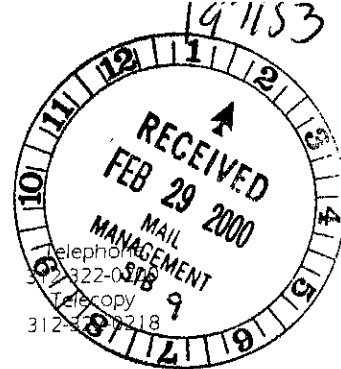


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February 28, 2000

VIA HAND DELIVERY

ENTERED
Office of the Secretary

The Honorable Vernon A. Williams
Secretary
The Surface Transportation Board
1925 K Street, N.W.
Washington, D.C. 20423-0001

FEB 29 2000

Part of
Public Record

Re: Ex Parte No. 582 – Public Views on Major Rail Consolidations

Dear Secretary Williams:

Enclosed for filing in the above-captioned proceeding is the original and ten (10) copies of the text of the statement of Robert S. Hamada. Also enclosed is a 3.5 inch disk, containing the statement in WordPerfect 9.0 format.

Please date-stamp the enclosed extra copy of the statement and return it to the messenger for my files.

Sincerely,

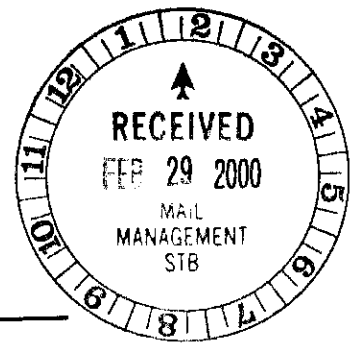
Robert S. Hamada / ejs

Robert S. Hamada

RSH/ejs

Enclosures

BEFORE THE
SURFACE TRANSPORTATION BOARD



STB EX PARTE NO. 582
PUBLIC VIEWS ON MAJOR RAIL CONSOLIDATIONS

ENTERED
Office of the Secretary

STATEMENT OF ROBERT S. HAMADA

FEB 29 2000

Part of
Public Record

I. INTRODUCTION

1. I am the Edward Eagle Brown Distinguished Service Professor of Finance in the Graduate School of Business at the University of Chicago, where I have taught finance since 1966. I have also been the Dean of the Graduate School of Business since 1993. I serve and have served on numerous boards of directors. I have extensive experience as a consultant on financial issues to public and private entities. I have testified as an expert witness on issues related to financial economics in state and federal courts. Further information on my education, publications and professional experience is provided in my curriculum vitae, which is attached as Exhibit A.

2. I have been asked by counsel for BNSF to testify in this hearing concerning the effect of possible rulings in Ex Parte No. 582 on the incentives of firms in the railroad industry to continue making the large capital expenditures required to maintain and upgrade the railroad infrastructure.

II. BACKGROUND

3. BNSF and CN announced plans to combine on December 20, 1999. In announcing its intention to review the proposed transaction (Finance Docket No. 33842), the STB observed:

"The BNSF/CN transaction, if approved and implemented, may trigger yet another full round of major transactions, as other railroads seek to position themselves and their customers to meet the competitive effects of a unified BNSF/CN."

In light of this possibility, the STB declared that it would waive its usual rule of "one case at a time" and would consider the "cumulative impacts and crossover effects that are likely to occur in the wake of a BNSF/CN transaction." The STB focused additional attention on the alleged "cumulative impacts" of the proposed transaction when it announced on January 24, 2000 that it would hold special hearings (Ex Parte No. 582). The matters on which the STB has invited testimony in these special hearings include:

- Views on the timing of any proposed large railroad consolidation in light of the "service difficulties and other disruptions associated with the implementation of the last round of major rail consolidations."
- Views on whether the BNSF/CN combination is likely to spark additional consolidation and, if so, whether this would be in the public interest.
- Views "on whether the railroad industry has and will have the necessary infrastructure, capacity and configuration to meet expected demand for freight service now and in the future."

III. ANALYSIS

4. I do not mean to anticipate the STB's rulings in Ex Parte No. 582. However, given the background of this hearing and the issues on which the STB has solicited comments, it is conceivable that the STB might consider placing a moratorium on further combinations in the railroad industry until the UP-SP and CSX/NS/Conrail service problems are resolved. The STB conceivably might consider such a moratorium even if there were efficient combinations ready to proceed that would produce immediate benefits for shippers and consumers. Alternatively, the STB might consider a moratorium on further combinations in the railroad industry until all of the remaining major railroads were ready to proceed with their "next round" of combinations.

5. For the reasons explained below, I believe that rulings like the ones outlined above would tend to dampen the incentive of railroads to make, and railroad investors to

finance, the capital expenditures needed to maintain and upgrade the railroad infrastructure. This adverse effect on investment incentives is a cost that the STB should take into account when making decisions in Ex Parte No. 582 (and in considering the so-called downstream effects in Finance Docket No. 33842).

A. FINANCE THEORY

6. The willingness of any firm to make capital expenditures depends on the effect that the investment is expected to have on future cash flows and the firm's cost of capital. The basic rule in corporate finance is that firms should undertake all investment projects for which the net present value is positive -- i.e., for which the present value of expected future cash flows (discounted at the cost of capital) exceeds the costs of investment.

7. One of the uncertainties that affects expected future cash flows (and hence the net present value of an investment) is the regulatory environment. To take a simple case, suppose there is a risk that regulators will put a cap on the future profits generated by an investment. The risk of this regulatory intervention reduces the present value of the investment, possibly to the point where the firm decides that the net present value of the investment is negative and therefore should not be undertaken.

8. The regulatory environment can affect investment incentives in more subtle ways. Each year railroads make large investments in track, rolling stock and other related facilities to maintain railroad infrastructure and to handle increased traffic. One of the benefits of a well-maintained infrastructure is the flexibility that it gives a railroad to respond quickly to new business opportunities as they arise. Suppose, however, that because of more stringent regulation, it becomes harder for railroads to move quickly to take advantage of new business opportunities. This expectation of regulatory delay reduces the "option value" of having a well-maintained and extensive infrastructure -- which in turn reduces the incentive to invest in maintaining the infrastructure.

9. The regulatory environment can also affect the terms on which investors are willing to finance investments in railroad infrastructure. Firms in the railroad industry regularly raise funds for capital expenditures from outside investors, principally through the sale of debt. Suppose the regulatory environment becomes more interventionist. Then investors will become more pessimistic about the railroad industry's expected future cash flows and, as a result, debt will become more expensive for railroads to issue. Investors will demand higher yields on railroad debt as compensation for the increased risk of default caused by the hypothetical change in the regulatory environment.

10. If the STB were to issue rulings in Ex Parte No. 582 like the moratoriums on consolidation described above, there is a significant risk that railroads and railroad investors would interpret the rulings as a sign that the STB was becoming more interventionist. Put differently, there is a significant risk that the actions would be interpreted as a sign that the STB was moving in a "re-regulatory" direction, away from the reforms that culminated with the Staggers Rail Act of 1980. This risk would exist even if the STB intended and stated that its actions in Ex Parte No. 582 were one-time rulings, specific to the circumstances currently before the Board. Because "actions speak louder than words," railroads and railroad investors might nevertheless regard an action such as a moratorium on consolidations as an indicator of increased regulatory uncertainty. For the reasons described above, increased regulatory uncertainty would dampen railroads' incentives to make the investments needed to maintain and upgrade the railroad infrastructure. This is a cost that the STB needs to take into account when making its decisions in Ex Parte No. 582. In making its decisions in this case, the STB must be mindful of the effect that its decisions will have on railroad investment incentives.

B. ECONOMIC HISTORY

11. The importance of the interaction between regulatory environment and investment incentives is highlighted by the history of the railroad industry over the last 30 years.

1. **Railroads Require Large Capital Expenditures, Much of Which Is Financed by Outside Investors**

12. The transportation services provided by railroads require an extensive infrastructure of track, rolling stock and associated facilities. The capital invested in the rail network is fixed and sunk and represents a common resource for all traffic utilizing the network. This fixed investment is necessary whatever the volume of traffic moved is – whether railroads move one carload or 10,000 carloads.

13. Maintaining and upgrading the railroad infrastructure requires large capital expenditures. In the last 10 years, Class I railroads had capital expenditures of \$49 billion, including \$7.2 billion invested in 1998.¹ Railroads invested this money in many parts of their systems – roadways and structures such as track, signaling systems, and facilities; and equipment such as locomotives and freight cars. Figure 1 shows total capital expenditures (in constant dollars) per mile of road owned by Class I railroads. Rail spending has increased significantly in the past 10 years.

14. These investments have been funded with a combination of internal funds derived from operations supplemented with external funds raised in capital markets. Figure 2 summarizes Class I railroad capital expenditures and the levels of those expenditures financed through internally generated funds versus funds obtained from external capital markets. Railroads have found it necessary in every year shown to fund capital from outside sources. The industry as a whole has secured from capital markets (primarily in the form of debt) between \$800 million and \$2.5 billion annually to maintain and improve the network.

15. The discussion of industry-wide trends also applies in particular to BNSF. In the last few years, BNSF has invested heavily in upgrading its network. According to AAR statistics, BNSF's capital expenditures accounted for nearly a third of all Class I capital expenditures during the 1996-1998 time period. BNSF invested in facilities, equipment, and information systems in order to provide its customers with better and more efficient service.

¹ Assoc. of American Railroads, Railroad Facts (1999).

Between 1996 and 1998, BNSF invested \$7.1 billion to maintain and expand its network and provide customers with more reliable consistent service.² About \$2.8 billion was spent to expand capacity to provide improved transportation services to BNSF's customers. Main line track capacity was expanded on some of the busiest routes, intermodal capacity was increased, and the locomotive fleet was significantly expanded. In addition, BNSF acquired track from Union Pacific. Another \$3.7 billion was spent maintaining track, signals, bridges, locomotives, and freight cars. These investments have helped BNSF become more efficient and have contributed to the reduction in BNSF's operating ratio from 79.2% in 1996 to 75.9% in 1998.³

2. **Deregulation Has Been Important in Restoring Investment Incentives and Improving the Performance of the Railroad Industry**

16. The robust levels of investment observed today in the railroad industry represent a dramatic change from the situation prior to the regulatory reforms that culminated with the Staggers Rail Act of 1980. The railroad industry was in terrible shape in the 1970s. A number of railroads were in bankruptcy. Those that were not in bankruptcy were reluctant to make capital expenditures. According to the Department of Transportation, deferred maintenance and delayed capital improvements as of June 1976 exceeded \$4 billion.⁴

17. There is widespread agreement that much of the blame for the poor financial condition of the railroad industry in the 1970s can be traced to overly restrictive regulation.⁵ Railroads' share of intercity freight traffic declined from about 75% in 1920 to about 38% in

² Burlington Northern Santa Fe, 1998 Annual Report to Shareholders.

³ Operating ratio measures before-tax operating costs as a percentage of revenues.

⁴ U.S. Dept. of Transportation, A Prospectus for Change in the Freight Railroad Industry (Oct. 1978) at 24.

⁵ See, e.g., U.S. General Accounting Office, Railroad Regulation: Economic and Financial Impacts of the Staggers Rail Act of 1980 (May 1990) at 2; U.S. General Accounting Office, Railroad Regulation: Changes in Railroad Rates and Service Quality Since 1990 (Apr. 1999) at 2; Braeutigam, Consequences of Regulatory Reform in the American Railroad Industry, Southern Econ. J. 468 (Jan. 1993) ("Although regulatory reform has occurred in many American industries in the past two decades, in few of these industries was the need for reform as clear and urgent as in the domestic railroad industry during the 1970s").

1980.⁶ This long-run decline in railroads' share was not due primarily to regulation. It was due primarily to demographic changes and the emergence of intermodal competition, especially trucks. But regulation hampered the ability of the railroad industry to respond to these economic changes – and as a result prevented the industry from making efficient adjustments. Before the reforms that culminated in the Staggers Act, rates, routes, and decisions to construct or abandon lines were all subject to sometimes lengthy regulatory review.

18. The Staggers Rail Act of 1980 (and the reforms that preceded it) put in place a new regulatory framework that replaced the intrusive regulation of earlier decades. In broad terms, the Staggers Act provided flexibility in rates and operations; allowed the negotiation of contracts; and allowed for rationalization of systems through spin-offs, abandonments and combinations. Captive shippers continued to receive regulatory protection. But, as a general matter, following the Staggers Act railroads were allowed to make decisions regarding investment, operations, and pricing in response to market forces with minimal (if any) regulatory interference.

19. The performance of the rail industry following the passage of the Staggers Act represents a dramatic turn around. In response to the incentives provided by reformed regulation, the railroad industry has invested heavily in infrastructure. This increase in investment has contributed to increased productivity. Figure 3 shows Class I revenue ton-miles per employee since 1981. Due in part to increased investment in railroad capital, output per employee has increased steadily over the last 20 years.

20. The investments in railroad infrastructure sparked by deregulation have also contributed to improved safety. Figure 4 shows that accidents per million train-miles have declined significantly over the last 20 years, since the passage of the Staggers Act.

21. These improvements in productivity have been accompanied by declining average rates. Increased productivity leads to falling costs per unit of output. Figure 5 shows that this reduction in costs has been associated with falling rates. Figure 5 shows that average

⁶ U.S. General Accounting Office, Railroad Regulation (May 1990) at 10.

rates (measured in constant 1981 dollars) declined by 55% between 1981 and 1998. According to recent GAO studies, this impact was felt widely by most shippers. In a 1990 report, the GAO stated: "The increased competitiveness of railroads, encouraged by the Staggers Rail Act, was advantageous for most shippers. Overall, real rail rates have declined."⁷ In a more recent report, the GAO reported that average rates in major commodity groupings decreased in both the 1982-1989 time period and in the 1990-96 time period.⁸

IV. CONCLUSION

22. For the reasons explained above, it is important for the STB to consider the effects of its rulings in Ex Parte No. 582 on railroad investment incentives and on the terms on which railroads are able to raise funds from outside investors. The STB should recognize that any action that has even the appearance of "re-regulation" is likely to increase regulatory uncertainty from the perspective of the railroads that make the investments and the investors that help finance them. If this happens, railroads will be less willing to make the capital expenditures required to maintain and upgrade the railroad infrastructure and investors will demand higher interest rates on railroad debt.

23. The history of the railroad industry over the past 30 years provides powerful evidence of the interaction between the regulatory environment, railroad investment incentives, and the performance of the industry. Deregulation transformed the industry and produced great benefits for both shippers and consumers. Given this record of success under deregulation, I am very concerned about the adverse effects of any ruling by the STB that takes (or is perceived to take) the industry even partially in the direction of the highly regulated environment that existed before 1980. In an era where deregulation has produced significant benefits and a healthier industry and where the STB and others are very concerned about whether necessary investments in infrastructure will be made, the STB should be concerned

⁷ U.S. General Accounting Office, Railroad Regulation (May 1990) at 52.

⁸ U.S. General Accounting Office, Railroad Regulation (Apr. 1999) at 47-48. Analysis of more specific commodities showed that not every shipper has experienced a decrease in rates since 1990.

about any action in Ex Parte No. 582 that risks reversing the progress observed in the railroad industry since deregulation.

VITA

ROBERT S. HAMADA

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Wife: Anne

Children: Matthew (born 1967)
 Janet (born 1968)

Education

1963–1966 *Massachusetts Institute of Technology*. Ph.D. in Finance (completed in 1969) at the Sloan School of Management. Concentration in Business and Public Finance, Economics. Thesis: "Portfolio Analysis and Corporation Finance." Other major areas of investigation: The Empirical Incidence of the Corporation Income Tax in a Neoclassical Growth Economy.

1959-1961 *Massachusetts Institute of Technology*. S.M. (Completed in 1961) at the Sloan School of Management. Thesis: "An Analysis of Diffusion Indexes of Insiders' Transactions."

1955-1959 *Yale University*. B.E. in Chemical Engineering (completed in 1959).

Employment

1993-present	Dean, Graduate School of Business, University of Chicago
1993-present	Edward Eagle Brown Distinguished Service Professor of Finance, Graduate School of Business, University of Chicago
1993	Director, Center for International Business Education and Research, Graduate School of Business, University of Chicago
1989-1993	Edward Eagle Brown Professor of Finance, Graduate School of Business, University of Chicago
1985-1990	Deputy Dean for the Faculty, Graduate School of Business, University of Chicago
1966-1989	Instructor, Assistant Professor, Associate Professor, and Professor of Finance, Graduate School of Business, University of Chicago
1980-1985	Director, Center for Research in Security Prices, Graduate School of Business, University of Chicago
1979-1980	Baring Brothers Visiting Professor of Finance (September through August), London Graduate School of Business Studies, London, England
1976	Leslie Wong Distinguished Faculty Summer Research Fellow, University of British Columbia, Vancouver, Canada
1973	Visiting Senior Lecturer in Finance (January through June), London Graduate School of Business Studies, London, England
1971-1972	Visiting Associate Professor of Finance (September through June), University of Washington, Seattle, Washington
1971	Visiting Associate Professor of Finance (July through August), University of California at Los Angeles
1961-1963	Economics and financial analyst, Sun Oil Company, Philadelphia, Pennsylvania. Assignments included: acquisition and disposition studies, capital budgeting, mathematical programming, and exponential smoothing models.

Teaching, Research, Administrative, Consulting Interests

Teaching areas include: Corporation Finance, Portfolio and Security Analyses, Capital Markets, Applications of Financial Theory, Public Finance, Financing of Nonprofit Organizations, and Small Business Problems. Received the first "Outstanding Teacher Award" (1970) and the McKinsey Award for Excellence in Teaching (1981), Graduate School of Business, University of Chicago; *Fortune* Magazine's 8 Outstanding U.S. Business School Professors (January 1982).

Research interests currently in: effects of risk and taxes on the financing and capital budgeting decisions within the firm, on portfolio selection, and on the pricing of multiperiod capital assets; interface between finance, corporate strategy, and international business. Listed in Blaug, M. *Who's Who in Economics: A Biographical Dictionary of Major Economists 1700–1981*; MIT Press, 1982, 1986.

Administrative duties include: Dean, Graduate School of Business, University of Chicago (1993–present); Director, Center for International Business Education and Research (1993); Deputy Dean, Graduate School of Business, University of Chicago (1985–1990); Director of Center for Research in Security Prices (1980–1985); finance faculty coordinator for Graduate School of Business, University of Chicago (1975–1985). Committee work includes: Chair, University Committee on Retirement (1993–1999); Standing Committee on Retirement Issues (1993–1999); Center for Health Administration Studies (CHAS) Oversight Committee (1993–1995); Chairman, Task Force on Faculty Retirement (1991–1992).

Consulting activities include: associate editor, *Journal of Finance* (1974–1977; 1981–1983); associate editor, *Journal of Financial and Quantitative Analysis* (1970–1983); referee for 16 journals; consulting editor in finance, Scott Foresman & Co.; advisory board, *Journal of Applied Corporate Finance*; State of Illinois (framing and implementing the Illinois state income tax); City of Chicago Economic Development Commission; Brown Brothers Harriman and Company; Harris Trust and Savings Bank; Continental Illinois Bank; First Chicago; Booz Allen; Touche Ross; FMC Corporation; Bradford National Corporation; UOP Inc.; Timken; and other firms. Expert witness for Mayer, Brown and Platt; Kirkland and Ellis; Jenner & Block; White and Case; Arnold & Porter; Winston & Strawn, etc.; speaker at innumerable conferences and universities.

Member of the Board of Directors (or Trustees): National Bureau of Economic Research (NBER) (1983–present); A. M. Castle & Co. (1984–present); Northern Trust Corporation (1988–present); Chicago Board of Trade (public director, 1989–1992, 1993–1996, 1996–present); Flying Food Group, Inc. (1992–present); WTTW Channel 11 (1996–present); Mayor Daley's Northerly Island Park Planning Committee (1996–1998); Riverwood International Corporation (1992–1993); the reorganized Manville Corporation (1988–1993); INFORMS (TIMS) (1986–1999); Teachers Insurance and Annuity Association (TIAA) (1984–1988); Van Straaten Chemical Company (1982–acquired in 1987); elected member of the Board of Directors, The American Finance Association (1982–1985); University of Chicago Laboratory Schools (1984–1991); Hyde Park Neighborhood Club (1970–present).

Member of the Advisory Committee (Board) of: founding member of the Advisory Board of the

College of Management of National Taiwan University (1998-2000); the *Encyclopedia of American Business* advisory committee (1997-present); EVA® Institute.

Member of the Investments (or Finance) Committee of the Board of: INFORMS (TIMS) (1995-1999); National Bureau of Economic Research (1985–1995); American Economic Association (1988-1990, 1991-1993, 1997-1999).

Member of: American Economic Association; American Finance Association; Econometric Society; The Bond Club of Chicago; Chicago Committee of The Chicago Council of Foreign Relations; Commercial Club of Chicago; The Economic Club of Chicago; The Executives' Club of Chicago, Risk Management Center of Chicago.

Listed in Marquis' *Who's Who in America*; *Who's Who in the World*; *Who's Who in Finance and Industry*; *Who's Who in the Midwest*; *Who's Who in Science and Engineering*; *Who's Who in American Education*.

Publications and Working Papers

"Portfolio Analysis, Market Equilibrium and Corporation Finance," *Journal of Finance*, March, 1969; reprinted in: Stephen Archer and Charles A. D'Ambrosio (editors), *The Theory of Business Finance: A Book of Readings*, Macmillan Publishing Co., 1976.

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"Calculation of Present Value: The Multiperiod Case with Explicit Adjustment for Risk," *Proceedings of the Seminar on the Analysis of Security Prices*, November 1975.

"Super Premium Security Prices and Optimal Corporate Financing Decision: Discussion," *Journal of Finance*, May 1976.

"Corporate Finance and the Capital Asset Pricing Model: Discussion," *Journal of Finance*, May 1977.

"Financial Theory and Taxation in an Inflationary World: Some Public Policy Issues," *Journal of Finance*, May 1979.

"Taxes and Corporate Financial Management," (with Myron Scholes), in Altman, E. and Subrahmanyam, M., (editors), *Recent Advances in Corporate Finance*, Irwin Press, 1985.

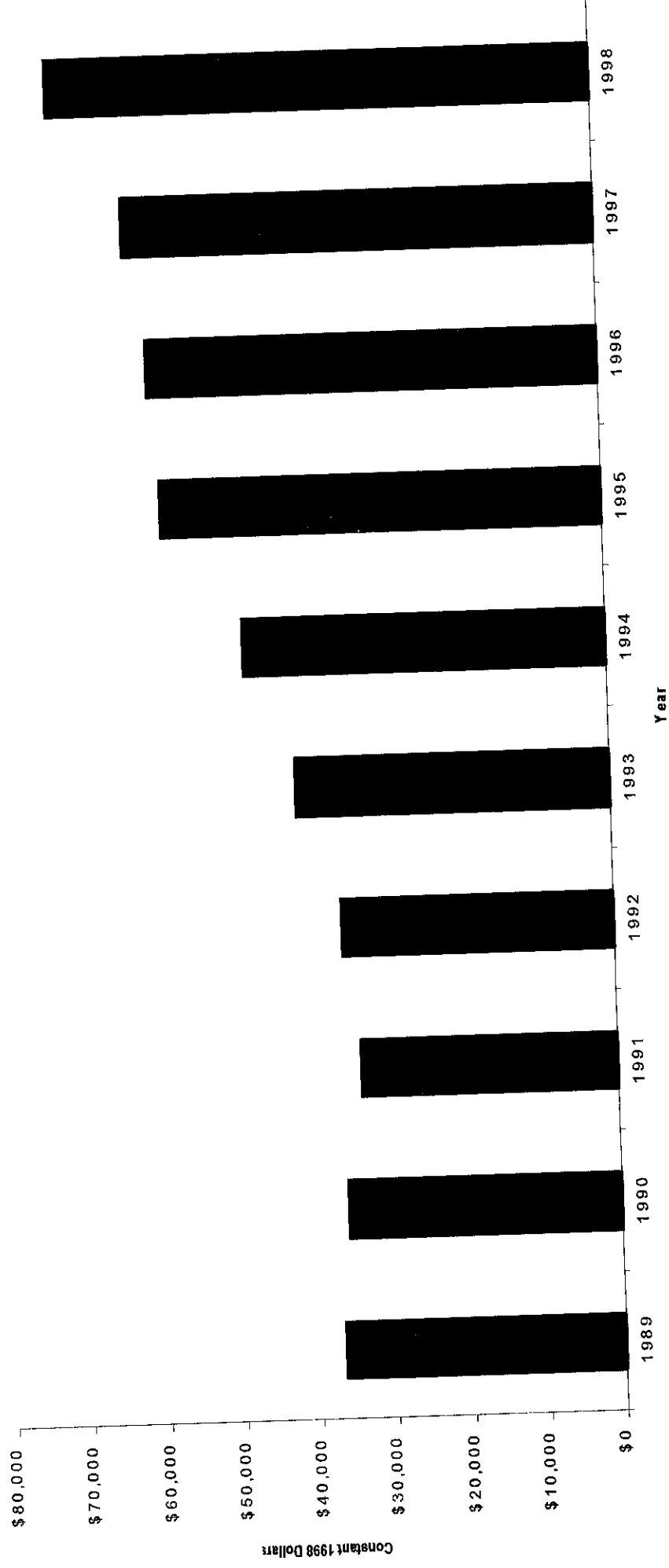
"Differential Taxes and the Structure of Equilibrium Rates of Return: Managerial Implications and Remaining Conundrums," in *Advances in Financial Planning and Forecasting*, Vol. II, 1986.

"Making Statistics More Effective in Schools of Business: Interdisciplinary Cooperation," (with James M. Patell, Richard Staelin, and William E. Wecker), *Proceedings of the Business and Economics Statistics Section—American Statistical Association*, 1986.

"Problems and Opportunities for Statistics in Accounting, Marketing, Finance, and Production," (with James M. Patell, Richard Staelin, and William E. Wecker), *Journal of Business and Economic Statistics*, 1987.

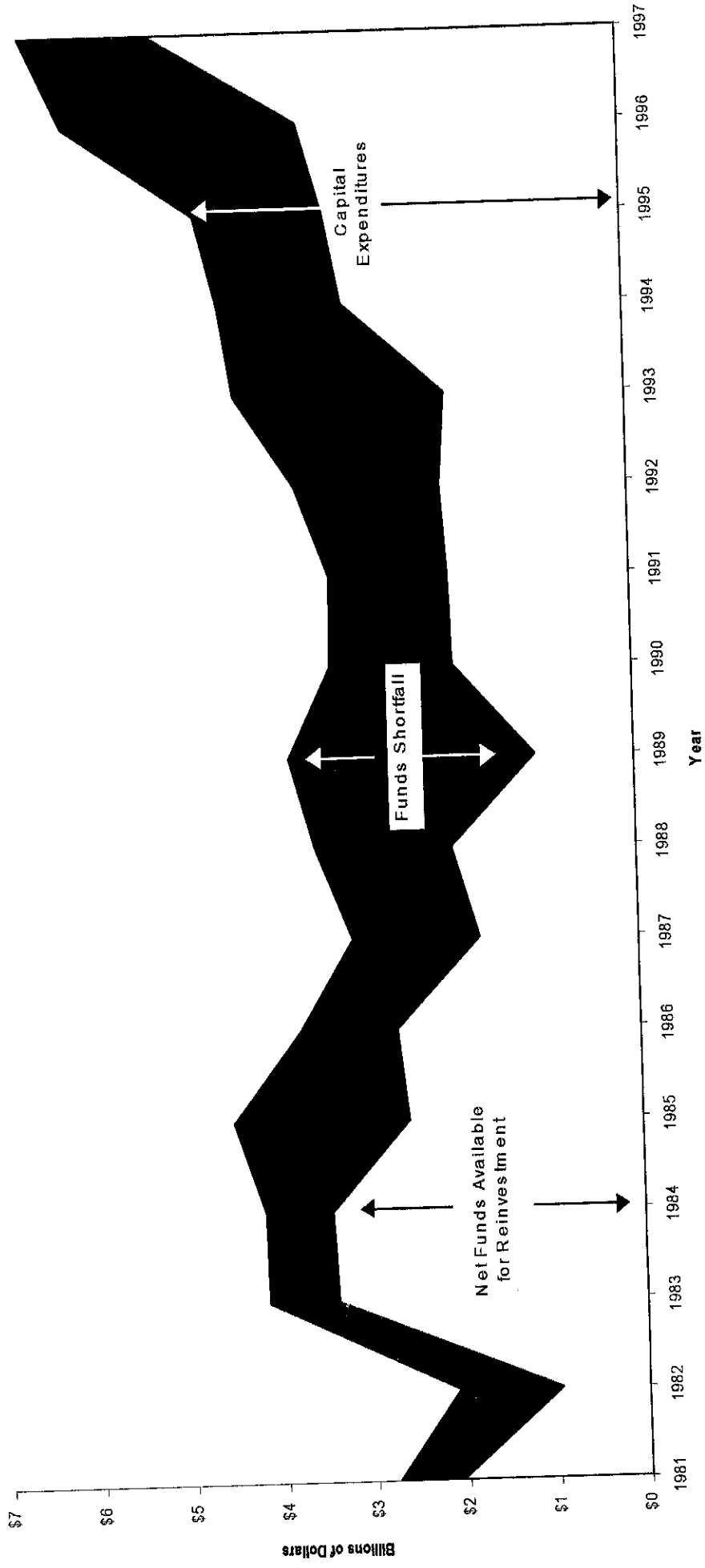
March 1998

Figure 1
Class I Railroad Capital Expenditures Per Mile of Road
(1989-1998)



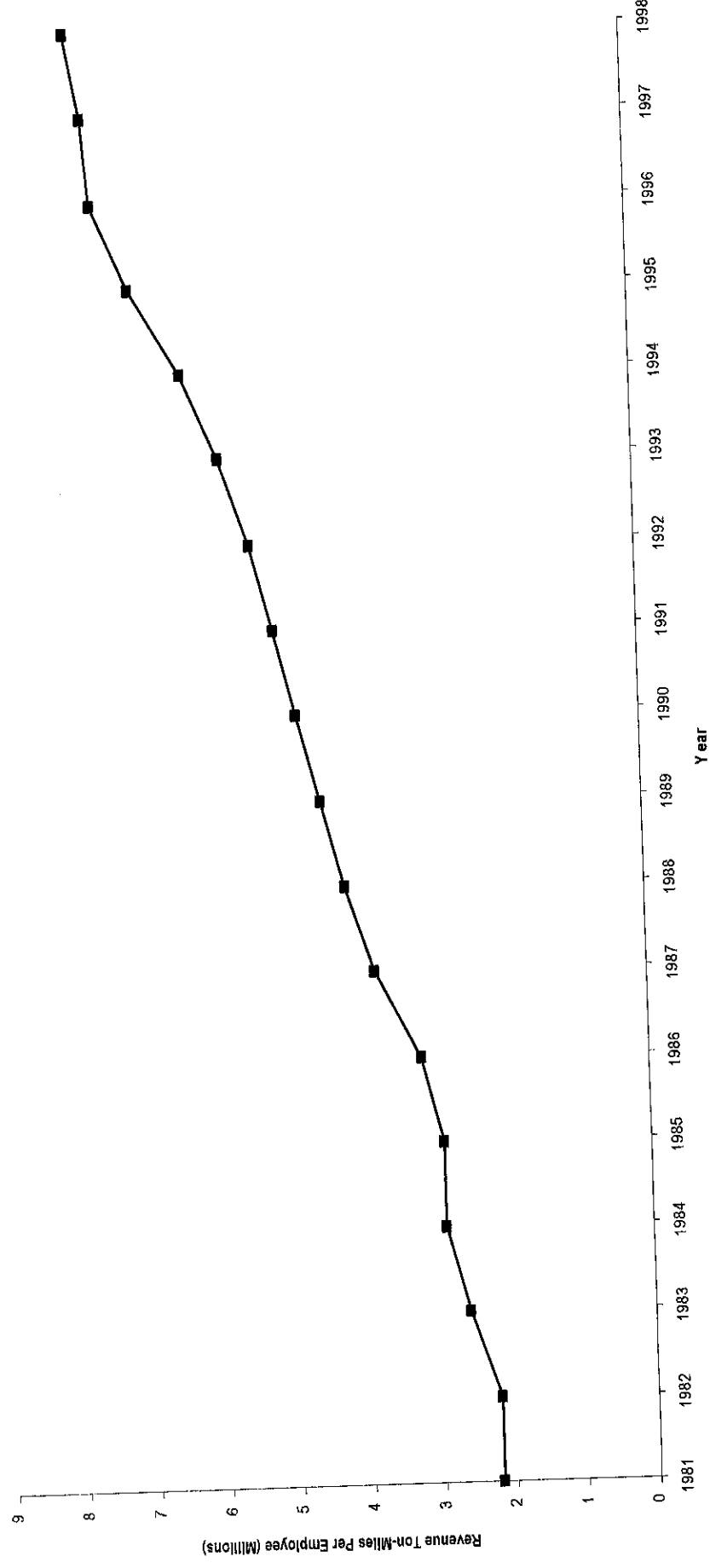
Source: Association of American Railroads, *Railroad Facts*

Figure 2
Class I Railroad Net Funds Available for Reinvestment vs. Capital Expenditures
(1981-1997)



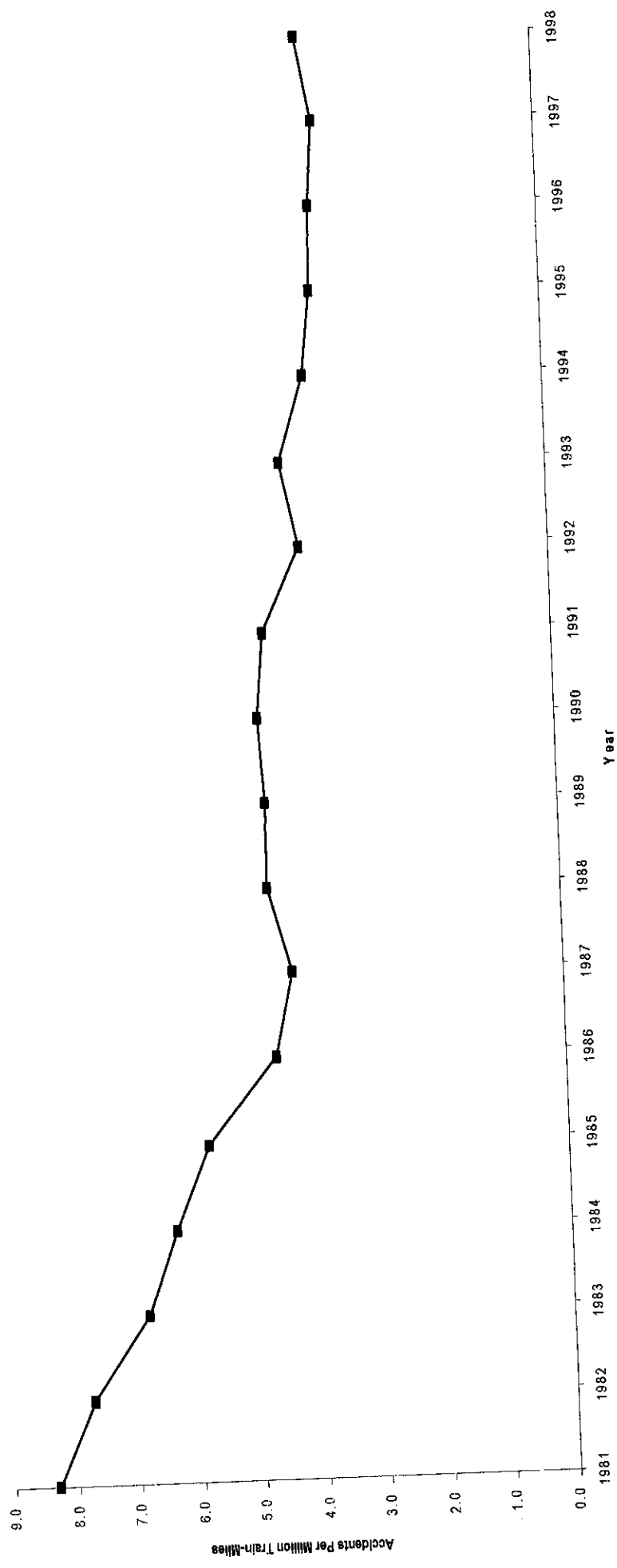
Source: Association of American Railroads

Figure 3
Class I Railroad Revenue Ton-Miles Per Employee
(1981-1998)



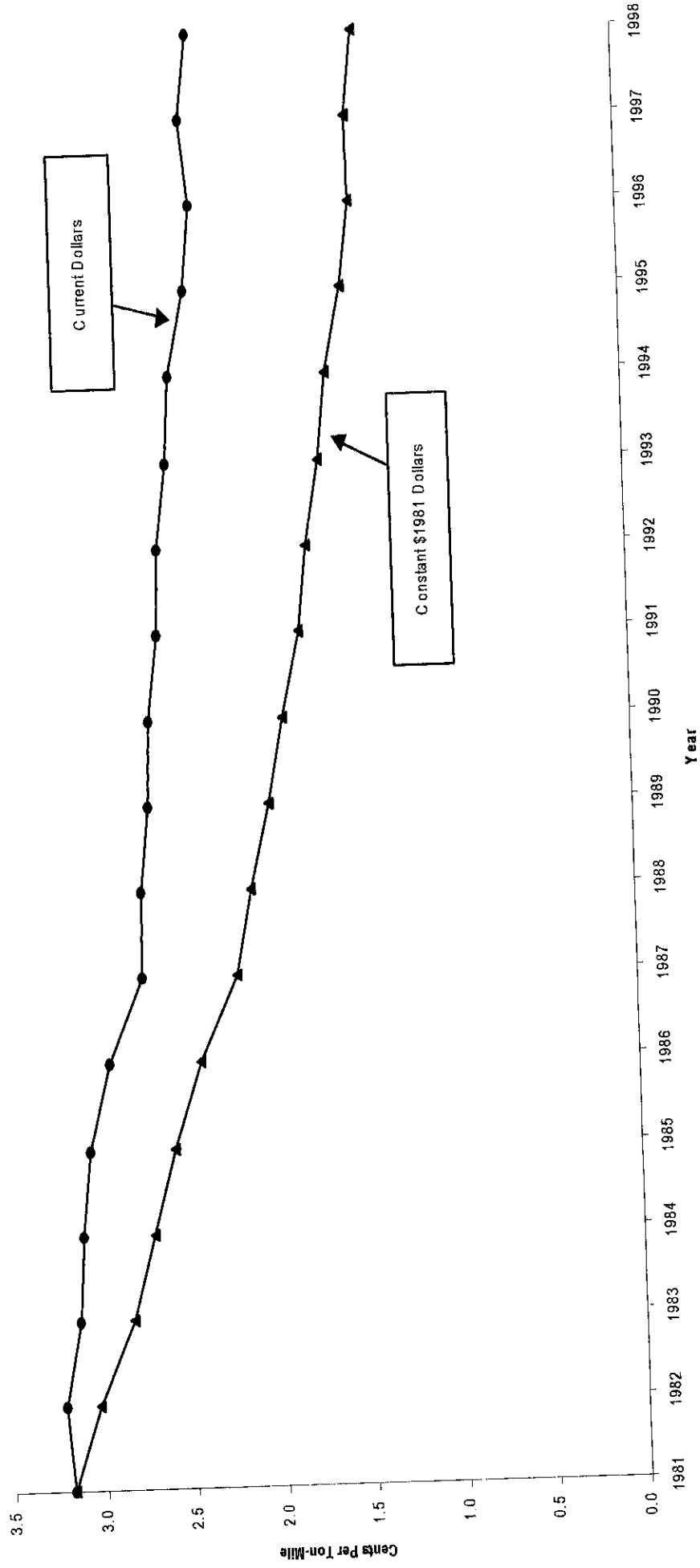
Source: Association of American Railroads, *Railroad Facts*

Figure 4
Accidents Per Million Train-Miles
(1981-1998)



Source: Association of American Railroads, *Railroad Facts*

Figure 5
Class I Railroad Freight Revenue Per Ton-Mile in Current and Constant 1981 Dollars
(1981-1998)



Source: Association of American Railroads, Railroad Facts