather than from books, and I believe the impression in the first case is the more lasting."[2]

For more than sixty years, the PRR had offered opportunity for advancement to young men with an aptitude for engineering. In 1922, Samuel Rea, by then the company's president, observed, "As to the best lines of

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[1] Samuel Rea to James McCrea, 26 May 1908, R.G. 1810, Pennsylvania Railroad Collection at the Hagley Museum and Library, Wilmington, Del. [hereafter, HML], box 609, folder 22.

[2] W. H. Myers to McCrea, 6 Sept. 1912, Penn Central Collection at the Pennsylvania Historical and Museum Commission, State Library of Pennsylvania, Harrisburg [hereafter, PHMC], Cassatt/McCrea Papers, box 51 (12-1812), folder 68/1.

training the statistics leave no doubt that they are civil and mechanical engineering, particularly the former," and noted that, out of the 81 executives in the Operating Department (which, by itself, comprised almost half of "the 163 principal officers and directors of the Pennsylvania System"), 38 were civil engineers, 11 were mechanical engineers, and one was an electrical engineer.[3] The PRR, in turn, used its many construction projects to evaluate legions of prospective executives, selecting only the best for advancement. As Rea suggested, once these individuals had reached the upper echelons of authority, they possessed a thorough knowledge of virtually every facet of the PRR's operations.

By the early twentieth century, most senior executives continued to rely on training that they had received twenty or more years earlier. Individuals such as William Wallace Atterbury, who served as the vice-president in charge of operations from 1911 until 1925, when the board elevated him to the presidency, typified the older engineering ethos. During the 1880s, Atterbury had risen through the ranks of the PRR's "special apprentice" program—a set of courses that marked the beginning of the PRR's shift away from informal training and toward a system of formalized education and advancement.[4]

By the time Atterbury began his special apprenticeship, the influence of the master mechanic had largely disappeared from the American railroad industry. Deemed inefficient because they could not see the totality of the PRR's operations from the narrow confines of their shop windows, master mechanics had skills that provided them with independence and an autonomy that threatened managerial prerogatives.[5] While threatening, that mechanical knowledge was useful, perhaps essential, to anyone who claimed executive authority over the PRR's multifaceted, yet still largely engineering-based, operations. There was thus a transition phase, during which many prospective PRR executives gained considerable mechanical experience through temporary service as special apprentices—perhaps at the Altoona Shops, perhaps within the walls of the Test Department (which the company intended to serve as "a training school for subordinate officers"), and perhaps at other locations along the system.[6] These special apprentices and Test Department employees were in, but not of, the Altoona Works; their time there was limited to a few months, before they left that world behind forever. The PRR made use of special apprentice positions in the Maintenance of Equipment, Maintenance of Way and Structures, and Telegraph and Signals departments, with the Transportation Department the last to establish an apprentice program. Each of these positions was restricted to inductees with

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[3] *Railway Age* 72 (22 April 1922): 985.
[4] George H. Burgess and Miles C. Kennedy, *Centennial History of the Pennsylvania Railroad Company, 1846-1946* (Philadelphia, Pa., 1949), 589.
[5] Steven W. Usselman, *Regulating Railroad Innovation: Business, Technology, and Politics in America, 1840-1920* (New York, 2002), 70-75, 187-88.
[6] "Departments of Chemical and Physical Tests," Report to Interstate Commerce Commission, 1914, HML, box 661, folder 7, 10.

a college or technical school education. They initially trained in a single department, but their mentors selected the most talented to work in cooperation with other departments.[7]

By the early twentieth century, however, the instruction had become much broader. The ranks of college and technical school graduates still provided "cadets," but a select few who demonstrated exemplary ability could be promoted to the special apprentice class. They spent six months each in the Erecting Shop and the Machine Shop, followed by eight months evenly divided between the Air Brake Shop, the Blacksmith Shop, the Iron Foundry, and the Boiler Shop. They devoted another six months to the Car Shop, four to the Roundhouse, then three months firing locomotives on the PRR, two months in the shop clerk's office, two more in the motive power clerk's office, three in the Drawing Room, and a final five-month stint in the Test Department. Their reward was a wage that increased from less than $.17 an hour in the first year to more than $.24 an hour in their fourth–plus the certitude of promotion to inspector (at a salary of $90 a month) upon satisfactory completion of the apprenticeship program. From there, it was a steady upward progression to assistant road foreman (or assistant master mechanic), then assistant engineer, master mechanic, and superintendent of motive power. "From this point on," Atterbury emphasized, "there is no limit in the service beyond which a man can go, other than of his ability."[8]

Until the late 1800s, when both the PRR and the entire American railroad network were engaged in rapid expansion, construction projects greatly facilitated the selection of young executive talent, managers who could demonstrate a solid grasp of engineering and budgetary matters, combined with leadership ability and a rigorous work ethic. As new construction projects became less frequent, as efficiency became the watchword for the PRR's operations, and as increased bureaucratization created a large class of mid-level managers with exceedingly limited prospects for upward advancement, the company faced a crisis within its executive ranks. Much of the problem stemmed from the system and the order that PRR executives had implemented during the late nineteenth and early twentieth century in order to cope with traffic congestion and inter-firm competition. The operation of such a complex system required a growing number of competent middle managers. Yet, as the managerial corps grew, the likelihood that a particular junior executive might rise to a position of real power and authority correspondingly declined significantly. By 1907, as a financial panic sharply

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[7] Association of Transportation Officers Report, 5 May 1925, HML, box 408, folder 9.

[8] William Wallace Atterbury to R. T. Crane, 3 Sept. 1909 (quote), HML, Bbx 609, folder 14. There were numerous variations in the special apprentice program, both in length and in assignment of duties; see: "Pennsylvania Railroad System: Special Apprentice Schedule—Altoona Works," 13 Jan. 1923; J. H. Yoder to J. T. Wallis, 2 Feb. 1921; Yoder to Wallis, 16 Feb. 1921; Wallis to H. H. Maxfield, 23 Oct. 1920; Wallis to Elisha Lee, 1 Dec. 1920; all in HML, box 489, folder 15.

curtailed the PRR's business prospects, president James McCrea emphasized the need "To gradually reduce the number of those who might be called cadets [entry-level managers] and who, it would seem to me, are so much in excess of the vacancies that occur as to be very discouraging not only to those now in the service, but who may desire to enter it later on."[9]

Indeed, many junior executives perceived the lack of advancement opportunities as unfair and intensely demoralizing. By 1912, the members of the PRR's Committee of the Board in Charge of Organization (also referred to as the Personnel Committee) recommended that the PRR identify the most promising young men, groom them for senior positions, and allow the remainder to fall by the wayside. The committee established rates for "yearly eliminations" that ranged from a low of 5.2 percent for trainmasters to a high of 28.1 percent for assistant supervisors. Inasmuch as the PRR was no longer growing at its former rapid rate, one executive noted, "there must be made artificially additional chances for promotions: in other words, eliminations in all grades of the service." This endeavor to "eliminate the men who are least fit to perform their duties," the committee's report noted in a rather apologetic but convoluted and disingenuous manner, "does not mean necessarily that they are unfit to perform these duties, but merely that among all the officers who are fit they are *less fit* than their fellows."[10]

By the beginning of the twentieth century, an additional problem had emerged. As the railroad industry had ceased to expand and, as earnings stagnated, PRR could no longer offer its junior executives salaries that were competitive with such emerging "high-tech" industries as chemicals, electrical equipment, and automobiles. "It is impossible," wrote vice-president Rea in 1912, to give to our men the same rewards that they would obtain in the choice positions in industrial establishments, although the general working conditions of the railway service will always have a tendency to make it more attractive."[11]

Rea perhaps placed too high a value on the guaranteed employment, dependable pension, free travel, and other perquisites associated with railroad management. It was, even under the best of conditions, a difficult,

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[9] As "cadets," McCrea indicated "those below the rank of Division or Assistant Engineers, which, of course, includes supervisors, Assistant Supervisors, Assistant Road Foremen of Engines, Apprentices, and other young men in the Motive Power Department; likewise Trainmasters, Assistant Trainmasters, Train Dispatchers, and other young men in the Transportation Department." McCrea to Atterbury, 24 Oct. 1907, PHMC, Rea Papers, box 31 (12-1861), folder 49/38.

[10] The PRR was not entirely cold-hearted, and acknowledged that "those eliminated . . . should not be dropped entirely from the service—in other words—turned out into the world after they have been a number of years in the railroad's employ, and that certain provisions should be made for them." S. C. Long to Atterbury, 31 Oct. 1912, PHMC, Rea Papers, box 31 (12-1861), folder 49/38; emphasis in the original.

[11] Rea to Atterbury, 31 Dec. 1912, PHMC, Rea Papers, box 31 (12-1861), folder 49/38.

exhausting occupation that demanded absolute adherence to PRR policies and procedures, mandated round-the-clock availability, and rarely allowed for a vacation or, indeed, any time off. Many entry-level executives were aware of the personal sacrifice associated with a railroad career, and judged, correctly, that other industries offered better chances for career advancement.

The PRR's status as the "Standard Railroad of the World" also worked against it, inasmuch as any executive who spent a few years in company service was certain to find an advanced position on some other, lesser railroad. The PRR should "select good men and retain them," Rea complained in 1908, "rather than to educate them for other systems."[12] Thus, even within the railroad industry, the PRR was losing talented managers to other carriers.

By the 1920s, the drain of managerial talent to other industries had become even more acute. T. W. Demarest, the PRR's General Superintendent of Motive Power, was blunter in his assessment of the situation. "There is no quick opportunity for advancement based on promotion to a desirable supervisory position," he observed in 1923, "and there is no plan for giving them [entry-level managers] a more generous experience and on the basis of ability displayed locating them in the department best suited to them." Consequently, Demarest noted, "The slow promotion is most restrictive in deadening the man and unless adequate outlets can be provided, the best men go stale or leave the service."[13]

In 1942, when the influential economist Joseph A. Schumpeter published his seminal *Capitalism, Socialism, and Democracy*, he wondered if the maturation of entrepreneurial firms into large bureaucratic organizations enhanced or retarded innovation. Schumpeter observed that stable bureaucracies such as the PRR's offered enormous financial and human resources in support of innovation, but that they also created a climate of security, in which executives sought to minimize risk rather than to maximize potential rewards.[14] Economic historian Leland H. Jenks seconded Schumpeter's assertions when he "considered whether policy formation by group action is an obstacle to innovation." Jenks pointed out the necessity of "cultivating social techniques for facilitating innovations" and insisted that large bureaucratic corporations, if they were to remain viable, would face the task of "developing personalities whose practical imagination and responsibility for decision will be stimulated rather than frustrated by policy-determining groups."[15] As leaders of one of the nation's first big businesses, PRR executives had longstanding experience with bureaucratic "policy-determining groups," dating back to the 1850s. Yet, the comments of Rea and

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[12] Rea to McCrea, 26 May 1908, HML, box 609, folder 22.
[13] T. W. Demarest to W. W. Burrell, 30 Aug. 1923, HML, box 1020, folder 18.
[14] Joseph A. Schumpeter, *Capitalism, Socialism, and Democracy* (New York, 1942).
[15] Leland H. Jenks, "Railroads as an Economic Force in American Development," *Journal of Economic History* 4 (May 1944): 1-20, quotation at pp. 19-20.

Demarest indicate that the role of regulatory policy in further regularizing the PRR's operations had reduced the attractiveness of railroading to the young men who were just beginning their business careers, and constrained the initiative of those who already worked for the PRR.

Even though workers and managers alike continued to place a high value on knowledge acquired informally on the job, senior executives were gradually losing their aversion to recruits who possessed academic, rather than practical, experience. By the early twentieth century, the Operating Department actually preferred "young men from college without practical experience in location and construction work."[16] Atterbury, who was the beneficiary of a top-notch formal education, insisted that the recruitment of college-educated employees would improve the overall caliber of the PRR's work force. Referring to the all-important Transportation Department, Atterbury noted in 1909, "Heretofore this particular branch of the service has been rather confined to the practical men, and because of their lack of education their advance has been slow, their representation in the higher offices of the service thus being limited." Atterbury noted approvingly that the PRR was "now introducing some college men into the ranks with the hope that the competition which will be bound to follow, and the incentive to the uneducated men to educate or fit themselves for higher position, will bring about a decided improvement in this branch of the service."[17]

By the end of the first decade of the twentieth century, the willingness of Atterbury and other senior executives to hire and promote professionally trained managers created two problems. First, the PRR, like all other railroads, retained a long tradition of advancement through seniority. College degrees, special apprentice programs, and other types of advanced training challenged that tradition, because they allowed younger employees to leapfrog over individuals whose status rested on the longevity of their experience. "We do not hesitate at all if we have an especially bright man to deal with," Atterbury noted, "to advance him over his fellows, to jump him in a class, to transfer him from one department to another, or in any other way alter the program in such a manner as to present a living example to our employees that ability is and will be recognized wherever found."[18]

The second problem involved an ongoing debate among senior executives, regarding the extent to which systematization should dictate executive training. Traditionally, the railroad industry placed a high value on loyalty, discipline, and absolute adherence to the traditions and procedures that the company had developed over more than half a century. "While it is our desire to get the younger men ahead," Rea emphasized in 1912, "to be sure of them they must have sufficient discipline in the subordinate ranks to give them the

[16] Ibid., 20.

[17] Atterbury to R. T. Crane, 3 Sept. 1909, HML, box 137 (Education of Railroad Employees, 1906-1912).

[18] Ibid.

necessary experience and loyalty to our traditions."[19] Such discipline and respect for tradition, however, tended to stifle individual initiative and thus made it far more difficult to identify promising managerial talent. The problem with the PRR's "present form of organization," he noted in 1908, was "the practice of making it conform from time to time to the personnel rather than by adopting a proper basis."[20] In other words, the PRR had molded its organization to fit its personnel, rather than molding its personnel to fit the organization.

Other senior PRR executives disagreed with Rea's emphasis on systematization, however. Even as Rea linked the necessity of retaining qualified personnel to the importance of reestablishing the primacy of the PRR's organization chart, President McCrea was submitting similar concerns to the Personnel Committee. Beginning in 1912, the group spent the better part of the next five years formulating suggestions. Assistant to the general manager Elisha Lee, a member of the committee, insisted that the PRR's growing emphasis on standardization and conformity risked destroying the individual initiative and flexibility essential to an adaptive corporation. Lee recognized the importance of "Getting younger men into positions of responsibility before their individuality has been eliminated by long habits of discipline and before age takes out that elasticity and energy which are the result of youth."[21]

Along with so many aspects of the PRR's operations, public policy contributed to the reduced attractiveness of a railroad career. World War I created massive traffic congestion that in turn induced Congress to create the United States Railroad Administration, an agency that federalized the railroad industry between December 1917 and March 1920. The Transportation Act of 1920 returned the railroads to private control, while serving clear notice to PRR executives that the Interstate Commerce Commission would henceforth exercise far greater control over the railroads and their expenditures. In 1910, in the Eastern Rate Cases, shippers' attorney Louis D. Brandeis had insisted that the railroad industry could become vastly more efficient, and so keep rates low and wages high, while providing a rate of return sufficiently high to attract investment capital. A decade later, the Transportation Act of 1920 codified Brandeis's views into law, and brought railroad expenditures, including executive salaries, under greater public scrutiny than ever before.[22]

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[19] Rea to Atterbury, 31 Dec. 1912, PHMC, Rea Papers, box 31 (12-1861), folder 49/38.

[20] Rea to McCrea, 26 May 1908, HML, box 609, folder 22.

[21] Lee et al., to Simon Cameron Long, 9 April 1912, PHMC, Rea Papers, box 31 (12-1861), folder 49/38.

[22] K. Austin Kerr, *American Railroad Politics, 1914-1920: Rates, Wages and Efficiency* (Pittsburgh, Pa., 1968); Gabriel Kolko, *Railroads and Regulation, 1877-1916* (Princeton, N.J., 1965) Albro Martin, *Enterprise Denied: Origins of the*

It would be inaccurate to suggest that the Transportation Act of 1920 dictated to PRR managers the development of hiring, training, and promotion policies. Those executives were nonetheless concerned that salaries large enough to attract the most promising young talent would also attract the disapproval of Congress, ICC officials, and public opinion. In 1919 and 1920, senior PRR executives prepared to undertake a massive reorganization, one that would divide the railroad into four semi-autonomous regions and increase the demand for qualified managers. As the members of the Personnel Committee discussed the details of the PRR's proposed reorganization, considerable debate ensued over the proper level of executive compensation. Board member Percival Roberts, Jr., a former steel company executive, insisted that the new regional vice-presidents and other senior regional executives should receive higher salaries and additional job security, in order to prevent the loss of managerial talent to other industries. Traffic vice-president George Dallas Dixon also felt strongly about this subject, and suggested that

> . . . the officers now in the service, both east and west, be taken care of in a satisfactory way . . . as I feel that we must recognize the men who have stood by our Company and they should be provided for in a compensatory way equal to men of similar responsibility in other railroads or industries, and also meet the imperative need of attracting young men to the service.[23]

President Rea agreed, but thought that the PRR should limit pay increases to a few top executives. Clarence B. Heiserman, the general counsel for Lines West, urged restraint, however. The new organization, he noted, "is somewhat top-heavy because of the many officers provided thereby. This is particularly true because of the likelihood in the future of having railroad operating expenses more carefully scrutinized and regulated by the Interstate Commerce Commission." Control over executive salaries, he continued, would be "very important for the future well-being and standing, in the eyes of the public, of railroad companies.[24]

The board of directors, whether motivated by Heiserman's predictions of increased regulatory and public scrutiny or by a desire to reduce expenses, dismissed Roberts's plea for higher executive salaries. Within a very few years, however, others associated with the PRR echoed his views, and indicated that Roberts was largely correct in his assertion that low compensation levels would drain the company of managerial talent. "From past experience, it seems to me that some steps should be taken to interest young College men in railroad work," W. H. Scriven, the PRR's general agent

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Decline of American Railroads, 1897-1917 (New York, 1971); Richard Saunders, Jr., *Merging Lines: American Railroads, 1900-1970* (DeKalb, Ill., 2001).

[23] George Dallas Dixon to Rea, 2 Feb. 1920, PHMC, Rea Papers, box 31 (12-1861), folder 49/38.

[24] Rea to Effingham B. Morris, 16 Feb. 1920; Heiserman to Rea, 9 Feb. 1920 (quote); both in PHMC, Rea Papers, box 31 (12-1861), folder 49/38.

and superintendent at Chicago, noted in 1923, ". . . as we find most of them are rather loathe, for some reason, to enter our employment, or even to remain for any considerable period. This lack of interest seems to be principally due to the salaries, as I find that the young college graduate is generally offered salaries in other lines of endeavor that are generally 50% higher."[25]

"I would not advise young men whose principal conception of success was to become rich or quickly to obtain a very large salary, to enter the railroad business," Rea observed in 1922. "The period of adventure and pioneering in railroad enterprise has now passed, and the firm establishment of public regulation as a definite policy tends to remove railroading almost wholly from the realm of speculative enterprise." The ICC-mandated stability of the railroad industry had its advantages, Rea noted, inasmuch as "railroading offers a more certain career than most branches of commerce or industry, with less likelihood of suffering through the mistakes or wrongs of others and also with somewhat less probability of gaining the very highest monetary return."[26] Rea was in effect admitting that such past executives and speculative entrepreneurs as J. Edgar Thomson and Tom Scott would no longer be able to find a place on the PRR. Thomson, Scott, and other nineteenth-century managers had enriched themselves, often at the expense of other PRR stockholders, but they had also provided vigorous and innovative leadership.

In 1924, when supervising agent O. S. Jones commented, "It has been the policy of the Pennsylvania Railroad for a great many years to make its own men," he aptly summarized the PRR's strategy of recruitment and promotion.[27] The declining image of the railroad industry after World War I compounded this insularity, contributing further to a situation that historian Walter Licht quite rightly describes as "inbreeding."[28] PRR president Martin Clement acknowledged that the poor reputation of the railroad industry during the 1920s had forced the company to recruit managers from the South and West, well outside the territory that it served. The economic catastrophe of the 1930s proved something of a blessing in this instance, however, because the PRR could "pretty well select and choose, and during that time . . . gathered up a lot of very able men," including substantial numbers of college graduates.[29]

By the time that President Clement made that comment, in 1948, the PRR had already begun a period of decline that led to a 1968 merger with the New York Central and to the bankruptcy of the Penn Central little more than two

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[25] W. H. Scriven to W. B. Wood, 21 Sept. 1923, HML, box 1020, folder 18.
[26] *Railway Age* 72 (22 April 1922): 985.
[27] O. S. Jones to W. H. Scriven, 7 April 1924, HML box 1022, folder 11.
[28] Walter Licht, *Working For the Railroad: The Organization of Work in the Nineteenth Century* (Princeton, N.J., 1983), 26.
[29] Martin W. Clement to Harry B. Higgins, 16 June 1948 (quote), PHMC, box 22 (9-1618), folder 010.241.

years later. Numerous factors contributed to the collapse, ranging from the decline of traditional "rustbelt" industries, to the shift of freight and passenger traffic from the railroads to the highways, to the reluctance of labor unions to authorize personnel reductions to match the increased productivity of railroad labor. Looming above all of these factors, however, was a managerial malaise that characterized much of the railroad industry during the period following World War II. As many historians and journalists have observed, the PRR suffered from this supposed managerial ineptitude to a far greater degree than any other carrier did.[30] Most accounts of the Penn Central bankruptcy have placed far too much emphasis on anecdotal evidence of executive malfeasance, however, rather than on the underlying causes of the PRR's managerial crisis. A study of the PRR's postwar management—including another, ill-advised, reorganization in 1955—is beyond the scope of this essay.[31] It is nevertheless instructive that the managers hired and trained during the 1910s and 1920s presided over the PRR's decline in the 1950s and 1960s. It was during those early decades that PRR executives began to have trouble recruiting the next generation of managers, and it is there that we find the underlying causes of the PRR's decline some four decades later.

[30] Joseph R. Daughen and Peter Binzen, *The Wreck of the Penn Central* (Boston, 1971); Peter Lyon, *To Hell in A Day Coach: An Exasperated Look at American Railroads* (Philadelphia, Pa., 1968); Stephen Salsbury, *No Way to Run a Railroad* (New York, 1982), and the much more recent (and balanced) Rush Loving, *The Men Who Loved Trains: The Story of Men Who Battled Greed to Save an Ailing Industry* (Bloomington, Ind., 2006). More substantive analyses include Saunders, *Merging Lines*; Saunders, *Main Lines: Rebirth of the North American Railroads, 1970-2002* (DeKalb, Ill., 2003); and Mark H. Rose, Bruce E. Seely, and Paul F. Barrett, *The Best Transportation System in the World: Railroads, Trucks, Airlines, and American Public Policy in the Twentieth Century* (Columbus, Ohio, 2006).

[31] For a discussion of the 1955 reorganization, see Albert Churella, " 'The Company could not take complete advantage of its bigness': Managerial Culture and the Pennsylvania Railroad's 1955 Corporate Reorganization," Business and Economic History On-Line 3 (2005).