

**Dhananjayrao Gadgil Library**



**GIPE-PUNE-010225**

**THE  
AMERICAN TRANSPORTATION  
PROBLEM**

## THE BROOKINGS INSTITUTION

The Brookings Institution—Devoted to Public Service through Research and Training in the Humanistic Sciences—was incorporated on December 8, 1927. Broadly stated, the Institution has two primary purposes: The first is to aid constructively in the development of sound national policies; and the second is to offer training of a super-graduate character to students of the social sciences. The Institution will maintain a series of co-operating institutes, equipped to carry out comprehensive and inter-related research projects.

The responsibility for the final determination of the Institution's policies and its program of work and for the administration of its endowment is vested in a self-perpetuating Board of Trustees. The Trustees have, however, defined their position with reference to the investigations conducted by the Institution in a by-law provision reading as follows: "The primary function of the Trustees is not to express their views upon the scientific investigations conducted by any division of the Institution, but only to make it possible for such scientific work to be done under the most favorable auspices." Major responsibility for "formulating general policies and co-ordinating the activities of the various divisions of the Institution" is vested in the President. The by-laws provide also that "there shall be an Advisory Council selected by the President from among the scientific staff of the Institution and representing the different divisions of the Institution."

### BOARD OF TRUSTEES

ROBERT S. BROOKINGS	DAVID F. HOUSTON
WHITEFOORD R. COLE	VERNON KELLOGG
NORMAN H. DAVIS	JOHN C. MERRIAM
FREDERIC A. DELANO	HAROLD G. MOULTON
CLARENCE PHELPS DODGE	JOHN BARTON PAYNE
JEROME D. GREENE	LEO S. ROWE
BOLTON SMITH	

### OFFICERS

ROBERT S. BROOKINGS, *Chairman*  
LEO S. ROWE, *Vice-Chairman*  
HENRY P. SEIDEMANN, *Treasurer*  
HAROLD G. MOULTON, *President*  
LEVERETT S. LYON, *Executive Vice-President*

### ADVISORY COUNCIL (1932-33)

ARNOLD B. HALL	LEVERETT S. LYON
CHARLES O. HARDY	EDWIN G. NOURSE
LEWIS L. LORWIN	HENRY P. SEIDEMANN

THE  
AMERICAN TRANSPORTATION  
PROBLEM

PREPARED FOR  
THE NATIONAL TRANSPORTATION  
COMMITTEE

BY

HAROLD G. MOULTON  
AND ASSOCIATES

PAUL T. DAVID  
CHARLES L. DEARING  
RALPH L. DEWEY  
WILFRED ELDRED  
CHARLES W. ELIOT, 2d  
RALPH J. FOGG  
CHARLES O. HARDY

LLOYD C. HOELTZEL  
SUSUMU KOBE  
ADAH L. LEE  
ISADOR LUBIN  
FRED W. POWELL  
PORTER R. TAYLOR  
BENJAMIN P. WHITAKER

WASHINGTON, D.C.  
THE BROOKINGS INSTITUTION

1933

COPYRIGHT, 1933, BY  
THE BROOKINGS INSTITUTION

Set up and printed.

Published March, 1933

All rights reserved, including the right of reproduction  
in whole or in part in any form.

X4.73.N3

G3

10225

*Printed in the United States of America by*  
George Banta Publishing Company  
Menasha, Wisconsin

## PREFACE

In the analyses submitted herewith we have endeavored to marshal in a systematic manner the essential information with reference to the various subjects covered, and to relate the whole discussion to the issues involved in stabilizing and reorganizing American transportation. In the four months at our disposal we could not cover in detail every phase of the broad problem before us, nor have we been able to give adequate attention to literary form. Numerous topics pertaining to highly technical questions and of interest to particular groups have been omitted as falling outside the primary purpose of our inquiries.

In the conduct of the investigation I have had the collaboration of a number of the regular staff of the Brookings Institution and of several other specialists recruited for particular phases of the problem. Charles O. Hardy, Adah L. Lee, and Fred W. Powell have acted as a collaborating committee sharing responsibility in the preparation of the report as a whole. Dr. Hardy has contributed Part III and much of Chapters II and III; Dr. Powell is primarily responsible for Part IX and Chapter X; Miss Lee has collaborated with me in Part V. Dr. Isador Lubin is the author of Chapter IX; Dr. Benjamin P. Whitaker of Chapter XI; Charles L. Dearing of Chapters XXIV, XXV, and XXVI; and Paul T. David of Chapter XXXI. Dr. Frieda Baird, Sheldon B. Akers, Edwin A. Lamke, and Ralph P. Ward, of the Institution staff, served as statistical assistants.

Chapter VII was contributed by Dr. Ralph L. Dewey, of Ohio State University; Chapter VIII by Dr. Wilfred

## *AMERICAN TRANSPORTATION PROBLEM*

Eldred, transportation specialist; Chapters XXXIV and XXXV by Charles W. Eliot, 2d, Director of Planning, National Capital Park and Planning Commission; Chapter XXIX and a part of Chapter XXXIII by Ralph J. Fogg, consulting engineer; Chapter XXX by Lloyd C. Hoeltzel, United States Department of Commerce; and Chapter XXVIII by Porter R. Taylor, formerly Director, Bureau of Markets, Pennsylvania Department of Agriculture. Dr. Susumu Kobe, of the University of Michigan, contributed Chapters IV, V, and VI, and assisted in connection with a number of other chapters.

The undersigned has contributed the chapters not otherwise designated and he accepts responsibility for the entire analysis.

We have received innumerable suggestions and a large number of special memoranda from persons and organizations interested in transportation, for all of which we are very grateful. We are especially indebted to the Interstate Commerce Commission for its generous aid in the assembling of statistical information.

HAROLD G. MOULTON

Washington, D.C.,  
February, 1933.

10225

# CONTENTS

PAGE

	✓ PREFACE .....	v
	✓ REPORT OF THE NATIONAL TRANSPORTATION COM- MITTEE .....	xv
	Introductory .....	xv
	A. Conclusions of the Committee .....	xvii
	B. The Report .....	xxii
	C. Supplemental Report of Alfred E. Smith ..	lv
	Appendix: Letter of Invitation .....	lxv
	PART I. INTRODUCTION	
	CHAPTER I	
	✓ INTRODUCTION .....	3
	I. Summary of American Transportation Devel- opment .....	3
	II. Regulation and Regulatory Agencies .....	9
	III. Relative Importance of Transportation Agencies ..	14
	IV. Basic Principles of Transportation .....	19
	CHAPTER II	
	† THE TREND OF RAILWAY FINANCIAL CONDITION, 1890-1929 .....	26
	I. Financial Status of Railways as a Whole .....	26
	II. Financial Status of Regional Groups .....	34
	III. Ability to Raise Capital .....	37
	IV. Summary .....	47
	CHAPTER III	
	† RAILROADS AND THE DEPRESSION .....	49
	I. Traffic .....	49
	II. Rates .....	53
	III. Revenues and Expenditures .....	57
	IV. Disbursements .....	61
	V. Investment .....	64
	VI. Place of the Railways in the Depression .....	65



# AMERICAN TRANSPORTATION PROBLEM

## PART II. FACTORS AFFECTING RAILWAY NET INCOME

	PAGE
✓ INTRODUCTORY STATEMENT .....	73
CHAPTER IV	
✓ VOLUME OF TRAFFIC .....	74
CHAPTER V	
✓ THE DECLINE OF PASSENGER BUSINESS .....	86
I. The Increasing Unprofitableness of Passenger Service .....	86
II. Analysis of the Decline in the Volume of Passenger Traffic .....	88
III. Analysis of the Operation of Passenger Service .....	92
CHAPTER VI	
X OPERATING EFFICIENCY .....	99
I. The Movement Toward Greater Efficiency ..	99
II. Results of the Efficiency Movement .....	103
III. Managerial Efficiency .....	109
CHAPTER VII	
✓ FREIGHT AND PASSENGER RATES .....	112
I. The Trend of Railway Rates and Earnings 1910-1931 .....	112
II. Commission Policies Affecting Rates .....	115
III. Lower Rates for Depressed Industries: The Hoch-Smith Resolution .....	119
IV. The Influence of Competition on Rate Levels ..	127
V. Relating Freight Rates to Costs .....	132
VI. The Long-and-Short-Haul Problem .....	135
VII. The Freight Rate Structure and the Movement toward Uniformity .....	140
VIII. Summary and Conclusions .....	144
CHAPTER VIII	
X OBSOLESCENT LINES .....	147
I. The Extent of Railway Abandonments' .....	147
II. Estimates of Unprofitable Mileage and its Financial Burden .....	152

## CONTENTS

	PAGE
III. Attitude of the Interstate Commerce Commission toward Abandonments .....	172
CHAPTER IX	
+ RAILROAD WAGES AND OPERATING COSTS .....	179
I. The Wage Bill of the Railroads .....	179
II. The Status of Railroad Labor .....	181
III. The Trend of Railroad Wage Rates .....	197
IV. Labor Costs and Railroad Operation .....	202
CHAPTER X	
+ UNPRODUCTIVE EXPENDITURES .....	222
CHAPTER XI	
+ TAXATION .....	231
I. Trends of Federal and State Taxation, 1911-1931 .....	233
II. Tax Burden of Class I Railways: 1911-1931 .....	237
III. Comparative Tax Burden: Railroads and other Industries .....	246
IV. Geographical Variations of the Railroad Tax Burden .....	265
V. Conclusions .....	270
PART III. FINANCIAL STRUCTURE AND FINANCIAL POLICIES	
CHAPTER XII	
+ FINANCIAL STRUCTURE AND OWNERSHIP OF THE RAILWAYS .....	275
CHAPTER XIII	
+ RAILROAD CAPITALIZATION .....	285
I. The Control of Capitalization .....	286
II. The Significance of the Amount of Capitalization .....	287
III. Should there be a General Decapitalization? ..	288
IV. Should there be a Devaluation of the Funded Debt? .....	291

## AMERICAN TRANSPORTATION PROBLEM

	CHAPTER XIV	PAGE
+ FINANCIAL POLICIES . . . . .		298
I. Railway Financing, 1925-1929 . . . . .		301
II. Stocks versus Bonds: Controlling Factors . . . . .		306
III. Future Financing . . . . .		311
IV. Decapitalization as a Financial Expedient . . . . .		313
V. Dividend Policy . . . . .		316
	CHAPTER XV	
+ REORGANIZATION PROCEDURE: CURRENT PRACTICE . . . . .		321
I. Reorganization Procedure . . . . .		322
II. Size of Capitalization . . . . .		326
III. Amount of Fixed Charges . . . . .		331
IV. Reorganization Expenses . . . . .		333
V. The Maintenance of Equity . . . . .		336
	CHAPTER XVI	
+ REORGANIZATION PROCEDURE: PROPOSALS FOR CHANGE . . . . .		349
	PART IV. REGULATION OF THE LEVEL OF RATES	
J INTRODUCTORY STATEMENT . . . . .		363
	CHAPTER XVII	
J THE VALUATION PLAN . . . . .		366
I. The Antecedents of the Valuation Act . . . . .		366
II. The Process of Making Valuations . . . . .		371
	CHAPTER XVIII	
J THE RECAPTURE EXPERIMENT . . . . .		377
	CHAPTER XIX	
J ANALYSIS OF VALUATION PRINCIPLES . . . . .		387
I. Market Values as a Basis of Rates . . . . .		387
II. The Cost of Reproduction Theory . . . . .		388
III. The Cost, or Investment, Theory . . . . .		392
IV. Appraisal of Alternative Principles . . . . .		394

# CONTENTS

	PAGE
CHAPTER XX	
✓ THE UTILITY OF PHYSICAL VALUATION .....	400
I. Physical Valuation and the Earnings of Individual Roads .....	400
II. Physical Valuation and the Regulation of the Level of Rates .....	405
III. Other Uses of Valuation Data .....	413
IV. Should Valuation be Continued? .....	418
V. Conclusions .....	421
✦ PART V. WATER TRANSPORTATION	
INTRODUCTORY STATEMENT .....	427
✦ CHAPTER XXI	
WATERWAY HISTORY AND POLICY .....	429
I. Water Transportation to 1890 .....	429
II. The Program of Waterway Rehabilitation ...	434
III. The Future Program of Waterway Development .....	442
✦ CHAPTER XXII	
COMPARATIVE COST OF WATER AND RAIL TRANSPORTATION .....	454
I. Analysis of General Cost Elements .....	454
II. The Mississippi Valley Association's Cost Computation .....	454
III. Railway Subsidies .....	466
✦ CHAPTER XXIII	
ANALYSIS OF SPECIFIC PROJECTS .....	469
I. The New York State Barge Canal System ...	469
II. The Ohio River .....	476
III. The Missouri River Improvement .....	486
IV. The Mississippi River .....	491
V. The Intercoastal Waterway .....	503
VI. The St. Lawrence Project .....	505
VII. Conclusion .....	511

# AMERICAN TRANSPORTATION PROBLEM

## PART VI. HIGHWAY TRANSPORTATION

	PAGE
CHAPTER XXIV	
NATURE OF THE HIGHWAY TRANSPORT PROBLEM . . . . .	517
I. Growth of Highway Transport . . . . .	517
II. Character of the Trucking Business . . . . .	521
CHAPTER XXV	
HIGHWAY DEVELOPMENT AND FINANCING . . . . .	527
I. Extent and Character of Highway Develop- ment . . . . .	529
II. Highway Outlays and Methods of Financing . .	535
III. Summary . . . . .	546
CHAPTER XXVI	
WHO PAYS FOR THE HIGHWAYS? . . . . .	547
I. Determination of Highway Costs . . . . .	548
II. Allocation of Highway Costs between Types of Vehicles . . . . .	558
CHAPTER XXVII	
MOTOR VEHICLE TAXATION . . . . .	564
I. Special Motor Vehicle Taxes for Highway Sup- port . . . . .	565
II. General Motor Vehicle Taxes . . . . .	568
CHAPTER XXVIII	
TRUCK COMPETITION IN AGRICULTURAL PRODUCTS . .	575
I. Livestock . . . . .	578
II. Fruits and Vegetables . . . . .	595
III. Dairy Products . . . . .	621
IV. Poultry and Eggs . . . . .	637
V. Cotton . . . . .	645
VI. Summary and Conclusions . . . . .	659
CHAPTER XXIX	
POSSIBILITIES OF CO-ORDINATION OF RAIL AND MOTOR TRANSPORT . . . . .	669
I. In Terminal Freight Movement . . . . .	671
II. In Line Haul Freight Movement . . . . .	685

## CONTENTS

	PAGE
III. Co-ordinated Railroad Bus Service . . . . .	690
IV. Railroad Use of Motor Vehicles . . . . .	692
V. Summary . . . . .	696
<b>PART VII. OTHER TRANSPORTATION AGENCIES</b>	
<b>CHAPTER XXX</b>	
+ OIL AND GASOLINE PIPE LINES . . . . .	701
I. Development of the System . . . . .	702
II. Regulation . . . . .	708
III. Competition Between Railroads and Pipe Lines . . . . .	713
<b>CHAPTER XXXI</b>	
X AIR TRANSPORT . . . . .	717
I. Size and Organization of the Industry . . . . .	718
II. Economic Characteristics of Air Transport . . . . .	723
III. Factors Influencing the Competitive Position of Air Transport . . . . .	725
IV. Air Traffic Levels and Rates of Growth . . . . .	733
V. Co-ordination with Other Transportation Facilities . . . . .	737
VI. Extent of Government Aid . . . . .	739
VII. Reasons for Federal Aid to Air Transport . . . . .	747
VIII. Extent and Character of Existing Regulation . . . . .	753
IX. Conclusions . . . . .	757
<b>PART VIII. STABILIZATION OF THE RAILROAD INDUSTRY</b>	
X INTRODUCTORY STATEMENT . . . . .	763
<b>CHAPTER XXXII</b>	
THE READJUSTMENT OF RATES AND COSTS . . . . .	765
<b>CHAPTER XXXIII</b>	
THE PROBLEM OF TERMINAL UNIFICATION . . . . .	780
I. The Place of the Freight Terminal in Railway Operations . . . . .	781
II. Produce Terminals . . . . .	799
III. Passenger Terminals . . . . .	805
IV. Conclusions . . . . .	808

## AMERICAN TRANSPORTATION PROBLEM

	CHAPTER XXXIV	PAGE
TRANSPORTATION AND CITY PLANNING		810
I. The Present Chaotic Situation		813
II. The Place of Railroads in the City Plan		822
III. Streets and Highways as Transportation Lines in the City Plan		826
IV. Waterfronts and Ports		831
V. Airports		832
VI. Conclusion		832
	CHAPTER XXXV	
METHODS OF EFFECTING TERMINAL UNIFICATION		834
I. Voluntary Consolidation		834
II. Public Controls		837
III. Public Ownership		842
IV. Conclusions		844
	CHAPTER XXXVI	
CONSOLIDATION AND EFFICIENCY		846
I. Economic Aspects of Consolidation		846
II. Advantages and Disadvantages of Proposed Plans		852
✓ PART IX. REORIENTATION IN TRANSPORTATION REGULATION		
	CHAPTER XXXVII	
DEVELOPMENT OF THE PRESENT SYSTEM OF REGULA- TION		861
I. The Railroads		862
II. Coastal and Inland Shipping		872
III. Motor Vehicles		875
IV. Air Transport		879
✓	CHAPTER XXXVIII	
THE NEED FOR A NEW TRANSPORTATION POLICY		881
BIBLIOGRAPHY		896
INDEX		911

# REPORT OF THE NATIONAL TRANSPORTATION COMMITTEE

## INTRODUCTORY

Herewith are presented:

- A. The Conclusions of the National Transportation Committee.
- B. The Report of the Committee.
- C. Supplemental report by former Governor Alfred E. Smith who prefaces it, "While I am in substantial agreement with the greater part of the Committee Report, this supplementary memorandum states my conclusions in my own language, placing the emphasis where I think it belongs."
- D. Special studies by the research staff to be published shortly by the Brookings Institution, Washington, D.C.

The Committee associated itself at the request of certain Business Associations, Savings Banks, Insurance Companies, and fiduciary and philanthropic institutions interested in railroad securities (see Appendix) in response to an invitation in essential part as follows:

"We, the undersigned organizations, representing many of the interests concerned, believe that there is no more important present task than a thorough and satisfactory solution of the railroad problem, as an integral but the most urgent part of the entire transportation problem. We beg that you examine all



## AMERICAN TRANSPORTATION PROBLEM

62/11-27  
phases of the problem and recommend a solution which, with due regard for the public interest, will ensure an opportunity for the railroads of this country to be put on a business basis, so that neither now nor in the future will they constitute a present threat to the invested savings of our citizens, to loss of employment to our wage-earners, and to the stability of the insurance companies and savings banks; and so that the present burden on the Federal treasury and the American taxpayer may be in a fair measure removed."

The Committee met and organized on October 7, 1932. It was composed of Calvin Coolidge, Chairman, Bernard M. Baruch, Vice-Chairman, former Governor Alfred E. Smith, Alexander Legge and Clark Howell. John W. Power acted as secretary. The Committee selected Dr. Harold G. Moulton, of the Brookings Institution, to organize a research staff.

Just as the Committee's work was nearing a close, it lost the distinguished director of its deliberations who was giving his great talents unsparingly to this work. The report had not taken form at the time of his death, but the Committee has tried to carry on in the spirit of his leadership.

The Committee gathered its facts from three sources:

- (1) Open hearings;
- (2) Studies by other investigating bodies, memoranda, briefs and specific suggestions;
- (3) The work of Dr. Moulton and the staff.

This mass of material is too voluminous and varied to publish in full, but the work undertaken by the re-

## REPORT OF THE COMMITTEE

search staff will be published shortly by the Brookings Institution. Dr. Moulton's conclusions are his own.

The transport problem has been with man since the first rude trails of pre-history. It has shaped the destiny of humanity. The closing of the caravan routes to the East Indies discovered America. History is full of similar consequences. Just now, largely due to the recent rapid development of new forms of transportation, the railroad problem is acute in nearly all important countries, including our own. Commissions more or less similar to this Committee have been at work in England, Canada and the Argentine Republic and we have considered their reports and analyses. There are railroad commissions in nearly every one of our forty-eight States and similar bodies in many other countries. These, the Interstate Commerce Commission and the very able Congressional Committees on these subjects have all been devoting themselves to the problems created by these rapid shifts. Much of this work and a great mass of other data have been assembled and given careful study by the Committee. The problem is very complex and while the Committee is in substantial agreement as to conclusions, it is too much to expect that four men of independent mental processes would all arrive at decisions by identical paths, or with equal emphasis on various factors.

### A. CONCLUSIONS OF THE COMMITTEE

I. The railroad system must be preserved. Changed conditions require new policies but not abandonment of railroad regulation. The development of regulation and of new methods of transport make it unnecessary for Government further to create and foster competition

## AMERICAN TRANSPORTATION PROBLEM

with or among railroads as a defense against monopoly. That is an expensive and ineffective attempt to do indirectly what Government has shown its ability to do directly. Regulation is sufficient. Government policies should be freed of any purpose either to favor or to handicap any form of transportation with relation to any other form. We cannot solve the problem on the theory upon which horses are handicapped in a race. In a fair field and no favor competition should be permitted to decide the result. Regulation should not attempt to "run the business" of transportation. It should concentrate on protecting the public against discrimination and extortion and on requiring the most efficient service at the lowest competitive cost.

- (1) Parallel lines and systems are wasteful and unnecessary. Regional consolidations should be hastened and, where necessary, enforced, looking eventually to a single National system with regional divisions and the elimination of all excess and obsolete lines and equipment. Neither holding companies nor any other device should be permitted to hinder consolidation or evade the letter or the spirit of regulatory law.
- (2) Unprofitable railroad services should be replaced by cheaper alternative transport methods.
- (3) Railroads should be permitted to own and operate competing services, including water lines, but regulatory jurisdiction should be extended to water rates and practices in coastal, inter-coastal and lake shipping to relieve commerce of present chaotic conditions. Congress should

## REPORT OF THE COMMITTEE

promptly clarify its intention on the long-and-short-haul clause of the Transportation Act.

- (4) Government assumption of all or part of the costs of inefficient competing transport as a defense against monopoly is no longer warranted and should be abandoned. As a general principle inland waterways should bear all costs of amortization, interest, maintenance and operation of the facilities for their navigation. If they cannot bear such charges and compete with other forms of transport, they should be abandoned. The St. Lawrence Waterway should be tested by this rule of self-support and if it fails in that test the pending treaty with Canada should not be ratified. Governmental commercial operation of the actual facilities of transportation, such as barge-lines, should not be continued.
- (5) Automotive transportation should be put under such regulation as is necessary for public protection. It should bear its fair burden of tax but only on a basis of compensation for public expenditure on its behalf, plus its share of the general tax load. Neither tax nor regulation should be applied for any purpose of handicapping the march of progress for the benefit of the railroads.
- (6) Wages and working conditions of labor in transportation are determinable by established procedure in another forum and are not within the scope of this inquiry. There should be no heavier burdens on the railroads in employing labor to operate automobiles than on their competi-

## AMERICAN TRANSPORTATION PROBLEM

tors. In the railroads (as in other industries) rates, capitalization, salaries and wages must all follow changing economic conditions, but none should be sacrificed for the benefit of others.

- (7) Beacons, weather service and similar auxiliaries to air traffic should be maintained at public expense, and air transport should be encouraged during its development stage but we believe that every such service should ultimately pay its own way.
- (8) The Committee has no recommendations to make on pipe lines.

II. The policy of trying to appraise railroad properties on some selected basis of valuation and then saying that they are entitled to earn a fair return on this appraisal should be reconsidered. Where competition with trucks and other methods exists, it will determine rates. In other cases rates must be regulated, but the basis of costs of operation under efficient management is a better general guide than any attempt to preserve capital structures regardless of economic trends. We see no reason why the rate-making rule should not say in plain English that railroads are entitled to make a reasonable profit based upon costs of efficient operation and that they are not entitled to earnings merely to preserve present structures if overcapitalized.

III. The railroads should do much that they have not done to improve their condition without any Government help at all. They should promptly be freed of all unnecessary restrictions on the doing of it. It has been estimated that less than a 20 per cent increase in traffic

## REPORT OF THE COMMITTEE

would put most of them on an earning basis. In view of the narrowness of this margin of loss and of the very great savings possible in railroad operation, we regard their outlook as far from hopeless.

- (a) Railroads should adopt the competing methods of which they complain.
- (b) Railroads should co-operate to reduce competitive expense.
  - (1) Unnecessary services should be abandoned.
  - (2) Metropolitan terminals should be consolidated and unnecessary facilities scrapped.
  - (3) Circuitous haulage should be eliminated.
- (c) Financial management should be improved.
- (d) Transport methods and equipment should be brought up-to-date.
- (e) In view of what could be done by better management, the general outlook seems far from hopeless.

IV. Regulatory jurisdiction should be extended to the whole National transportation system but applied only to the extent necessary for public protection. The existing regulatory mechanism of the Interstate Commerce Commission is inadequate and should be improved by reorganization without expansion or increased expense.

### V. Emergency Recommendations.

- (1) Corporate reorganization can and should be facilitated by revision of the bankruptcy procedure.

## AMERICAN TRANSPORTATION PROBLEM

- (2) The recapture clause should be repealed retroactively.
- (3) The statutory rule of rate-making should be revised.
- (4) "Adequate security" does not necessarily mean "marketable collateral."

### B. THE REPORT

I. The railroad system must be preserved. Changed conditions require new policies but not abandonment of railroad regulation. The development of regulation and of new methods of transport make it unnecessary for Government further to create and foster competition with or among railroads as a defense against monopoly. That is an expensive and ineffective attempt to do indirectly what the Government has shown its ability to do directly. Regulation is sufficient. Government policies should be freed of any purpose either to favor or to handicap any form of transportation with relation to any other form. We cannot solve the problem on the theory upon which horses are handicapped in a race. In a fair field and no favor competition should be permitted to decide the result. Regulation should not attempt to "run the business" of transportation. It should concentrate on protecting the public against discrimination and extortion and on requiring the most efficient service at the lowest competitive cost.

At the foundation of our system of communication is the railroad web. It is the most important single element in our social and economic life. Its rapid extension enabled us to cover the greater habitable part of a continent with a cohesive form of liberal government of 125,000,000 people united in a common language, purpose and ideal and to maintain National solidarity

## REPORT OF THE COMMITTEE

through periods of stress. Both security and material welfare are involved in its continued efficient existence. The public interest is deeper than its investment or its need of good service. We are addressing a matter of National concern of the first magnitude. The railroad system must be continued and its efficiency preserved because of National necessity—economic, social and defensive.

*(a) Governmental fostering of competition is no longer necessary as a defense against monopoly.*

Above all other enterprises, railroads are, therefore, "affected with a public interest" and, under an ancient doctrine of our law, peculiarly subject to Government regulation. In earlier development, the railroad franchise created an effective and complete monopoly against which industrial and social segments had no defense. Rigorous governmental control was inevitable. It took two forms: first, an effort to foster competition among different railroads and to create and maintain, by Federal financial aid, other forms of competing transportation such as waterways; second, an intense regulatory control of the railroads themselves. The latter has been practiced long enough and sufficiently extended to prove that it dominates competition or any other influence as the government law of railroad practice. To the extent that the monopoly inherent in the railroad franchise was a menace, it is of the utmost importance to recognize that current railroad regulation safely controls it. Other safeguards have appeared. With increasing effect, new methods of transport are invading customary fields of railroad patronage. On a basis of economic efficiency, independent of Government aid, pipe lines, motor trans-



## AMERICAN TRANSPORTATION PROBLEM

port and airways are all making bids for business which the railroads can retain only by offering equivalent service at competitive rates. In these areas of competition, there is no longer complete monopoly. These two developments—perfection of regulation and appearance of competing methods—have created a new principle, viz:

*Insofar as government policies have been designed, by Federal intervention, to create and maintain competition with or among railroads as a defense against monopoly, they should be abandoned as wasteful and unnecessary. Regulation is sufficient.*

*(b) Regulation should provide a fair field and no favor.*

The railroads complain that they are shackled by regulation while their competitors are free and unduly advantaged by various forms of discrimination in their favor. To the extent that this is true, it is unfair. But it must be equally clear that, notwithstanding the deep public interest in our railroads, the Government cannot stand in the way of progress. Certain regulation of competitive methods is necessary. They cannot be permitted to escape their just tax burdens. They ought not to be artificially advantaged by subsidy or otherwise. But regulation of them must arise from its own necessity, and burdens upon them must derive from justice. The Government cannot, for the sake of the railroads, invent and apply to their competitors either regulation or burden on the theory upon which horses are handicapped in a race. A similar principle applies to railroads, and to the extent that they are handicapped by burdens for which the reason is obsolete or non-existent, Government

## REPORT OF THE COMMITTEE

has a positive duty to remove them. The guiding rule of the whole matter seems to us quite clear:

*With the danger of railroad monopoly going or gone and (whether going or gone) completely controlled by regulation, Government has a positive duty to see to it that neither the railroads nor their competitors are either unduly handicapped or unduly advantaged. Thereafter, in a fair field and no favor, economic competition must decide the question of survival under private ownership and operation.*

*(c) Regulation should not be abandoned. It should be put on the simple basis of public protection.*

There is respectable opinion that the development of effective competitive methods argues for the abandonment of all railroad regulation. The Committee cannot concur. Competition of parallel methods is as yet limited and localized and, while it is a powerful and growing force against monopoly, it does not relieve the necessity for railroad regulation and, because of other aspects of public interest and dependence already mentioned, in our opinion, it never will. On the contrary, we regard regulation as necessary in the interest of both the railroads and the public and we think that it should be extended to other forms of transportation.

But, for reasons stated hereinafter, more care must be taken to maintain managerial initiative. Regulation, whether of railroads or other forms should not attempt to "run the business" of transportation. It should concentrate on protecting the public against discrimination, extortion and other abuses of monopoly and on insuring the most efficient service at the lowest competitive cost.

## *AMERICAN TRANSPORTATION PROBLEM*

If these conclusions on general principles are correct, several changes in policy flow inevitably therefrom, viz:

- (1) **Parallel lines and systems are wasteful and unnecessary. Regional consolidations should be hastened and, where necessary, enforced, looking eventually to a single National system with regional divisions and the elimination of all excess and obsolete lines and equipment. Neither holding companies nor any other device should be permitted to hinder consolidation or evade the letter or the spirit of regulatory law.**

The policy of maintaining parallel and competing lines or systems on the theory that thus extortionate rates and discrimination may be restrained is wasteful and, of course, untenable under a system which controls rates and practices to the ultimate.

Duplication and unnecessary overheads, facilities and services, inherent in the present multiplicity of railroads, are very expensive and consolidations should be hastened. In plans for this, consideration should be given to creating a single efficient system (rather than competing systems) for each natural trade area, even to the ultimate extent of a single National network with regional divisions. It has been estimated by good authority that several hundred million dollars, or enough to pay interest on a large part of the outstanding railroad bonds, can be saved. Consolidation is so vital to the public welfare that, unless it is voluntarily accomplished within a reasonable time, the Government should compel it. Neither holding companies nor any other device should be permitted to hinder consolidation or to evade the letter or spirit of regulatory laws.

## REPORT OF THE COMMITTEE

- (2) Unprofitable railroad services should be replaced by cheaper alternative transport methods.

In view of the rapid development of automotive and other transport, there is no justification for maintenance by railroads of losing services and lines, and there devolves upon regulatory bodies and controlling interests something more than a negative duty to hasten their replacement by alternative methods, such as motor transport, which can render adequate service on a profitable basis in cases where rail transportation can operate only at a loss.

- (3) Railroads should be permitted to own and operate competing services, including water lines, but regulatory jurisdiction should be extended to water rates and practices in coastal, inter-coastal and lake shipping to relieve commerce of present chaotic conditions. Congress should promptly clarify its intention on the long-and-short-haul clause of the Transportation Act.

Restrictions on the ownership by railroads of waterborne, automotive or other competing services seems anomalous in a regime which has demonstrated its effective control of both rates and practices.

There are certain competitive situations where railroad rates between two ports are fixed by regulation and unregulated water rates are in chaos. This is disturbing to commerce and unfair to railroads. For this and other reasons, we believe that the jurisdiction of the regulating body should be extended to cover inter-coastal, coastal and lake commerce. We do not mean to recommend that water rates, based on actual lower costs, should be regulated upward to equalize traffic in favor

## AMERICAN TRANSPORTATION PROBLEM

of railroads. But we do believe that, in such a situation, some stabilizing influence should be applied in the interest of commerce generally as well as in fairness to railroads.

The law prohibits a railroad from charging less for a longer than for a shorter haul, over the same line, in the same direction, the shorter being included in the longer, but permits the Interstate Commerce Commission a discretion to relieve this restriction.

The law is not altogether clear and the Commission's interpretation and decisions have been the subject of long and persistent controversy. Grave consequences affecting wide economic areas are involved and the situation requires prompt clarification. Two pending suggestions by the Interstate Commerce Commission and one by the House Committee might contribute thereto. If jurisdiction of the Commission be extended to include inter-coastal commerce, or if a new rule of rate-making be adopted, the problem would be simplified. But if neither of these things is done, it is important that Congress act at once to declare its intention on this important application of the so-called "long-and-short-haul" controversy.

- (4) Government assumption of all or part of the costs of inefficient competing transport as a defense against monopoly is no longer warranted and should be abandoned. As a general principle inland waterways should bear all costs of amortization, interest, maintenance and operation of the facilities for their navigation. If they cannot bear such charges and compete with other forms of transport, they should be abandoned. The St. Lawrence Waterway should be tested by this rule of self-

## REPORT OF THE COMMITTEE

support and if it fails in that test the pending treaty with Canada should not be ratified. Governmental commercial operation of the actual facilities of transportation, such as barge-lines, should not be continued.

Creation and maintenance, by Government, of competing methods of transport, where the result is not (as in the Panama Canal) to provide more efficient service at lower cost, but only (as in some inland waterways) to maintain at the taxpayers' expense, more costly and less efficient service can no longer be justified as a defense against monopoly.

This Government has long been committed to the improvement and maintenance of shipways and of at least the outer harbors of ports accessible to great naturally navigable waterways. This involves expense, defrayed by taxation of the whole Nation, but applied at particular points, in the development of the instrumentalities of interstate and international commerce. To an extent, these waterways are the railroads' competitors and, as far as they go, these expenditures favor them. But in respect of accessories to naturally navigable waterways, such as ocean harbors and their approaches and the harbors and channels of the Great Lakes, this is a recognized function of government the world over, for naval as well as commercial purposes, and the railroads may be presumed to have been located, financed, and constructed with this in view. We have not heard it decried as an unjust handicap and with these remarks it passes from our consideration.

But, with inland waterways in general, the case is otherwise. For the sake of illustration, let us imagine a Federally constructed canal between, for example, To-

## AMERICAN TRANSPORTATION PROBLEM

peka and Oklahoma City—a stark ditch. If that canal fairly bore the burdens of its cost of construction and operation and yet could furnish transportation at an advantage over rails, nobody could complain, regardless of the extent to which it diverted railroad traffic. But if such was not the case and the canal could compete only if the public paid enough of these charges to undercut the cost of rails, it seems too obvious for argument that its creation and maintenance would be a direct impairment of the railroad system by public subsidy and distinctly inimical to the National interest.

Exactly the same principle of self-support seems applicable to any natural waterway upon which improvement and engineering devices are necessary to provide effective navigation. We think it is the very touchstone of the whole vexed problem and that every existing or projected improvement should be tested by its application. Any project which fails to answer that test should be abandoned, without hesitation, as an unwarranted waste of public money.

### *(a) The Great Lakes Waterway.*

The connecting channels of the Great Lakes were not navigable in the modern sense in their natural state, but the Great Lakes Waterway now stands as a fully created, implemented and efficient system of navigation which, in many respects, falls under the considerations governing Federal improvement of ocean ports, harbors and shipways.

### *(b) The St. Lawrence Seaway.*

There are obviously not at present any facilities for navigation, by ocean-going vessels, of the restricted wa-

## REPORT OF THE COMMITTEE

terways connecting the Great Lakes with each other and with the sea. The project to create such a shipway to the head of Lake Superior is a major engineering project of stupendous magnitude and very great cost. There is diversity of opinion as to whether the project is practicable. It is clear from our studies that the peculiar type of Lake bulk-carriers is far more efficient than any ocean freighter and from this fact that the area of economy is restricted practically to savings in cost of transshipment. But our studies also show that, in no reasonable probability, could this minor saving be enough to approximate even the carrying charges on this project.

In conformity with one of the general principles already announced, if this seaway could be shown to be the march of progress and if cheaper and more efficient transportation can thus be achieved, no barrier should be imposed against such a development. But we think that, before ratification of the pending seaway treaty with Canada bargaining away valuable American rights, this project should be fairly tested on the rule of self-support and, if it fails, the treaty should not be ratified.

### *(c) Government barge lines.*

Argument for and against Government operation of barge lines was strongly pressed before us. In this case, not only is the waterway itself provided and maintained at public expense, but the actual business of transportation thereon is in part financed by Government. The claim is made, and in our judgment sustained, that, if the methods of accounting used by the Government in respect to the Panama Canal were applied, they would reveal operating losses which are charged to the taxpayer. We think that actual Government operation of



## AMERICAN TRANSPORTATION PROBLEM

the facilities of transportation, wholly or partly at public expense, is unjust to the vast majority of people, and unwarranted by any argument that has come to our attention.

### *(d) Inland waterways in general.*

We recommend that the Congress give consideration to the formulation of a consistent policy on inland waterways. We think that the test of self-support should be applied to every existing or proposed inland waterway.

Unbearable tax burdens are generally recognized as a principal hindrance to economic recovery. Our waterway policy for the past few years has averaged a cost of about 100 million dollars annually and tremendous projects involving hundreds of millions are being considered. Our studies show no commensurate economic benefit resulting from much of this spending. In such circumstances, we think that a large part of this activity should be abandoned or at least suspended. It bears heavily on the taxpayer as a direct burden and even more heavily on the whole community in its contribution to the postponement of prosperity. At a time when the very stability of our system depends on the balancing of Federal expenditures with revenue and the sources of taxation seem almost dry, we find it difficult to justify this wasteful outpouring of hundreds of millions of dollars for results so barren of economic returns.

- (5) Automotive transportation should be put under such regulation as is necessary for public protection. It should bear its fair burden of tax but only on a basis of compensation for public expenditure on its behalf, plus its share of the general tax load. Neither tax nor regulation should be applied for

## REPORT OF THE COMMITTEE

any purpose of handicapping the march of progress for the benefit of the railroads.

The problem of the automobile is very difficult. Its roadbed is provided at public expense and it requires few, if any, terminal or similar facilities. It need not—as must railroads—load any part of its cost of operation with a charge for this construction and maintenance. It can make rates which do not involve charges for depreciation and amortization. It can pay whatever scale of wages and exact whatever hours of labor it can make effective. It can bargain closely and instantly and can walk away with business while the railroads are involved in a prescribed process before their regulating overseers. It is not attached to rails and can furnish swift door-to-door service which railroads as such cannot even approximate. It may be a common carrier, a contract carrier or a private operator. It moves intra-state and inter-state and may change its character in these matters instantly. It need not maintain continuous schedules and service. It can pick its business and is prone to take the cream of the traffic and leave the rest for the railroads, which must receive whatever is tendered. It can be permanently or sporadically in business and competition. With these advantages it has made inroads into railroad business and the difficulties are only partly suggested by this short recitation of complexities.

The problem thus presented has been regarded as serious in every important country and commissions similar to this Committee have been convened in several of them. The difficulty is not solely in the amount of tonnage diverted but resides also in the chaotic rate conditions presented to commerce in general and in many new necessities for public protection. It has been a matter of

## AMERICAN TRANSPORTATION PROBLEM

primary concern to our Interstate Commerce Commission, to State Commissions everywhere, to the Congress, to the highway users themselves, and to all who have given great study to the transport problem.

One thing is certain. Automotive transportation is an advance in the march of progress. It is here to stay. We cannot invent restrictions for the benefit of railroads. We can only apply such regulation and assess such taxes as would be necessary if there were no railroads, and let the effect be what it may.

On the question of whether public financing of roadbeds operates as a subsidy, there is a vast variety of circumstance. The automobile itself, its fuel, lubricants and operations are all heavily taxed. Does the total of these assessments bear its share of the general tax load and also sufficiently reimburse the public expenditure on the roads it uses? If it does, the circumstance that the charge is not comparable in amount to railroad costs of construction and maintenance of terminals and roadbeds is immaterial. The purpose is not to handicap automotive competition, but only to do justice.

These questions are of mixed State and Federal bearing and very difficult of determination. Both taxes and regulation on motor transport vary among the States and, while it has been strongly urged as the only solution, the Committee believes it impracticable to get uniformity by any plan for concert of State action. Our studies clearly indicate that in some States automotive vehicles do not bear their full burden of taxes. We think they should pay the carrying charges and cost of maintenance of the highways they use and also their share of the general tax load. The Interstate Commerce Commission recommends regulation of inter-state buses and ex-

## REPORT OF THE COMMITTEE

tension of their jurisdiction to include inter-state trucks. The Committee believes that the situation requires general Federal jurisdiction of motor transport. It recognizes that no such intricacy of regulation as characterizes railroad supervision can ever be extended to this field, but it is convinced that a broad measure of Federal and uniform State control can and should be applied.

A valuable advance is registered in the recent report of the Joint Committee of Railroads and Highway Users on the regulation and taxation of highway transportation recommending principles governing the subject which have been agreed to by these diverse interests. This kind of public-spirited cooperation is one of the most hopeful aspects of this difficult problem.

- (6) Wages and working conditions of labor in transportation are determinable by established procedure in another forum and are not within the scope of this inquiry. There should be no heavier burdens on the railroads in employing labor to operate automobiles than on their competitors. In the railroads (as in other industries) rates, capitalization, salaries and wages must all follow changing economic conditions, but none should be sacrificed for the benefit of others.

It is asserted in behalf of the railroads that certain restrictions imposed on them in the matter of hiring labor for truck and bus operation which automotive transport escapes, unfairly prejudice the railroads and that labor in this competing industry is not properly protected. The Committee thinks that the railroads should be under no greater restrictions in employing labor for automotive operation than are other automotive users but it would prefer to see equalization by improv-

## AMERICAN TRANSPORTATION PROBLEM

ing conditions in automotive labor rather than by impairing conditions of employment in railroads.

The Committee regards the particular wages and conditions of labor generally as beyond the scope of its inquiry. It merely offers the suggestion that, while Governments cannot and should not attempt to regulate the use by owners of their own automotive property, they might, in assessing taxes or issuing licenses, impose conditions of employment on vehicles not operated by owners.

The Committee believes that a permanent and universal liquidation and downward adjustment of values and incomes of all kinds have occurred in this country and that railroad rates, capital structures, salaries and wages must all respond to this generally changed condition, but that none should be sacrificed for the benefit of others.

A considerable number of obsolete rules governing overtime, hours constituting days' work, and restrictions on service, survive in the railroad wage structure. The Committee does not wish to see labor lose any of its hard-won improvement in conditions, but it believes that the just substance of them can be retained without adherence to obsolete forms, and that labor is as eager as railroads to modernize and simplify the structure of wages and working schedules.

We regret that the labor organizations did not see fit to avail themselves of the Committee's invitation to submit their recommendations on the general subjects of our investigation. We had hoped to have the benefit of their wide knowledge concerning railroad labor conditions and also their views on the best methods of protecting labor in railroads from conditions in competing

## REPORT OF THE COMMITTEE

methods and of improving conditions in the latter field. It is only fair to call attention to the fact that our material does not include any presentation by the labor organizations of any facts that might have seemed pertinent from their point of view.

- (7) Beacons, weather service and similar auxiliaries to air traffic should be maintained at public expense and air transport should be encouraged during its development stage but we believe that every such service should ultimately pay its own way.

Air service is diverting some traffic from railroads and threatens greater inroads. Here again the railroads are confronted with a development of human progress. It cannot be handicapped in their behalf. The most that they can ask is that it be not unfairly advantaged and, for reasons stated herein, we think that the real railroad remedy against this competition is to enter and help develop it.

Existing American airways are unquestionably subsidized at public expense. Various forms of flying-aids are maintained. Mail contracts, paying much more than receipts from air postage, are in effect with a deliberate purpose of subsidy and there is no doubt that lower rates on all air service are thus made possible at public expense.

The Committee believes that beacons and flying-aids are like lighthouses and navigation aids at sea and cannot be abandoned or charged for. The railroads were themselves subsidized in their development period. We cannot condemn Government aids to the inauguration of this valuable service. But, however much subsidy may be justified in a development period, we feel that every

## AMERICAN TRANSPORTATION PROBLEM

established transport service should ultimately be self-sustaining, that air service has a definite place, that it will inexorably take that place without the continuing necessity for the subsidy granted in the early stages of development and that the necessity for such aid is even now decreasing. It is of the utmost importance that such aid as is given should be fairly and economically distributed.

- (8) The Committee has no recommendation to make on pipe lines.

There are projects for a wider use of pipe lines as a transportation agency but at present they do not constitute a problem. They are not subsidized and they are effectively regulated. The subject has been ably and exhaustively studied by the House Committee on Commerce in a forthcoming report. From our own studies we do not recommend further present affirmative action.

II. The policy of trying to appraise railroad properties on some selected basis of valuation and then saying that they are entitled to earn a fair return on this appraisal should be reconsidered. Where competition with trucks and other methods exists, it will determine rates. In other cases rates must be regulated but the basis of costs of operation under efficient management is a better general guide than any attempt to preserve capital structures regardless of economic trends. We see no reason why the rate-making rule should not say in plain English that railroads are entitled to make a reasonable profit based upon costs of efficient operation and that they are not entitled to earnings merely to preserve present structures if over-capitalized.

Notwithstanding social and economic dependence on railroads—right or wrong—we have, since the begin-

## REPORT OF THE COMMITTEE

ning, relied on private initiative for their development and financial support. Profit is the only incentive to private investment. Unless the railroads are permitted reasonable earnings on the cost of efficient operation, there is no alternative to Government ownership and complete socialization of our railroad system. But that does not mean that railroads, any more than other industries, are entitled to a guarantee of earnings on their investments in property. In early periods of railroad development and unregulated monopoly, the profit incentive was over-emphasized and resulted in unconscionable abuse. Extravagant profits, or the hope of them, contributed to the rapidity of the extension of the system, but they also got a sharp rebuke in certain instances of attempted confiscatory rate regulation. The courts intervened with an opinion that rate-making must be limited by the right to a "fair return" on the value devoted to public service. Though originally probably intended as a protection against confiscation in individual cases, this principle, by a process of evolution, became a rule governing the general level of rates.

We think this rule should be abandoned. Nobody ever thinks of saying that the costs of bricks and mortar in an industrial plant should determine what it shall charge for its products. If it can keep its costs low enough to earn a profit on what its product is worth to the public in competition with other products, then it is worth from ten to twenty times what it can earn. If it cannot do that, it is as apt to be a liability as an asset.

In this sense, the present railroad rule puts the cart before the horse. It tends to ununiformity of results, perpetuation of debt and of obsolete and exaggerated capital structure, insufficiency of allowance for obsolescence and



## AMERICAN TRANSPORTATION PROBLEM

depreciation, inadequacy of surplus and reserves, and maintenance of unnecessary properties and facilities. The results are unjustifiably high rates in some cases and low rates in others. It evolved on the theory that, if not so restricted, the railroad monopoly would earn inordinately. That theory is becoming obsolete. The day is not far distant, if, indeed, it has not already arrived, when, even if wholly unregulated, some of our railroads may have difficulty in earning a "fair return" on asset values, no matter by what rules such values are defined. These competitive developments are inexorable. The public is entitled to all benefits of the march of progress and nothing will prevent that consummation. We think that the right principle of rate-making is as follows:

*Wherever there is fair economic competition it will decide the rate question and it should be permitted to do so freely. Where there is no such competition, the problem of rate regulation arises, but costs of service under efficient operation are a better general guide than some arbitrary determination of asset values.*

If, on that basis, a railroad cannot earn enough to support its capital structure, the remedy is not to raise rates. It is to revise the structure. And if on no reasonable revision can the capital structure be maintained, it is an economic misfit. Parts of it that cannot live should be abandoned and the rest either set up in a new system or consolidated with other groupings.

Fixed railroad indebtedness is not commonly retired. It is refunded. It is a universal rule of financing that any debt for purchase of productive facilities should be amortized during the lives of those facilities out of re-

## REPORT OF THE COMMITTEE

turns from their use. Railroads are not exempt from this well-established principle and rates should be subject to no restriction which contravenes it. A cause contributing to the present crisis is the unwieldy proportion of interest-bearing debt in railroad capitalization, much of it representing facilities long ago scrapped. We distinctly do not believe that past mistakes as represented by present unwieldy debt structures should be salvaged by increased rates. The present debt structure must be revised and losses written off. But, as to the future, we do think that rate-making should look to the retirement of new debt incurred for purchase of productive facilities during their lives and out of returns from their use.

The Interstate Commerce Commission petitions for "A simple rule which shall make it clear that, in regulating the general level of rates, we shall always keep in mind and be guided by the need for producing, so far as possible, revenues which are sufficient for the maintenance of an adequate National railway transportation system and also recognize the principle that the railroads may justly earn a surplus in time of prosperity to offset deficiencies in time of depression."

The Interstate and Foreign Commerce Committee of the House of Representatives recommends the following: "In the exercise of its power to prescribe just and reasonable rates the Commission shall give due consideration, among other factors, to the effect of rates on the movement of traffic, to the need, in the public interest, of adequate and efficient railway transportation service at the lowest cost consistent with the furnishing of such service; and to the need of revenues sufficient to enable the carriers, under honest, economical, and efficient management, to provide such service."

## AMERICAN TRANSPORTATION PROBLEM

It will thus be seen that those who have given the subject of rate-making the closest attention have abandoned the theory of making rates on some basis of evaluation. It is said that the principles just discussed are implicit in both of these suggested rules. If so, we approve them, but the Committee sees no reason why a rule for rate-making should not say in plain English that railroads are entitled to make a reasonable profit on costs of efficient operation and that they are not entitled to preserve over-capitalized corporate structures.

III. The railroads should do much that they have not done to improve their condition without any Government help at all. They should promptly be freed of all unnecessary restrictions on the doing of it. It has been estimated that less than a 20 per cent increase in traffic would put most of them on an earning basis. In view of the narrowness of this margin of loss and of the very great savings possible in railroad operation, we regard their outlook as far from hopeless.

The effect of protracted depression is to reveal the underlying trends of an era. While part of our transport difficulties are, like other troubles, no more than reflections of depression, continued traffic stagnation has uncovered organic difficulties. It by no means follows, however, that this condition was either caused, or can be cured by Government. In this time of extreme stress on everybody, the public has a right to expect the railroads to do what they can for themselves before they call on the rest of us and we are convinced that there is a great deal which the railroads have left undone. It has been said by experienced and informed observers that—because of enforced reduction in expense—a 20 per cent or even a lesser increase in traffic volume would put most

## REPORT OF THE COMMITTEE

of the railroads on an earning basis and that less than a 50 per cent increase would restore them to net earning levels of 1929. Passing the question of strict accuracy in these broad assertions, the fact is that, here as elsewhere, there has been such liquidation of the general extravagance of the 1929 delusion, that a very moderate movement on the upward business spiral would dissipate much of the seeming cloud on the solvency of many railroads. The Committee is not proceeding on conjectures of unwarranted optimism, but it does seem that, if the margin of loss is as scant as this, it is narrow enough to invite some robust action in railroad administration to improve earning statements—not by increased traffic or Government intervention—but by economies and improvements in operation, and perhaps by a reduction in rates to attract more business. That has been the universal action in sister industries and that is the view of some of the leading authorities in railroad management.

Against this view it is urged that railroads have been prevented by statutes and regulations from acting freely or that, where they have been permitted to act, restrictions legally imposed upon them as railroads have been extended to them in new fields. While we believe that this argument is too much emphasized, we have found some substance in this complaint. The Committee believes that railroads should be permitted to act along the lines suggested herein subject to no more and no heavier restrictions than their competitors and that the Congress and regulatory bodies owe them a positive duty to relieve them promptly of any handicap whatever in this regard.

## *AMERICAN TRANSPORTATION PROBLEM*

- (a) **Railroads should adopt the competing methods of which they complain.**

Much of the difficulty which the railroads ascribe to automotive and potential air and pipe line competition should and could have been relieved by an alert and aggressive railroad policy. We believe that if the railroads had regarded themselves more accurately as purveyors of transportation rather than as guardians of a monopoly, they would have been more alert to take advantage of every development in their field and that a more progressive policy might have turned to their own distinct advantage the very things they now regard as a burden and a threat.

Resort to Government as an alternative to self-help is to be deplored. The early transport pioneers did not go to Washington to have their ferries and steamboats protected against rails. They developed the rail service and became controlling figures in the new field. We think it is quite clear that the railroads have been distinctly remiss in not getting the most out of the new methods. It seems to us that the truck, in local and terminal service, motor drawn equipment on rails and highways in many cases, and the airplane, where rapid transit is required, afford a way to a beneficent transport revolution, that the railroads themselves owed a duty to the public to have led, and that the quicker they do so now, the better it will be for all concerned. After they have taken this logical step, we wonder whether they will be so eager to restrict these other forms of transportation as they are now.

## REPORT OF THE COMMITTEE

**(b) Railroads should cooperate to reduce competitive expense.**

**(1) Unnecessary services should be abandoned.**

We think that there has not been sufficient cooperation among the railroads. As an example, we quote from the Interstate Commerce Commission's 1932 report, P. 37:

"The expenses so chargeable to passenger and allied services for the year 1931 before taxes, rentals and interest were 110.82 per cent of the revenues from those services. For the freight service the corresponding figure was only 68.62."

The public is familiar with the spectacle of "crack" passenger trains shuttling back and forth across the country empty or nearly so and perhaps, also, with the explanation that this "is necessary to retain the competitive reputation for service"—in other words, for sales promotion or advertising. The Committee believes that agreements in good faith and within the law could relieve this expense. We think empty trains should either be filled by reduced rates or taken out of service. With our whole economic structure at stress, sympathy with such extravagance is difficult.

**(2) Metropolitan terminals should be consolidated and unnecessary facilities scrapped.**

Terminal expenses constitute an astonishing proportion of railway costs. Great economies, and much improved service, are possible through the use of trucks in terminal areas and further large savings by unification of railway and other terminal facilities. Railroads have insisted on separate terminals in metropolitan areas for purely competitive advantage. The resulting multiplic-

## *AMERICAN TRANSPORTATION PROBLEM*

ity has imposed high costs, poor service, and great waste. This burden upon shippers is indefensible. Reform is as necessary to modern metropolitan convenience as to railroad economy. It is impossible to deal effectively with the manifold problem of a modern city without a unified plan of development for all forms of transportation. This problem differs in different cities and there are legal and other difficulties involved, but much could be accomplished at once by cooperation among railroads and a complete solution would be greatly facilitated if all forms of transportation were placed under a single regulatory agency and if railroad consolidation were worked out along regional lines.

These improvements would entail wholesale scrapping of some facilities. We cannot follow the argument against the writing-off of obsolete, non-earning, and unnecessary properties. We think that there are thousands of miles of trackage and many other facilities, both in terminals and elsewhere, which serve no necessary purpose and which do not now earn and never can. They are handicaps on efficient operation and burdens on the public. Their elimination would reduce capital assets but it would result in lower rates, better earnings and improved service.

### **(3) Circuitous haulage should be eliminated.**

Circuitry in haulage to keep traffic on the rails of a single system entails great waste for which the Committee can find no sufficient excuse. As in all attempts to apply general principles to the infinite variety of circumstance in a great nation, a flat rule requiring freight to be routed by the most direct route, letting the revenue fall where it may, would result in some hardship, but

## REPORT OF THE COMMITTEE

the present practice leads to grotesque results. It is not easy to reduce the effect to figures, but the unnecessary haulage of freight has been estimated at a large percentage of total ton-mileage. Until the railroads are willing, by cooperation, to eliminate this kind of waste, it is difficult to share their apprehension of competing methods.

### (c) Financial management should be improved.

We have discussed our view of the contribution of existing rate-making rules to present financial distress, but we also question the policy of some railroads in applying too great a proportion of earnings to dividends and too little to the retirement of debt and the accumulation of surpluses and reserves—a practice which we regard as responsible, at least in part, for the existing unfortunate condition of some roads.

### (d) Transport methods and equipment should be brought up-to-date.

We acknowledge the restrictions on railroad initiative through regulation of appliances and on railroad resources through rate regulation. We are also aware of the progress that has been made in speed, quality of service, and increase in the radius of use of material equipment. Nevertheless, it cannot be fairly said that railroad advance in applied science is abreast of that in other industrial fields. For example, the improvements in Germany with stream-lined Diesel and electric trains of very light tonnage maintaining schedules of 96 miles per hour to offset motor transport, has no counterpart here. The Committee has not found it practicable to make exhaustive studies on this subject, but offers the suggestion that the Interstate Commerce Commission



## AMERICAN TRANSPORTATION PROBLEM

authorize, and the railroads set up, one or more central research and engineering organizations to which all railroads in certain groups shall contribute—their products to be available to all contributors.

- (e) In view of what could be done by better management, the general outlook seems far from hopeless.

Generally speaking, it must be recalled that, in railroads—almost alone among sister industries—rates remain at boom-time levels. Adjustment to new economic horizons lags. It is hard for us to believe that whole-hearted cooperation and vigorous application of contemporary principles of industrial management and control, within the various railroad companies themselves, along lines just discussed, would not do more than can Government or any other outside force to rehabilitate this most important of American industries.

In depths of depression, as at peaks of prosperity, fundamental values become distorted by the fog of gloom, on the one hand, and the rosy haze of hope on the other. These opportunities for aggressive policy and management coupled with at least some of our suggestions in aid of the transportation situation as a whole seem to us to indicate a distinctly hopeful (rather than a despairing) prospect for the railroads and we think that both regulating agencies and others having interest and influence in the railroads should act promptly to overcome what seems to us a degree of inertia in this regard.

IV. Regulatory jurisdiction should be extended to the whole National transportation system but applied only to the extent necessary for public protection. The existing regulatory mechanism of the Interstate Commerce Com-

## REPORT OF THE COMMITTEE

mission is inadequate and should be improved by reorganization without expansion or increased expense.

The work of the Interstate Commerce Commission is a contribution to the advancing science of political economy. One has only to read its most recent report to realize the sympathy and intelligence with which it addresses the problems confronting it. It has pioneered a complex subject and, if it has recently operated on principles which this Committee regards as in part obsolete, it is important to remember that they are statutory principles. We think that if critics would give more attention to the legal limitations upon the Commission and its own repeated recommendations thereon, they would find less ground for complaint.

The studies of the Committee clearly indicate the advisability of extension of regulatory jurisdiction to the whole transportation system. The Committee feels that a judicial type of organization, such as the Commission now has, is inappropriate to its present work and wholly inadequate to a wider jurisdiction. In extending its powers, it is not necessary to expand its personnel and expenditures. What is needed is to reorganize its functions, divide its work, and give it a form and method more appropriate to the tasks before it. At present they include rate-making, and that is at least a quasi-legislative function; decisions in conflicting causes, and that is distinctly judicial; and supervision of administration, and that is certainly executive. From another angle of analysis, we find it attempting to plan, and that is a staff duty, and to carry plans into execution, and that is purely operative. For all these inconsistent purposes, it must finally act in a body on many questions, with no sufficient latitude

## AMERICAN TRANSPORTATION PROBLEM

for delegation, and that is utterly inconsistent with any modern theory of operation except for legislative and judicial action of the very highest order.

The data before us indicate that (whatever may be the limits to which actual regulation or administration is extended) the necessity for planning and for comprehensive information on the whole transport problem is absolute. A cogent railroad argument is to the effect that the Government has regulated the initiative out of the railroads, and that by reason thereof, they are in their present plight. While there is a tendency to overemphasize this, three facts remain: first, that the Government, principally through the agency of the Commission, has for many years assumed to dominate railroad administration; second, that railroad policy and management are not abreast of sister industries; and third, that some railroads are in a perilous condition. Nobody can assume authority without accepting responsibility. The existing railroad condition speaks for itself to say that regulation by the Commission has left something to be desired.

The lack of incentive or authority in the Commission to plan and to act affirmatively is evident throughout its most recent report. It hopes that "efforts have been or will be made to bring the rival transportation agencies into some measure of agreement." It thinks that "no rival transportation agency should be given unfair advantage," but complains that "there is no adequate information . . . nor do we know of any comprehensive and definite plan for a cure . . ." It believes that the public "safety and convenience" should be protected by regulation of automotive agencies but asks for "a thorough investigation under authority of Congress." It says of regulation of port-to-port rates, "We have not in-

## REPORT OF THE COMMITTEE

vestigated this subject, but are convinced that it merits serious consideration by Congress." Speaking of restrictions on railroad ownership of water-carrier lines, "If the railroads wish this prohibition removed, they should so request the Congress without further delay. Until the reasons for such a change have been fully presented, we have no opinion to express upon it." On the question of stifling of railroad initiative, there is the suggestion that the *railroads* "ask the appropriate authorities for definite relief." Without unduly extending these quotations, it is fair to say that the whole report is eloquent of a somewhat passive attitude toward acknowledged evils and also of grave difficulties that have arisen from drastic regulation verging on administration by an authority which sits and hears but has only a limited scope in which to inquire and plan and act.

If, as we think it should, the regulating body should pass on railroad corporate reorganization, there would be a new and expert function for which we think the Commission is not now equipped or organized. There should be a separate department and an appropriate expert personnel for this work. This is an emergency matter.

The organization should be reformed without expansion to act along wider and more affirmative lines with less attempt to run the business of transportation and with more concentration on protection of the public, and maintenance of a healthy national transport system. It should have inquisitorial powers and duties to keep constantly abreast of changing developments and should be required to report annually to Congress on the state of the nation's whole transport system with its recommendations for betterment.

## AMERICAN TRANSPORTATION PROBLEM

Its activities should be reorganized with appropriate separate departments, with a chief at the head of each, for its legislative, executive and judicial functions, and for each major special function such as control of corporate reorganization. It should have also a planning department with a research staff and such other departments as experience indicates. Except in the exercise of its more important legislative and judicial functions, departmental hearings and decisions should be sufficient and action as a body should not be required. While all heads of departments should sit in council on basic policies and important problems, the body should have a vote only on the most important legislative and judicial decisions. Either one man, or at most an executive committee of three, should have exclusive responsibility and authority in all executive functions, and final decision in all but the more important legislative and judicial functions of the separate departments.

This form of organization and method divides, decentralizes and so speeds works, permits specialization yet assembles special views on general policies. It retains the advantage of the committee form for council but secures the advantage of a compact responsible group for action. All these attributes will be needed in the tasks inevitably confronting future transport regulation and only a few of them are available now.

### V. Emergency Recommendations.

- (1) Corporate reorganization can and should be facilitated by revision of the bankruptcy procedure.

Present railroad distress is sufficiently shown in the current report of the Interstate Commerce Commission, that 122 Class I railways failed to earn fixed charges in

## REPORT OF THE COMMITTEE

the first three quarters of 1932. The financial structures of many railroads carry too many inflexible charges and too few liquid surplus assets to survive protracted non-earning periods. This condition cannot be cured by increasing rates to salvage old mistakes or by lending Government money to preserve them. They require realistic reorganization in accordance with the facts. Some railroads can hope to survive only on drastic reorganization and scaling down of fixed obligations.

The Reconstruction Finance Corporation was created to tide over an emergency, in the hope of some recovery, but this use of Federal credit encountered a link between the emergent and the more permanent problems. The fixed charges of some roads are heavier than any fair prospect of restored traffic will bear. The corporation cannot pour public treasure into situations where, instead of temporarily supporting operations and loaning to maintain prudent interest payments, there is a wasteful delta of out-flowing streams of interest on unsupportable capital structures. That would postpone inevitable readjustments at public loss to no good purpose. There is need to reform these top-heavy structures to make them available for emergency aid before it is too late and the present legal mechanism is too slow and cumbersome to serve.

We recommend revision of bankruptcy procedure to permit prompt and realistic reorganization of overcapitalized corporate structures without destructive receiverships and judicial sales on depressed markets to the end that the railroads' justifiable borrowing requirements may be met with safety to the lender under adequate protection.

## *AMERICAN TRANSPORTATION PROBLEM*

- (2) The recapture clause should be repealed retroactively.

The so-called "Recapture Clause" of Section 15-a of the Transportation Act is based on an economic misconception and has proved to be an element of uncertainty in railroad financing. We join the recommendation of the Commission for its repeal "both for the future and retroactively."

- (3) The statutory rule of rate-making should be revised.

Reasons and suggestion for amending the present rate-making rule are discussed beginning at page 21.<sup>1</sup> As was there stated, rate-making cannot be made to preserve unsound capital structures or to "attract capital" regardless of what the service is worth but if the rule is put on a common-sense and forthright basis, we can approach the railroads' financial problem with more intelligence. While this is a permanent as well as an emergency reform we think it is important to a prompt and sound solution of the railroad problem. We understand that both the Interstate Commerce Commission and the House Committee on Interstate and Foreign Commerce recommend a change and regard its necessity as emergent. Indeed the Committee found no opposition to change in any of the evidence or representations before it.

- (4) "Adequate security" does not necessarily mean "marketable collateral."

The Reconstruction Finance Act requires "adequate security" for railroad loans. It should do so and we recommend no change in the law. As a matter of interpre-

<sup>1</sup> Page xxxviii in present volume.

## REPORT OF THE COMMITTEE

tation, however, if, upon reorganization of overcapitalized structures or on sound existing structures, a particular loan is sufficiently protected by priority of lien and reasonable prospects of earnings available to its priority of payment, we do not regard marketable collateral as a determining factor. In fact we believe that, with prompt improvement of capital structures where necessary, private capital will be available for necessitous railroad loans.

BERNARD M. BARUCH,  
*Vice-Chairman*

CLARK HOWELL  
ALEXANDER LEGGE

New York, February 13, 1933

### C. SUPPLEMENTAL REPORT OF ALFRED E. SMITH

While I am in substantial agreement with the greater part of the Committee's report, this supplementary memorandum states my conclusions in my own language, placing the emphasis where I think it belongs.

#### EMERGENCY ACTION

As to emergency action, I recommend the following:

1. The recapture clause of the Transportation Act should be repealed retroactively.
2. A debtor relief act with a special provision governing railroads, which will have for its object scaling down debts and composing differences without bankruptcy receiverships, should be passed, but its operation should be for the period of the emergency only, which for the purposes of this act should be declared to end on January 1, 1935.

After most careful consideration I cannot recommend



## AMERICAN TRANSPORTATION PROBLEM

as an emergency measure that there is immediate need of action by Congress to make a new statutory rule of rate making, nor that the present powers of the Reconstruction Finance Corporation to make loans to railroads should be extended or materially changed. Specifically I believe no useful purpose will be served at this time by an extension of the powers of the Reconstruction Finance Corporation with regard to railroads so that they can make additional loans without full collateral, upon the assumption that railroad rates will be adjusted in such a way that these loans are bound to be repaid.

Coming now to the basic troubles which afflict the railroads I have considered carefully the diagnosis offered by numerous groups and individuals, and the corresponding cures. No purpose would be served by extended analysis and comment because this subject is fully covered in the report of the staff. My conclusions are stated herein in summary form.

### THE RAILROAD'S COMPETITORS

As to the subject of competition by air, water, pipe and highway lines, I believe that the effect of competition of these lines upon the railroads has been exaggerated. Drastic regulation of competing services is not the solution of the railroad problem, and such regulation should be established only in the general public interest. Regulation is expensive. It is bureaucratic. Once established it expands, and it paralyzes private initiative without offering constructive leadership. I believe that the air lines should be left as they are at the present, with no more regulation than is now provided for. This is a new field, and the less private initiative is interfered with, the better it will be in the long run. The railroads

## REPORT OF THE COMMITTEE

had their day of freedom from restriction coupled with enormous government subsidies. That day is over and individual initiative in blazing trails and laying ties for railroad lines across the Rocky Mountains and the Sierras is no longer needed. Air lines are an infant industry and are entitled for the present to some government help without undue regulation.

The pipe lines are built. They serve a very limited purpose. They present no serious menace to the railroads. I see no advantage in extending regulatory control over them.

As to water transportation, with particular reference to inland waterways, I believe that government subsidies in this field should be curtailed, not primarily because they result in unfair competition with the railroads, but because these subsidies have not proved effective. Certainly the New York State Barge Canal cannot be said to compete with the existing railroads, because in spite of construction and maintenance by the State and free tolls, the barge canal carries so little freight that it presents no problem to the railroads. The New York State Barge Canal is an heirloom. Sentiment rather than common sense makes us keep it up. I am opposed at this time to the construction of the St. Lawrence Waterway, because it would be a waste of public funds. Present rail facilities are more than adequate to provide for everything which the proposed canal can accomplish. The cost of moving grain would not be lowered by this canal sufficiently to justify the enormous expenditures which it would involve; keeping in mind also, that this waterway would be open only for a part of the year, and that the railroads would have to be used anyway the rest of the year. I believe that a special investigation should

## AMERICAN TRANSPORTATION PROBLEM

be conducted into the Inland Waterways Corporation, to discover exactly what it costs the War Department to operate this corporation, and whether or not further expenditures for this purpose should cease.

As to competition by motor trucks and buses, the testimony given before us does not indicate to me that the competition is at this time as serious a menace to the railroads as they claim it to be. Interstate trucks and buses as yet carry only a comparatively small part of all freight and passengers. On the other hand, it is unquestionable that this form of transportation will soon be used more and more, because it is economical and efficient. In a number of cases, buses and trucks have actually relieved the railroads of burdens on short hauls, and have enabled them to cut down train service where these could not possibly pay.

Extravagant claims are made as to the penalizing of railroad as contrasted with highway transportation by taxes and by numerous regulations affecting service and labor. Trucks and buses are already substantially taxed through license, gasoline and oil taxes, and these are being steadily raised so that within a short time, in the course of normal events, the users of highways for commercial purposes will be paying their full share of the cost of construction, reconstruction and maintenance. The tendency in every state is to make them pay their way, and the Federal Government is already taxing them for gasoline. In fact, at the present time in many states of the Union, gasoline and license taxes are being diverted from highway maintenance and construction to other fields of government expenditure.

While there is much to be said for regulation of all common carriers on highways by the Interstate Com-

## REPORT OF THE COMMITTEE

merce Commission or some other federal agency, and by the appropriate state regulatory agencies, it should be noted, however, that such regulation cannot reach the individual farmer, merchant, and owner who is not a contract or common carrier. I believe that such regulation should for the present, be for the purpose of insuring responsibility, and fixing the physical standards for vehicles and for similar purposes, rather than for the fixing of rates. This is practically what the railroad and bus representatives themselves have recently agreed on. The plan for a federal license tax with a return to the several states of their respective shares, suggested by various witnesses, seems to me to be impractical, undesirable and at present unjustified. I believe that the railroads should go into the bus and truck business on a larger scale, and that they should be encouraged to do so by appropriate legislation.

### GRADE CROSSINGS

As to elimination of crossings at grade of highways and railroads, I believe that the railroads' share of the cost should be materially reduced. In many states the railroads' share is as high as 50%. This is unduly burdensome and unfair to the railroads, and it has naturally resulted in bitter opposition to elimination orders and the general slowing up of the crossing elimination program. This reduction cannot, however, be accomplished by federal legislation or fiat. It must be brought about by persuasion in the several states.

I cannot subscribe to the recommendation made to the Committee that Congress should fix a maximum rate of taxation on railroad property beyond which any state and local levies would be invalid.

## AMERICAN TRANSPORTATION PROBLEM

### VALUATION

Coming now to valuation, I have not been able to give this subject sufficient study even to attempt a solution. The questions involved are exceedingly intricate. Members of Congress and experts outside of the government have been studying them for years without coming to a satisfactory conclusion. From a superficial study, I am not entirely satisfied that the prudent investment theory is unworkable. The reproduction cost theory is obviously obsolete and must be discarded. I cannot subscribe to the idea of basing railroad rates on ability to attract new capital, on the present cost theory or on the theory of the natural rule of survival. I doubt whether the courts would sustain or the public tolerate the survival theory. The present cost theory would tend to put the seal of approval on existing chaotic and wasteful railroad organization. The theory of fixing rates to attract new capital begs the whole question. It starts with a conclusion and adjusts all the facts to meet it. Moreover, this theory would defeat itself because the public would not be able to pay the high rates which it would bring about. In the end there would be less traffic and less revenue than before. Moreover, even if the public were able to pay the bill, I believe that the adoption of this theory would perpetuate bad management, write up values of many railroad securities beyond their actual worth, and take away the incentive to consolidation and good management.

A new principle of valuation has recently been proposed by the Committee on Interstate and Foreign Commerce of the House of Representatives which seems to me to have considerable merit, but which is in such general language that it is difficult to see how it can be made

## REPORT OF THE COMMITTEE

the basis for the scientific determination of rates. It seems to me, however, that this is a subject which Congress should decide.

Whatever principle is adopted, I am satisfied that the general public will not tolerate writing up values or increasing rates merely upon the theory that a great many railroad securities are held by savings banks, trustees and insurance companies as security for widows, orphans or other beneficiaries of trust. It must be recognized that many railroad bonds are worth less than par in the light of conditions entirely separate from the depression, and that railroad stocks have declined even more in value. These assumptions are based upon any common sense theory of true valuation, whatever it may be. Similarly, I do not believe the public will approve the proposal that railroad rates should be high enough to retire a substantial part of outstanding bonds, because this will be regarded as just another way of attempting to give present bonds artificial values.

### THE INTERSTATE COMMERCE COMMISSION

Taking up now the general question of federal regulation, we are all agreed that effective regulation is an indispensable feature of the solution of the transportation problem. I find, however, little in recent history to justify the continuance of the Interstate Commerce Commission as now organized. This implies no criticism of its members. They have attempted to function under an obsolete and unworkable law, and in the face of conditions which call for intelligent planning and leadership as distinguished from endless debate on details. Everyone admits that more and more of the work of the board must be delegated anyway, and if this is so, the question

## AMERICAN TRANSPORTATION PROBLEM

arises as to why a board is needed at all. I believe that too much emphasis has been placed on the judicial functions of the Interstate Commerce Commission, especially on valuation and rate making, and too little on planning and administration. The complete break-down of the present valuation formula has left the Commission in a condition which would be laughable if it were not so serious. The scrapping of the present formula opens up some very interesting questions for taxpayers. What, for instance, becomes of the tons of statistics and other data collected on the basis of the old formula? What of the payroll army of federal commissioners, counsel, experts and clerks? What of the wasted time of local officials, railroad representatives, farmers, business men and commercial organizations? Suppose that just a little common sense had been substituted for all this scientific hash, this maze of regulation and red tape? I favor the abolition of the Interstate Commerce Commission and the creation in its place of a new department of transportation headed by one man, or a one man bureau head in the Department of Commerce determining policies with the approval of the Secretary of Commerce. What we need is a new transportation system, not endless hearings on a system that does not work.

### THE FUNDAMENTAL PROBLEM

I am convinced that the fundamental problem of the railroads is that of nation-wide consolidation and reorganization to reduce costs and rates, and to write off losses. The era of railroad pioneering and competition is over. The roads must reduce overhead and operating expenses. They must scrap unnecessary, competing and weak lines. They must get rid of obsolete equipment.

## REPORT OF THE COMMITTEE

They must cut out unnecessary services. They must use trucks and buses, eventually air transportation and, if necessary, waterways and pipe lines as a supplement or substitute for rails wherever these new forms of transportation are more economical. The establishment of a limited number of strong regional railway systems would be a start in the right direction. Even this will leave a certain amount of wasteful and unnecessary competition.

Whatever may be the basis of valuation and rate-making, there must be a scaling down of many railroad securities. I believe that the banks, trust companies, insurance companies and other holders of railroad securities must be realistic about this phase of the problem. The public will not stand for making them a preferred class of investors, who must get a hundred cents on a dollar, irrespective of the true value and condition of the business they have invested in, when values in all other fields are being readjusted and cut down.

The question for the railroad executives, directors and security holders to decide is whether the steps taken in this direction should be compulsory or voluntary. To date voluntary regional consolidation under the auspices of the Interstate Commerce Commission has made little progress. The question has been raised whether compulsory consolidation is constitutional. As distinguished an authority as the late Senator Cummins thought it was, but there is no decision of the United States Supreme Court squarely on this subject. There is much to be said for the theory that we are moving inevitably toward one national railroad system. Upon this theory, the major railroad systems might well give serious consideration to the appointment of some sort of an im-



## AMERICAN TRANSPORTATION PROBLEM

partial chairman, arbitrator or director-general to coordinate their present activities, and to prepare a plan of permanent consolidation.

If the railroads show no willingness to reorganize, reorganization can surely be brought about by some form of condemnation or eminent domain. I believe that the railroads will be unsuccessful in attempts to maintain their present physical, operating and financial structure at the expense of the general public by penalizing competitors and raising competing transportation costs, inflating securities, raising rates, limiting taxation by states and municipalities through federal legislation, borrowing government money without adequate security and other like devices. Similarly, attempts to bring about economy largely at the expense of railroad labor will prove unsuccessful unless this is part of a logical general reorganization in the interest of the public. Undoubtedly many wasteful and unjustifiable regulations have been made governing railroad wages, hours and conditions of labor, and others which, however admirable in themselves, the country simply cannot afford today, but the railroads cannot expect public support in changing these regulations merely as a means of retaining and perpetuating other conditions which are equally wasteful. They cannot expect to make labor the only scapegoat.

Those who are responsible for present railroad management need not complain of radical or drastic governmental action in the near future if they are unwilling even to attempt to meet their problems in a bold, forthright way through their own initiative and cooperation. They have an unrivalled opportunity to do themselves and the country a great service. They should have the

## REPORT OF THE COMMITTEE

guidance and help of the national and state governments in this effort.

ALFRED E. SMITH

### APPENDIX

#### LETTER OF INVITATION

HON. CALVIN COOLIDGE,  
HON. ALFRED E. SMITH,  
MR. BERNARD M. BARUCH,  
MR. CLARK HOWELL,  
MR. ALEXANDER LEGGE.

*Gentlemen:*

The present financial position of the railroads of the United States is a matter of grave concern. Collectively the greatest and most important industry of our country, the railroads have operated in this year at staggering deficits. Only wise and timely Federal aid has averted the financial breakdown of important systems.

This situation touches every citizen. It affects directly the security of wage and employment of the 1,500,000 railway workers. It affects equally the many and important industries supplying railway equipment and supplies. It touches the financial problem of local, State, and National government, to the support of which the railroads contribute over \$300,000,000 annually in taxes. It has given rise to a severe decline in the value of the \$19,500,000,000 of railroad obligations and shares, and has occasioned concern to institutions which hold such obligations among their assets, representing in part the savings of that thrifty portion of our population which is to be found among the policyholders of insurance companies and the depositors in savings banks. The relief that the present emergency has made it nec-

## *AMERICAN TRANSPORTATION PROBLEM*

essary to grant to the railroads is a drain on the Federal treasury, and any ultimate loss will constitute a burden on every taxpayer.

The present deplorable position of the railroads is not due wholly to the stagnation of traffic resulting from the long-continued depression. Many of the present ills are due to governmental, financial, labor, and management policies, some wrong in conception, some wrong in application, and others rendered obsolete by radically changed conditions. As a result, the railroads have not been in a position to adjust themselves, as well as have other industries, to present conditions.

There are many disagreements as to causes, many disagreements as to remedies, but unanimous agreement as to the urgent necessity of some thorough-going solution of the problem. No solution, however, will be effective unless the problem of the railroads is considered as an integral part of the entire transportation problem of the United States, whether by rail, highway, waterway, pipeline, or air.

Every industry in the country is entitled to fair treatment—the railroads no less than the others. The public interest must certainly be protected, but regulation should not place the railroads at a hopeless disadvantage with competing agencies and destroy flexibility of operation and management initiative. The railroad workers are entitled to a fair wage and the greatest possible security of employment. The holders of railroad securities are entitled to a fair and stable return on the true value of their investment.

But more important than the interests of any one group, the people of the United States are entitled to the most effective and economical form of transporta-

## REPORT OF THE COMMITTEE

tion to meet their various needs, whether by land, water, or air. Each form of transportation should be unhampered to provide effectively at a reasonable cost and at a fair profit the service for which it is best fitted. No form of transportation should be favored either at the expense of another agency or at the ultimate expense of the people of the United States.

We, the undersigned organizations, representing many of the interests concerned, believe that there is no more important present task than a thorough and satisfactory solution of the railroad problem, as an integral but the most urgent part of the entire transportation problem. We beg that you examine all phases of the problem and recommend a solution which, with due regard for the public interest, will ensure an opportunity for the railroads of this country to operate on a business basis, to the end that there may be a stabilization in employment of wage-earners and in the values of investments made in behalf of insurance policyholders and savings bank depositors, and a general enhancement of the prosperity of the country which to so great a degree depends upon the prosperity of the railroads and of the many lines of business which in turn depend upon them.

### UNDERSIGNED ORGANIZATIONS

Aetna Life Insurance Company  
Connecticut General Life Insurance Company  
The Connecticut Mutual Life Insurance Company  
The Equitable Life Assurance Society of the United States  
The Guardian Life Insurance Company of America  
John Hancock Mutual Life Insurance Company  
Home Life Insurance Company

*AMERICAN TRANSPORTATION PROBLEM*

The Lincoln National Life Insurance Company  
Massachusetts Mutual Life Insurance Company  
Metropolitan Life Insurance Company  
The Mutual Benefit Life Insurance Company  
The Mutual Life Insurance Company of New York  
New England Mutual Life Insurance Company  
New York Life Insurance Company  
The Penn Mutual Life Insurance Company  
Phoenix Mutual Life Insurance Company  
Provident Mutual Life Insurance Company of Philadelphia  
The Prudential Insurance Company of America  
The Travelers Insurance Company  
National Association of Mutual Savings Banks  
Investment Bankers Association of America  
Railway Business Association  
American Central Insurance Company  
Phoenix Insurance Company of Hartford  
Connecticut Fire Insurance Company  
Hartford Fire Insurance Company  
Hartford Accident & Indemnity Company  
National Fire Insurance Company of Hartford  
Aetna Insurance Company  
Caledonian Insurance Company of Scotland  
Columbia Casualty Company  
Commerce Insurance Company of Glens Falls  
Glens Falls Insurance Company  
The Continental Insurance Company  
Fidelity-Phenix Fire Insurance Company  
American Eagle Fire Insurance Company  
Maryland Insurance Company of Delaware  
Niagara Fire Insurance Company  
First American Fire Insurance Company

*REPORT OF THE COMMITTEE*

The Fidelity and Casualty Company of New York  
Eagle, Star & British Dominions Insurance Co. Ltd.  
Lincoln Fire Insurance Company of New York  
Fireman's Fund Insurance Company  
Home Fire and Marine Insurance Company  
Occidental Insurance Company  
Fidelity and Guaranty Fire Corporation  
Glens Falls Indemnity Company of Glens Falls  
Great American Insurance Company  
Insurance Company of North America  
Norwich Union Fire Insurance Society Limited  
The Eagle Fire Company of New York  
Norwich Union Indemnity Company  
Northern Assurance Company, Ltd. of London  
London & Scottish Assurance Corp., Ltd.  
Phoenix Assurance Company, Limited  
Imperial Assurance Company  
Columbia Insurance Company  
United Firemen's Insurance Company  
The Union Marine & General Insurance Company, Ltd.  
The Pennsylvania Fire Insurance Company  
Security Insurance Company of New Haven  
Springfield Fire & Marine Insurance Company  
Sentinel Fire Insurance Company  
Michigan Fire & Marine Insurance Company  
New England Fire Insurance Company  
SVEA Fire and Life Insurance Company  
Hudson Insurance Company  
Skandia Insurance Company  
Columbia University  
Harvard College  
The University of Chicago  
Yale University

## SELECT BIBLIOGRAPHY

### AIR TRANSPORT

#### 1. Books, Pamphlets, and Documents

- Kennedy, Thomas Hart, *An Introduction to the Economics of Air Transportation*. Macmillan, 1924.
- Pynchon and Co., *The Aviation Industry*, New York, 1929.
- Rohlfing, Charles C., *National Regulation of Aeronautics*, University of Pennsylvania Press.
- Security Owners' Association, Inc., *A Study of Transportation by Airways as Related to Competition with Rail Carriers in Continental United States*, New York, 1932.
- U. S. 72 Cong. 1 sess., *Investigation of the U. S. Postal Air Mail Service*. Prepared for Committee on Post Offices and Post Roads, 1933.

#### 2. Periodical Publications

- Air Commerce Bulletin* (bimonthly), Department of Commerce.
- Aviation* (monthly), McGraw-Hill, New York.
- Official Aviation Guide* (monthly), The Official Aviation Guide Co., Inc., Chicago.
- U. S. National Advisory Committee for Aeronautics, *Bibliography of Aeronautics*, 1906—(annual since 1922), G.P.O.
- , *Annual Reports*.
- U. S. Postmaster General, *Annual Reports*.

### HIGHWAY TRANSPORT

#### 1. Books, Pamphlets, Articles, and Documents

- Agg, T. R., *American Rural Highways*, McGraw-Hill, 1920.
- , and Brindley, John E., *Highway Administration and Finance*. McGraw-Hill, 1927.
- American Bankers' Association, *Automotive Transportation and the Railroads*, N.A.C.C., 1927.
- "The Automobile, Its Province and Problems," *Annals of Am. Acad. of Pol. and Soc. Science*, November, 1924.

- American Electric Railway Association, *The Urban Transportation Problem*, New York, 1932.
- Bateman, J. H., *Highway Engineering*, Wiley, 1928.
- Blanchard, A. H., and Morrison, R. L., *Elements of Highway Engineering*, New York, 1928.
- Bratschi, Robert, *Railway and Motor Transport*, International Transport Workers' Federation, Amsterdam, 1930.
- Brousseau, A. J., *Highway Finance*, Address Delivered at the Annual Meeting of the International Chamber of Commerce, Amsterdam, July, 1929.
- , *Motor Transportation*, N.A.C.C., 1929.
- Chamber of Commerce of the United States of America, *Referendum No. 61 on the Report of the Special Committee on City Passenger Transportation*, Washington, 1932.
- Chatburn, George R., *Highways and Highway Transportation*, Crowell, 1923.
- General Motors Corporation, *National Motor Truck Analysis*, Detroit, 1930.
- Great Britain, Ministry of Transport, *Report of the Conference on Rail and Road Transport*, London, 1932.
- Grupp, G. W., *Economics of Motor Transportation*, Appleton, 1924.
- International Road Congress, *Proceedings of the Sixth Congress*, Washington, 1930.
- Joint Committee of Railroads and Highway Users, *Regulation and Taxation of Highway Transportation*, New York, 1933.
- Lilienthal, D. E., and Rosenbaum, I. S., *Motor Carrier Regulations by Certificates of Necessity and Convenience*, N.A.C.C., 1926.
- Meighan, John M., *Motor Bus Laws and Regulations*, National Association of Motor Bus Operators (mimeographed), Washington, 1932.
- Mississippi Valley Railroads' Research Committee, *The Validity of State Statutes Regulating the Operation of Motor Vehicles*, Louisville, 1932.
- National Association of Motor Bus Operators, *The Motor Bus Tax Burden*, Washington, 1930.



- National Association of Railroad and Utilities Commissioners, *Report of Committee on Motor Vehicle Transportation*, Hot Springs, Ark., 1932.
- (Same title), Richmond, Va., 1931.
- National Automobile Chamber of Commerce, Motor Truck Committee, *Regulation of the Contract Motor Carrier under the Constitution*, New York, 1931.
- National Industrial Conference Board, *The Taxation of Motor Vehicle Transportation*, 1932.
- Sandage, C. H. and Nelson, R. W., *Motor Vehicle Taxation for Highway Purposes*, Iowa Studies in Business, State University of Iowa, 1932.
- "The Traffic Census and its Use in Deciding Road Width," *Public Roads*, July, 1921.
- Trumbower, H. R., *Economics of Highway Transportation*, N.A.C.C., 1926.
- U. S. Bureau of Foreign and Domestic Commerce, *Motor Freight Transportation*, Domestic Commerce Series No. 66, 1932.
- U. S. Bureau of Public Roads, Reports of Surveys of Transportation on State Highway systems: *Ohio*, 1927; *Vermont*, 1927; *New Hampshire*, 1927; *Pennsylvania*, 1928; *Eleven Western States*, 1930.
- United States Chamber of Commerce, *Highway Finance Report*, Washington, 1932.
- U. S. 69 Cong. 1 sess., *Interstate Commerce by Motor Buses Operating or to Operate as Common Carriers of Passengers for Hire over Routes, Part or Whole of Which are through Interstate Tunnel now being Constructed under Hudson River between New York, N.Y., and Jersey City, N.J., and over Interstate Bridge now being Constructed across Delaware River between Philadelphia, Pa., and Camden, N.J.*, Hearings on S. 3894, before Committee on Interstate Commerce, 1926.
- U. S. 69 Cong. 1 sess., *Interstate Commerce by Motor Vehicles Operating as Common Carriers on the Public Highways*, Hearings on S. 1734 before Committee on Interstate Commerce, 1926.

- U. S. 71 Cong. 1 sess., *Regulation of Motor Carrier Transportation*, Hearings on S. 2793 before Committee on Interstate Commerce, 1932.
- "Urban Aspects of Highway Finance," *Public Roads*, January, 1926.

### 2. Periodical Publications

- American Association of State Highway Officials, annual reports, Washington.
- American Highways* (quarterly), Amer. Assoc. of State Highway Officials, Washington.
- Automotive Industries* (weekly), W. Chilton Class Journal Co., Philadelphia.
- Bus Facts of 1932* (annual), National Association of Motor Operators, Washington.
- Bus Transportation* (monthly), McGraw-Hill.
- Facts and Figures of the Automobile Industry* (annual), National Automobile Chamber of Commerce, 1932.
- Good Roads* (weekly), Burton Pub. Co., 53 W. Jackson Blvd., Chicago.
- Highway Education Board, *Highways Handbook*, Washington, 1929 (latest published).
- Highway Tax Costs* (annual), National Automobile Chamber of Commerce.
- National Research Council, Highway Research Board, annual *Proceedings*, Washington.
- Power Wagon* (monthly), Power Wagon Pub. Co., Chicago.
- Public Roads* (monthly), U. S. Bureau of Public Roads, Washington.
- Western Truck Owner* (monthly), Keystone, Los Angeles.
- Public Roads* (monthly), Bureau of Public Roads of the U. S. Department of Agriculture, 1932.

### PIPE LINES

- Federal Trade Commission, *Pipe Line Transportation of Petroleum*, 1916.
- , *Petroleum Industry—Prices, Profits and Competition*, 1928.

- , *Petroleum Industry in California, Parts I and II*, 1922.
- , *Report on Pipe-Line Transportation of Petroleum*, 1916.
- Fraser, C. E., and Doriot, G., *Analyzing our Industries*, chapter on Petroleum, McGraw-Hill, 1932.
- Lamp, Irwin, "The Pipe Line Era," *Pipe Line News*, June, 1932.
- Pogue, Joseph E., "Economics of Pipe Line Transportation in the Petroleum Industry," reprinted serially in *Pipe Line News*, 1932.
- U. S. 72 Cong. 2 sess., *Oil Pipe Line Industry*, Report from House Committee on Interstate and Foreign Commerce (in press), 1933.
- U. S. Interstate Commerce Commission, *Selected Items from the Annual Reports of Pipe Line Companies* (mimeographed).

## RAILROADS

## 1. Books, Pamphlets, Articles, and Documents

- American Short Line Railroad Association, *Special Report of the Executive Board to the Members*, relating to danger of government having to take possession of some of the railroads, Washington, 1932.
- Acworth, W. M., *Historical Sketch of State Railway Ownership*, J. Murray, London, 1920.
- Aitchison, C. B., *A Century of Transportation Problems*, G.P.O., 1926.
- , *Interstate Commerce Acts Annotated*, 5 volumes, 1930.
- Bogen, Jules I., *Analysis of Railroad Securities*, Ronald Press, 1928.
- Bonbright, J. C., *Railroad Capitalization*, Columbia University Press, 1920.
- Buck, S. J., *The Granger Movement*, Harvard University, 1913.
- Bureau of Railway Economics, *Capital Expenditures and Purchases in the Railway Industry*, Miscellaneous Series No. 48, Washington, 1929.
- , *Government Ownership of Railways*, A List of Publi-

- cations 1917-29, Bulletin No. 49, Supplement to Bulletin No. 62, Old Series, Revised 1917, 1929.
- , *Railroad Consolidation*, A List of References, Special Series No. 52, 1930.
- , *The Railways and Economic Progress*, Miscellaneous Series No. 50, 1929.
- Chamber of Commerce of the United States of America, *Referendum No. 62 on the Report of the Special Committee on Railroads*, Washington, 1932.
- Cunningham, William J., *American Railroads: Government Control and Reconstruction Policies*, Shaw, 1922.
- Daniels, Winthrop M., *American Railroads: Four Phases of their History*, Princeton University Press, 1932.
- Dixon, Frank Haigh, *Railroads and Government*, Scribner's, 1922.
- , and Parmelee, J. H., *War Administration of the Railways in the United States and Great Britain*, Oxford University Press, 1919.
- Dudley, A. S., *The Economics of Railroad Valuation*, J. J. Collins & Sons, Chicago, 1928.
- Duncan, Kenneth, *Equipment Obligations*, Appleton, New York, 1924.
- Dunn, S. O., *Regulation of Railways*, Appleton, 1919.
- Ellingwood, A. R. and Coombs, Whitney, *The Government and Railroad Transportation*, Ginn & Co., 1930.
- Ely, Owen, *Railway Rates and Cost of Service*, Houghton Mifflin, 1924.
- Frederick, J. H., *Federal Regulation of Railway Securities under the Transportation Act of 1920*, Westbrook Publishing Co., Philadelphia, 1927.
- , Herring, J. M. and Hypps, F. T., *Regulation of Railroad Finance*, Simmons-Boardman, New York, 1930.
- Grodinsky, Julius, *Federal Regulation of Railway Security Issues*, Univ. of Penn., 1925.
- , *Railroad Consolidation*, Univ. of Penn., 1930.
- , and Johnson, Emory R., *Railroad Consolidation*, Appleton, 1930.
- Herring, James M., *The Problem of Weak Railroads*, University of Pennsylvania Press, 1929.

- Hines, Walker D., *War History of American Railroads*, Yale University Press, 1928.
- Hinshaw, David, and Albig, W. E., *Stop, Look and Listen: Railroad Transportation in the United States*, Doubleday, 1932.
- Huang, Hsien-Ju, *State Taxation of Railways in the United States*, Columbia University Press, 1928.
- Hypps, Frank T., *Federal Regulation of Railroad Construction and Abandonment under the Transportation Act of 1920* (thesis), Univ. of Penn., 1929.
- Interstate Commerce Commission (compiler), *The Interstate Commerce Act, as amended*, 1929.
- , *Railways in the United States in 1902; A Twenty-two Year Review of Railway Operations; A Forty-Year Review of Changes in Freight Tariffs; A Fifteen-Year Review of Federal Railway Regulation; A Twelve-Year Review of State Railway Taxation*, Washington, 1903.
- Jackman, William T., *Economics of Transportation*, A. W. Shaw, 1926.
- Johnson, Emory R. and Van Metre, Thurman W., *Principles of Railroad Transportation*, Appleton, 1923.
- Joint Commission of Agricultural Inquiry, *Transportation* (Vol. III of the Commission Report), 1921.
- Jones, Eliot, *Principles of Railway Transportation*, Macmillan, 1924.
- Locklin, David P., *Regulation of Security Issues by the Interstate Commerce Commission*, University of Illinois Studies in the Social Sciences, 1927.
- , *Railroad Regulation since 1920*, McGraw-Hill, 1928.
- Loree, L. F., *The Railroads, Their Relation to the Causes and Cure of the Commercial Depression* (before Senate Committee on Finance), New York, 1933.
- , *Railroad Freight Transportation*, Appleton, 1922.
- , *Save the Railroads, a Proposed Revision of the Interstate Commerce Law*, privately printed, New York, 1932.
- Lust, Herbert C., *Consolidated Digest of Decisions under the Interstate Commerce Act*. H. C. Lust Co., Fowler, Ind., 1925.

- MacVeagh, Rogers, *The Transportation Act of 1920*. Holt, 1923.
- Miller, S. L., *Railway Transportation, Principles and Point of View*, Shaw, 1924.
- National Industrial Conference Board, *The Consolidation of Railroads in the United States*. The Board, New York, 1923.
- New England Railroad Committee, *Report to the Governors of the New England States*, 1931.
- Oldham, John E., *A Plan for Railroad Consolidation*, Cosmos Press, Cambridge, 1921. (Also published by the Investment Bankers' Association of America.)
- Partington, J. E., *Railroad Purchasing and the Business Cycle*, Brookings Institution, 1929.
- Presentation in behalf of the Chesapeake and Ohio Railway Company Shop Craft Employees*, before the Federal Arbitration Board. Richmond, 1928.
- Railroad Wage Commission, *Report to the Director General of Railroads*, U. S. Railroad Administration, 1918.
- Railway Business Association, *Trends in the Passenger Service and Traffic of the Class I Steam Railways of the United States, 1920-32*, Chicago, 1932.
- Railway Security Owners' Association, *A Study of the Highway Situation as Related to Motor Truck Competition with Rail Carriers in Eastern United States*, 1932.
- Ripley, W. Z., *Railroads, Finance and Organization*, Longmans, Green & Co., 1915.
- , *Railroads, Rates and Regulation*, Longmans, Green & Co., 1912.
- Robins, E. C., *The Railway Conductors*, Columbia Univ. Press, 1914.
- Sharfman, I. L. *The American Railroad Problem*, Century, 1921.
- , *The Interstate Commerce Commission*, Commonwealth Fund, New York, 1931. 4 Vols. (Volumes III and IV not yet published.)
- Splawn, Walter M. W., *Consolidation of Railroads*, Macmillan, 1925.

- , *Government Ownership and Operation of Railroads*, Macmillan, 1928.
- U. S. 67 Cong. 1 sess., *Bills to Amend the Transportation Act of 1920*, Hearings before the Committee on Interstate Commerce on S. 1150 and S. 2510, 1922.
- U. S. 69 Cong. 1 sess., *Railroad Legislation*, Hearings on H.R. 6359 before Committee on Interstate and Foreign Commerce, 1926.
- U. S. 71 Cong. 2 sess., *To Suspend Railroad Consolidation*, Hearings on S. J. Res. 161 (a joint resolution to suspend the authority of the I.C.C. to approve consolidations or unification of railway properties) before Committee on Interstate Commerce, 1930.
- U. S. 68 Cong. 1 (2) sess., *Consolidation of Railway Properties*, Hearings on S. 2224 before Committee on Interstate Commerce, 1925.
- U. S. 69 Cong. 1 sess., *Railroad Consolidation*, Hearings on H.R. 11212 before Committee on Interstate and Foreign Commerce, 1926.
- U. S. 69 Cong. 2 sess., *Unification of Carriers Engaged in Interstate Commerce*, Hearings on S. 4892 before the Committee on Interstate Commerce, 1927.
- U. S. 70 Cong. 1 sess., *Consolidation of Railway Properties*, Hearings on S. 1175 before Committee on Interstate Commerce, 1928.
- U. S. 70 Cong. 1 sess., *Railroad Consolidation*, Hearings on H.R. 5641 before Committee on Interstate and Foreign Commerce, 1928.
- U. S. 71 Cong. 2 sess., *Long and Short Haul*, Hearings on S. 563 before Subcommittee of the Committee on Interstate Commerce, 1930.
- U. S. 71 Cong. 2 sess., *Railroad Legislation*, Hearings on H.R. 9084 before a Subcommittee of the Committee on Interstate and Foreign Commerce, 1930.
- U. S. 71 Cong. 3 sess., *Regulation of Stock Ownership in Railroads*, Hearings on H.R. 2789 before Committee on Interstate and Foreign Commerce, 1931.
- U. S. 71 Cong. 3 sess., *Preliminary Report of Study of Rail-*

- road Consolidations and Unifications*; submitted to Committee on Interstate Commerce, S. Res. 290, 1931.
- U. S. 72 Cong. 1 sess., *Control of Common Carriers by Railroads*, Hearings on H.R. 1387 before Committee on Interstate and Foreign Commerce, 1932.
- U. S. 72 Cong. 1 sess., *Railroad Legislation*, Hearings on H.R. 7116 and 7117 before Committee on Interstate and Foreign Commerce, 1932.
- U. S. 72 Cong. 1 sess., *Railroads—Recapture and Valuation*, Hearings on H.R. 1386 before Committee on Interstate and Foreign Commerce, 1932.
- U. S. 72 Cong. 1 sess., *Regulation of Railroad Holding Companies*, Hearings on H.R. 9059 before Committee on Interstate and Foreign Commerce, 1932.
- Vanderblue, H. B., and Burgess, K. F., *Railroads: Rates—Service—Management*, Macmillan, 1923.
- Wagner, W. H., *The Hoch-Smith Resolution; the Contentions as to its Interpretation and Application*, Traffic Pub. Co., New York, 1929.
- Ward, F. B., *The United States Railroad Labor Board and Railway Labor Disputes* (thesis), University of Pennsylvania, 1929.
- Woo, V. W., *Efficiency in Railroad Management; a Study of the Requirements of Section 15-a of the Transportation Act of 1920*, University of Pennsylvania Press, 1926.
- Wood, L. A., *Union-Management Co-operation on the Railroads*, Yale University Press, 1931.

## 2. Periodical Publications

- Bureau of Railway Economics, *Statistics of Railways of Class I, United States*, Statistical Summary No. 14 (1920-31), Washington.
- , *A Review of Railway Operations in 1931*, Special Series No. 58 (annual, 1932 in press).
- Emergency Boards Appointed by the President of the United States, under Section 10 of the Railway Act, *Annual Reports*, 1927-32.
- Journal of Land and Public Utility Economics* (monthly), Chicago.



- National Association of Railroad and Utilities Commissioners, *Proceedings* (annual).
- Railway Age* (weekly), New York.
- Traffic World* (monthly), Chicago.
- U. S. Director General of Railroads, *Annual Reports*, 1918-19.
- U. S. Board of Mediation, *Annual Reports*, 1927-32.
- U. S. Railroad Labor Board, *Annual Reports*, 1920-26.
- U. S. Interstate Commerce Commission, *Annual Report*.
- , *Operating Revenues and Operating Expenses by Class of Service, Class I Steam Railways in the United States* (annual).
- , *Comparative Statement of Operating Averages, Class I Steam Railways in the United States* (annual).
- , *Statistics of Railways in the United States* (annual).
- , *Wage Statistics* (annual).
- , *Fuel for Locomotives, Class I Steam Railways* (monthly).
- , *Freight and Passenger Operating Statistics of Class I Steam Railways* (monthly).
- , *Freight Commodity Statistics, Class I Steam Railways in the United States* (annual).
- , *Graphical Supplement to Monthly Reports*.
- , *Operating Revenues and Operating Expenses, Class I Steam Railways* (monthly).
- , *Operating Revenues and Operating Expenses of Large Steam Roads—Selected Items for Roads with Annual Operating Revenues above \$25,000,000* (monthly).
- , *Operating Statistics of Large Steam Roads—Selected Items for Roads with Annual Operating Revenues above \$25,000,000*
- , *Revenue Traffic Statistics of Class I Steam Railways* (monthly).
- , *Selected Income and Balance-Sheet Items of Class I Steam Railways* (monthly).
- , *Summary of Accidents Reported by Steam Railways* (monthly).
- , *Wage Statistics, Class I Steam Railways* (monthly).

3. *Important Decisions of the Interstate Commerce Commission*

A. General rate and revenue cases:

- Revenues in Western District*, 113 I.C.C. 3 (1926).  
*Western Trunk-line Class Rates*, 164 I.C.C. 1 (1930)  
*Eastern Class Rate Investigation*, 164 I.C.C. 314 (1930).  
*Southern Class Rate Investigation*, 100 I.C.C. 513 (1925).  
*Consolidated Southwestern Cases*, 123 I.C.C. 203 (1927).  
*Rate Structure Investigation*:
- Grain and Grain Products within Western District for Export*, 164 I.C.C. 619 (1930).
  - Livestock—Western District Rates*, 176 I.C.C. 1 (1931).
  - Cotton*, 165 I.C.C. 595 (1930).
  - Petroleum and Petroleum Products*, 171 I.C.C. 286 (1931).
  - Rates on Refined Petroleum Products from, to and between Points in the Southwest*, 171 I.C.C. 381 (1931).
  - Fifteen Per Cent Case*, 178 I.C.C. 539 (1931) and 179 I.C.C. 215, (1931).

B. Consolidation of Railroads:

- Compare 63 I.C.C. 455 (1921), 159 I.C.C. 522 (1929), 183 I.C.C. 663 (1932), and 185 I.C.C. 403 (1932).

C. Valuation:

- Excess Income of St. Louis and O'Fallon Railway Company*, 124 I.C.C. 3 (1927). (Decision in this case was overruled by the Supreme Court in *St. Louis and O'Fallon Railway Company and Manufacturers' Railway Company v. United States of America and Interstate Commerce Commission*, 279 U.S. 461.)  
*Excess Income of Richmond, Fredericksburg and Potomac Railroad Company*, 170 I.C.C. 451 (1931).

D. Highway Transport:

- Motor Bus and Motor Truck Operation*, 140 I.C.C. 685.  
*Co-ordination of Motor Transportation*, 182 I.C.C. 263 (1932).

## E. Labor Relations:

Report of an investigation completed in 1932, under the title of *Six Hour Day Investigation*, has been presented to Congress but not yet published.

## WATER TRANSPORT

## 1. Books Pamphlets, and Documents

- Bureau of Railway Economics, *Comparison of Transportation Costs by Rail and via Barge Canal*, Washington, 1925.
- , *An Economic Survey of Inland Waterway Transportation in the United States*, Washington, 1930.
- , *Transportation Costs on the New York State Barge Canal*, Washington, 1926.
- Engineering, Operating and Traffic Committee on New York Harbor, *Associated Report*, New York, 1926.
- Joint Board of Engineers appointed by the Governments of the United States and Canada. *Report on the Improvement of the St. Lawrence River between Lake Ontario and Montreal* (mimeographed), 1927.
- Kidd, Howard C., *Regulation of Intercoastal Commerce*, University of Pittsburgh Bulletin, Vol. 28, No. 21, June 15, 1932.
- Moulton, H. G., *Waterways versus Railways*, Houghton Mifflin, 1926.
- , Morgan, C. L., and Lee, A. L., *The St. Lawrence Navigation and Power Project*, Brookings Institution, 1929.
- St. Lawrence Commission [United States], *Report and Recommendations to President Calvin Coolidge by Secretary Herbert Hoover, Chairman*. December 27, 1926.
- Security Owners' Association, Inc., *A Study of Transportation by Waterways as Related to Competition with Rail Carriers in Continental United States*, New York, 1932.
- Switzer, J. E., "The Completed Ohio River Project," *Proc. Indiana Acad. of Sci.*, Vol. 41, 1931, p. 346.
- U. S. Army Corps of Engineers, *Transportation on the Ohio River System (Interim Report)*, 1927.
- , and Bureau of Operations U. S. Shipping Board, *Transportation in the Mississippi and Ohio Valleys*, 1929.

- U. S. Bureau of Foreign and Domestic Commerce, *Great-Lakes-to-Ocean Waterways*, 1927.
- , *Inland Water Transportation in the United States*, 1923.
- U. S. Bureau of the Census, *Transportation by Water*, 1906, 1908.
- , *Transportation by Water*, 1916, 1920.
- U. S. 62 Cong. 2 sess., *Final Report of the National Waterways Commission*, S. doc. 469, 1912.
- U. S. 71 Cong. 2 sess., *Report from the Chief of Engineers of the War Department on a Partial Survey of Mississippi River*, H.R. doc. 290, 1930.
- U. S. 72 Cong. 2 sess., *Great Lakes-St. Lawrence Deep Waterway Treaty*, Report submitted by Committee on Foreign Relations, Sen. Exec. Report No. 1, 1933.
- U. S. 72 Cong. 2 sess., *Regulation of Intercoastal Water Carriers*. Hearings on S. 4491 before House Committee on U. S. Merchant Marine, Radio and Fisheries, 1933.
- U. S. 72 Cong. 2 sess., *St. Lawrence Waterway*, Hearings on S. Res. 278 before a Subcommittee of the Committee on Foreign Relations, 1932.
- U. S. Inland Waterways Commission, *Preliminary Report*, S. doc. 325, 1908.
- U. S. 67 Cong. 2 sess., *Report of the International Joint Commission Concerning the Improvement of the St. Lawrence River between Montreal and Lake Ontario for Navigation and Power*. S. doc. 114, 1921.

## 2. Periodical Publications

- U. S. Army Chief of Engineers, *Annual Reports*.
- U. S. Inland Waterways Corporation, *Annual Reports*.

## GENERAL AND MISCELLANEOUS

- American Federation of Labor, *Proceedings of Annual Conventions*, Washington.
- American Labor Year Book*, Rand School Press, New York, 1932.

910 AMERICAN TRANSPORTATION PROBLEM

- Bonbright, J. C., and Means, G. C., *The Holding Company, its Public Significance and its Regulation*, McGraw-Hill, 1932.
- Chamber of Commerce of the United States, Special Committee on Competing Forms of Transportation, *Report*, Washington, 1933.
- Daggett, Stuart, *Principles of Inland Transportation*, Harpers, 1928.
- Haines, H. S., *Efficient Railway Operation*, Macmillan, 1919.
- Johnson, Emory R., Huebner, G. E., and Wilson, G. L., *Principles of Transportation*, Appleton, 1928.
- National Bureau of Economic Research, Inc., *Recent Economic Changes*, Vol. I, Chap. IV (Transportation), McGraw-Hill, 1929.
- Royal Commission to Inquire into Railways and Transportation in Canada, *Report*, F. A. Acland, Ottawa, 1932.
- Meyer, B. H., *History of Transportation in the United States before 1890*, Carnegie Institution of Washington, 1917.
- National Tax Association, *Proceedings of Annual Conventions*.
- U. S. 72 Cong. 2 sess., *Government Competition with Private Enterprise*, Report of the Special Committee Appointed to Investigate Government Competition with Private Enterprise (Shannon Committee), H. R. 1985, 1933.
- Wiley, Malcolm M., and Rice, Stuart A., *Communication Agencies and Social Life*, Recent Social Trends Monographs (President's Research Committee on Social Trends), McGraw-Hill, 1933.

## INDEX

- Abandonments, railway, 147-52
- Acquisition cases, use of valuation data, 414-15
- Agricultural corporations, taxes on, 261-64
- Agricultural products,  
   freight rates on, 119-27  
   truck transportation of, Chap. XXVIII
- Air transport, Chap. XXXI  
   co-ordination with other transport, 737-38  
   with city plans, 822  
   costs, 725-27  
   fares, 727-28  
   principal companies, 720-22  
   regulation, 753-57, 879-80  
   safety, 729-31  
   service, 728-33  
   subsidies, 739-53  
   traffic, 733-37
- Ann Arbor case, 123
- Atlanta, Birmingham and Atlantic Railway, reorganization plan, 341-42
- Baltimore, truck distribution from, 619
- Board of Mediation, 196
- Bonds, use in railway finance, 293-97, 299-313; yields, 38-39
- Boston, truck receipts at 601-602, 604, 628
- Brandeis, Mr. Justice, 392, 395-96, 402
- Brotherhoods, railway, *see* Trade unions
- Bus service, co-ordination with railway, 690-96
- Buscheck, A. J., 350, 352
- Butler, E. S., 155-56
- Butter, *see* Dairy products
- Calves, *see* Livestock
- Canals, *see* Waterways
- Capital  
   amount raised by railways, 41-47  
   cost to railways, 40-41
- Capitalization, of railways  
   amount, 326-31, 416-18  
   control of, 286-87  
   form, 276-79, 303  
   significance, 287-88  
   valuation as basis of, 416
- Cattle, *see* Livestock
- Chicago,  
   railway terminal situation, 791-93, 801  
   truck receipts at, 628-29, 635, 636, 640, 643-45
- Chicago, Milwaukee, St. Paul and Pacific Railway, reorganization plan, 337-39, 351
- Circuitous routing, 848-49
- City planning, Chap. XXXIV
- Collateral trust bonds, 275-76
- Collective bargaining, 181-82
- Committees, reorganization, 320-22, 350, 356, 360
- Commodities Clause,  
   of Hepburn Act, 710-12
- Commutation traffic,  
   amount, 89-90  
   receipts from, 54
- Compensation, of railway employees, 60-61, 209; *see also* Wages
- Competition,  
   effect on railway rates, 127-32  
   wastes of, 849-50
- Condemnation proceedings,  
   use of valuation data in, 415-16
- Consolidation, of railroads, Chap. XXXVI

912 AMERICAN TRANSPORTATION PROBLEM

- Containers, in terminal service, 674-78
- Convertible bonds, 276
- Cost, as factor in rate-making, 132-35, 145
- Cotton, truck transportation of, 645-68
- Cream, *see* Dairy products
- Dairy products, truck distribution of, 621-37
- Decapitalization, 288-97, 313-16
- Denver and Rio Grande Western, reorganization plan, 339-41, 351
- Depressed industries, railway rates for, 119-27
- Depression of 1930-33, effect of, on railroads, Chap. III  
on rates, 53-56  
on tax burdens, 232  
on truck competition, 576  
on various industries, 50-62
- Dividends, railway, 63, 316-20
- Dual basis, of wage payments, 187-90
- Eastman, J. B., 382-85, 395-96, 410
- Efficiency, railway, 99-109, 772-74, 778-79, 788-89
- Eggs, truck transportation of, 637-38, 642-45
- Electric power companies, taxes on, 254-56
- Electric railways, taxes on, 254-61
- Employment, in transportation, 23
- Equipment obligations, 277
- Erdman Act, 195
- Erie Canal, 3-5, 430, 439, 456, 459. *See also* New York State Barge Canal
- Expenditures, railroad, 29; unproductive, Chap. X
- Expenses, of reorganizations, 333-36
- Express service, compared with highway transport, 610-11  
use of trucks in, 681-82  
co-ordination with air transport, 738
- Farms, taxes on, 250-54
- Federal aid, 542
- Finance, railroad, Chaps. II, XII to XVI
- Fixed charges, railway, 82;  
in reorganizations, 331-33
- Forwarding companies, 681-82
- Freight rate structure, 140-44, 146
- Freight receipts, per ton mile, 55
- Fruits, truck transportation of, 595-621
- Full-crew laws, 226
- Funded debt, devaluation of, 291-97
- Gasoline, taxes, 544  
pipe lines, 702  
*see also* Highways, financing of
- Grade crossings, railroad and highway, 223-25, 227
- Highway transport character of, 521-24  
growth of, 517-19, 529, Chap. XXVIII  
*see also* Trucks
- Highways, financing of, Chaps. XXV to XXVII  
increase of mileage, 530-31
- Hoch-Smith resolution, 119-27, 145, 409
- Hogs, *see* Livestock
- Ice cream, *see* Dairy products
- Illinois and Michigan Canal, 430, 431
- Illinois River navigation project, 440

- Income, national, tax burden on, 248
- Income bonds, 276, 307
- Inland Waterways Corporation, 498-503
- Interstate Commerce Commission  
attitude toward abandonments, 172-78; toward Hoch-Smith resolution, 124-25; toward recapture clause, 384-85  
powers of, 841-42, 891-951
- Intra-coastal Waterway, 445-503
- Investment, in railways  
amount and purpose, 101-103  
as base for rate-making, 392-94  
as basis of capitalization, 326-28  
results of, 46-47, 100  
return on, 21, 30-34
- Labor, railway, status of, 181-97
- Labor costs, of railroad operation, 202-21
- Leased line securities, 276
- Livestock, truck transportation of, 578-95
- Long-and-Short-Haul Clause, 131, 135-40
- Los Angeles, truck receipts at, 604-605
- Mail, air, 739-45, 751-53
- Majority control, in reorganization cases, 349, 353-56, 360
- Manufacturing corporations, taxes on, 261-64
- Market values, as rate base, 387-88
- Milk, *see* Dairy products
- Mining corporations, taxes on, 261-64
- Mississippi River navigation project, 441, 491-98
- Missouri-Kansas-Texas Railway Company, reorganization plan, 351
- Missouri River, 486-91
- Motor vehicles  
regulation of, 875  
taxation of, Chap. XXVII  
*see also* Trucks
- New York  
truck distribution from, 620  
truck receipts at, 602, 626-27
- New York State Barge Canal, 469-76  
*see also* Erie Canal
- Newlands Act, 195
- Obsolescent lines, Chap. VIII
- O'Fallon case, 375-76, 395-98, 401-03
- Ohio River, 476-86
- Oil, as fuel for locomotives, 773-74  
transportation of, *see* Pipe lines
- Operating averages, 104-07
- Operating ratio, 26-28, 67-68
- Ownership, of railway securities, 279-84
- Packing-house products, truck transportation of, 594-95
- Panama Canal, influence on railway rates, 129, 139
- Par values, 313-16
- Passenger terminals  
*see* Terminals
- Passenger traffic, Chap. V, 774-77, causes of decline, 88-93  
expenses caused by, 92-98  
receipts from, 54  
unprofitableness of, 86-88
- Per diem charges, freight car, 107-109
- Philadelphia,  
truck distribution from, 619-20  
truck receipts at, 603-04, 627-28
- Pick-up and delivery service, 678-81
- Pipe lines, 9, Chap. XXX  
competition with railways, 713-16



## 914 AMERICAN TRANSPORTATION PROBLEM

- development of, 702-08
- regulation, 708-13
- taxes on, 257-61
- Pittsburgh, truck distribution from, 618-19
- Poultry, truck transportation of, 638-42
- Post Office Department, control over air transport, 753-57
- Prices, of railway supplies, 58-60
- Principles, of transportation, 19-23, Chap. XXXVIII
- Preferred stock, railway, 277-78
- Produce terminals
  - see *Terminals*
- Prudent investment, 392-94
- Public ownership, of transportation facilities, 843
- Public utilities, taxes on, 261-64
  
- Railroad Credit Corporation, 56, 66-68, 295
- Railroad crossings, highway, *see* Grade crossings
- Railroad Labor Act, 196
- Railroad Labor Board, 185-86, 196, 208, 212
- Railroad Labor Executives' Association, 186
- Rates, railway, 22, Chap. VII
  - effect of depression on, 53-56
  - policies of Interstate Commerce Commission, 115-19
  - regulation of, Part IV
  - relation to earnings, 112-15; to prices, 465-67
  - rigidity of, 293
- Recapture clause, of Transportation Act, Chap. XVIII
- Receiverships, 357-58
- Reconstruction Finance Corporation, 68-70, 295, 416
- Regional groups of railways, finances compared, 34-36
- Registration fees, motor vehicle, 566
- Regulation, of railways, 9-12, 851, 862-72; development of, Chap. XXXVII
  - of highways, 12
  - of pipe lines, 12
  - of transport agencies in general, 13, 840-41, 888-95
- Relative priority, 349-52, 360
- Reorganization, of railway corporations, Chaps. XV and XVI; procedure in, 322-26
- Reproduction cost, Theory of rate-making, 388-91
- Revenues, railway, effect of the depression on, 57
- Richmond, Frederick, and Potomac Railroad Company, Excess income of, 403-409
- Rochester, truck receipts of milk, 625-27
  
- St. Lawrence, navigation project, 505-13
- St. Louis-San Francisco Railway, reorganization plan, 342-47
- Safety, of air transport, 730
- Security issues, railroad, 304-06
- Sheep, *see* Livestock
- Smyth vs. Ames, 371, 374-75, 390-91, 401
- Spectulators, treatment of, in reorganization cases, 349, 356-57
- State and local taxes, railway, 236-37
- Stephenson case, 876-78
- Stock dividends, 315
- Stock, railway, 277-78
- Stockholders' equity, in railroads, 31
- Streets,
  - in city plans, 826-31
- Subsidies,
  - to railroads, 6, 446-68
  - to air transport, 739-53
- Surface, highways classified by, 530-33
- Surpluses, of cars, 104

- Taxation, of motor vehicles, Chap. XXVII  
 of railways, Chap. XI  
 use of valuation data, for, 413-14  
 of Inland Waterways Corporation, 501
- Telegraph companies, taxes on, 254-61
- Telephone companies, taxes on, 254-61
- Terminals,  
 cost of operation, 671-74, 783-85  
 freight, 781-99, 815, 823-25  
 operation of, Chap. XXIX, 784-99  
 passenger, 805-807, 814, 823  
 produce, 617-19, 799-805  
 unification of, Chaps. XXXIII, XXXV
- Texas, statute regulating use of highways, 656-57, 876-78
- Tolls, 4, 433, 566
- Track elevation, 227, 228
- Trade unions, railway, 181-86
- Traffic, railway,  
 composition of, 75  
 density, relation to earnings, Chap. IV, 153-61  
 effect of depression on, 49-53
- Train control, automatic, 228
- Train-limit laws, 226, 228
- Trucks, competition of, with railways, Chap. XXVIII  
 number of, 517-18, 529  
 ownership, 520-21, 577-78, 609-10, 630-31  
 types of, 518-19, 524-26  
 use by railways, 674-89
- see also* Highway transport, Motor vehicles
- Unprofitable railway mileage, 152-72
- Valuation, of railways, Part IV  
 as basis of capitalization, 328-30  
 as base for rate-making, Chaps. XIX, XX  
 data, 379  
 procedure, 371-76
- Valuation Act, of 1913, antecedents of, 367-71
- Vegetables, truck transportation of, 595-621
- Washington, D.C., terminals, 817-18
- Wages, 21, 768  
 railway, Chap. IX  
 highway, 522-23  
 waterway and railway compared, 461
- Watres Act, 718, 741
- Water carriers,  
 regulation of, 872-74  
 taxes on, 257-61  
 wages paid by, 461
- Waterways, 3, Part V  
 capacity of, 457-59  
 co-ordination with railways, 821-22  
 federal expenditures on, 438  
 investment costs, 456-57, 463-66  
 operating costs, 461-63  
 projected development, 443-50  
 traffic, 471
- Westmeyer, R. E., 151-52
- Working rules, on railways, 191-94

PUBLICATIONS OF THE BROOKINGS  
INSTITUTION\*

INSTITUTE OF ECONOMICS SERIES

- (1.) GERMANY'S CAPACITY TO PAY.  
By Harold G. Moulton and Constantine E. McGuire.  
384 pp. 1923. \$2.50.
- (2.) RUSSIAN DEBTS AND RUSSIAN RECONSTRUCTION.  
By Leo Pasvolosky and Harold G. Moulton. 247 pp.  
1924. \$2.50.
- (3.) MAKING THE TARIFF IN THE UNITED STATES.  
By Thomas Walker Page. 281 pp. 1924. \$3.
- (4.) AMERICAN AGRICULTURE AND THE EUROPEAN MAR-  
KET.  
By Edwin G. Nourse. 333 pp. 1924. \$2.50.
- (5.) SUGAR IN RELATION TO THE TARIFF.  
By Philip G. Wright. 312 pp. 1924. \$2.50.
- (6.) MINERS' WAGES AND THE COST OF COAL.  
By Isador Lubin. 316 pp. 1924. Out of print.
- (7.) THE REPARATION PLAN.  
By Harold G. Moulton. 325 pp. 1924. \$2.50.
- (8.) THE FRENCH DEBT PROBLEM.  
By Harold G. Moulton and Cleona Lewis. 459 pp.  
1925. \$2.
- (9.) THE RUHR-LORRAINE INDUSTRIAL PROBLEM.  
By Guy Greer. 328 pp. 1925. \$2.50.
- (10.) THE CASE OF BITUMINOUS COAL.  
By Walton H. Hamilton and Helen R. Wright. 310  
pp. 1925. \$2.50.
- (11.) INTEREST RATES AND STOCK SPECULATION.  
By Richard N. Owens and Charles O. Hardy. 221  
pp. rev. ed. 1930. \$2.50.
- (12.) THE FEDERAL INTERMEDIATE CREDIT SYSTEM.  
By Claude L. Benner. 375 pp. 1926. Out of print.
- (13.) THE TARIFF ON WOOL.  
By Mark A. Smith. 350 pp. 1926. \$2.50.

\* The parentheses indicate that the volume itself does not carry the number since it was given subsequent to publication.

## LIST OF PUBLICATIONS

- (14.) **THE CATTLE INDUSTRY AND THE TARIFF.**  
By Lynn Ramsay Edminster. 331 pp. 1926. \$2.50.
- (15.) **THE COAL MINERS' STRUGGLE FOR INDUSTRIAL STATUS.**  
By Arthur E. Suffern. 462 pp. 1926. \$2.50.
- (16.) **TAX-EXEMPT SECURITIES AND THE SURTAX.**  
By Charles O. Hardy. 216 pp. 1926. \$2.
- (17.) **WORLD WAR DEBT SETTLEMENTS.**  
By Harold G. Moulton and Leo Pasvolsky. 448 pp. 1926. \$2.
- (18.) **FINANCING THE LIVESTOCK INDUSTRY.**  
By Forrest M. Larmer. 327 pp. 1926. \$2.50.
- (19.) **ITALY'S INTERNATIONAL ECONOMIC POSITION.**  
By Constantine E. McGuire. 588 pp. 1926. \$3.
- (20.) **WORKERS' HEALTH AND SAFETY: A STATISTICAL PROGRAM.**  
By Robert Morse Woodbury. 207 pp. 1927. \$2.50.
- (21.) **THE INTERNATIONAL ACCOUNTS.**  
By Cleona Lewis. 170 pp. 1927. \$2.
- (22.) **INDUSTRIAL PROSPERITY AND THE FARMER.**  
By Russell C. Engberg. 286 pp. 1927. \$2.50.
- (23.) **THE LEGAL STATUS OF AGRICULTURAL CO-OPERATION.**  
By Edwin G. Nourse. 555 pp. 1927. \$3.
- (24.) **AMERICAN LOANS TO GERMANY.**  
By Robert R. Kuczynski. 378 pp. 1927. \$3.
- (25.) **THE BRITISH COAL DILEMMA.**  
By Isador Lubin and Helen Everett. 370 pp. 1927. \$2.50.
- (26.) **THE TARIFF ON ANIMAL AND VEGETABLE OILS.**  
By Philip G. Wright. 347 pp. 1928. \$2.50.
- (27.) **A WAY OF ORDER FOR BITUMINOUS COAL.**  
By Walton H. Hamilton and Helen R. Wright. 365 pp. 1928. \$2.50.
- (28.) **ECONOMIC NATIONALISM OF THE DANUBIAN STATES.**  
By Leo Pasvolsky. 609 pp. 1928. \$3.
- (29.) **THE BALANCE OF BIRTHS AND DEATHS. Vol. I, Western and Northern Europe.**  
By Robert R. Kuczynski. 140 pp. 1928. Out of print.

## LIST OF PUBLICATIONS

- (30.) **LABOR AND INTERNATIONALISM.**  
By Lewis L. Lorwin. 682 pp. 1929. \$3.
- (31.) **THE MEXICAN AGRARIAN REVOLUTION.**  
By Frank Tannenbaum. 543 pp. 1929. \$3.
- (32.) **THE TARIFF ON IRON AND STEEL.**  
By Abraham Berglund and Philip G. Wright. 240 pp. 1929. \$3.
- (33.) **THE ST. LAWRENCE NAVIGATION AND POWER PROJECT.**  
By Harold G. Moulton, Charles S. Morgan, and Adah L. Lee. 675 pp. 1929. \$4.
- (34.) **RAILROAD PURCHASING AND THE BUSINESS CYCLE.**  
By John E. Partington. 309 pp. 1929. \$3.
- (35.) **HAND-TO-MOUTH BUYING: A STUDY IN THE ORGANIZATION, PLANNING, AND STABILIZATION OF TRADE.**  
By Leverett S. Lyon. 487 pp. 1929. \$4.
- (36.) **UNEMPLOYMENT INSURANCE IN GERMANY.**  
By Mollie Ray Carroll. 137 pp. 1929. \$2.50.
- (37.) **INTERNATIONAL CONTROL OF RAW MATERIALS.**  
By Benjamin Bruce Wallace and Lynn Ramsay Edminster. 479 pp. 1930. \$3.50.
- (38.) **BIRTH REGISTRATION AND BIRTH STATISTICS IN CANADA.**  
By Robert Kuczynski. 219 pp. 1930. \$3.
- (39.) **BULGARIA'S ECONOMIC POSITION.**  
By Leo Pasvolsky. 409 pp. 1930. \$3.
40. **THE CO-OPERATIVE MARKETING OF LIVESTOCK.**  
By Edwin G. Nourse and Joseph G. Knapp. 486 pp. 1931. \$3.50.
41. **BANKERS' PROFITS FROM GERMAN LOANS.**  
By Robert R. Kuczynski. 228 pp. 1932. \$1.75.
42. **THE CUBAN SITUATION AND OUR TREATY RELATIONS.**  
By Philip G. Wright. 208 pp. 1931. \$2.50.
43. **THE BALANCE OF BIRTHS AND DEATHS. Vol. II, Eastern and Southern Europe.**  
By Robert R. Kuczynski. 170 pp. 1931. \$2.

## LIST OF PUBLICATIONS

44. JAPAN: AN ECONOMIC AND FINANCIAL APPRAISAL.  
By Harold G. Moulton with the collaboration of  
Junichi Ko. 645 pp. 1931. \$4.
45. CREDIT POLICIES OF THE FEDERAL RESERVE SYSTEM.  
By Charles O. Hardy. 374 pp. 1932. \$2.50.
46. WAR DEBTS AND WORLD PROSPERITY.  
By Harold G. Moulton and Leo Pasvolsky. 498 pp.  
1932. \$3.
47. ADVERTISING ALLOWANCES: A PHASE OF THE PRICE-  
MAKING PROCESS.  
By Leverett S. Lyon. 125 pp. 1932. \$1.
48. TEN YEARS OF FEDERAL INTERMEDIATE CREDITS.  
By Frieda Baird and Claude L. Benner. (In press.)
49. SILVER: AN ANALYSIS OF FACTORS AFFECTING ITS  
PRICE.  
By Y. S. Leong. (In press.)
50. THE AMERICAN FEDERATION OF LABOR: HISTORY AND  
OUTLOOK.  
By Lewis L. Lorwin. (In press.)

## INSTITUTE FOR GOVERNMENT RESEARCH SERIES

### *Studies in Administration*

- (1.) THE SYSTEM OF FINANCIAL ADMINISTRATION OF  
GREAT BRITAIN.  
By W. F. Willoughby, W. W. Willoughby, and S.  
M. Lindsay. 362 pp. 1917. \$3.
- (2.) THE BUDGET: A TRANSLATION.  
By René Stourm. 619 pp. 1917. \$4.
- (3.) THE PROBLEM OF A NATIONAL BUDGET.  
By W. F. Willoughby. 220 pp. 1918. Out of print.
- (4.) THE MOVEMENT FOR BUDGETARY REFORM IN THE  
STATES.  
By W. F. Willoughby. 254 pp. 1918. \$3.
- (5.) THE CANADIAN BUDGETARY SYSTEM.  
By H. C. Villard and W. W. Willoughby. 379 pp.  
1918. \$3.

## LIST OF PUBLICATIONS

- (6.) ORGANIZED EFFORTS FOR THE IMPROVEMENT OF METHODS OF ADMINISTRATION IN THE UNITED STATES.  
By Gustavus A. Weber. 391 pp. 1919. \$3.
- (7.) TEACHERS' PENSION SYSTEMS IN THE UNITED STATES.  
By Paul Studensky. 460 pp. 1920. \$3.
- (8.) THE FEDERAL SERVICE: A STUDY OF THE SYSTEM OF PERSONNEL ADMINISTRATION OF THE UNITED STATES GOVERNMENT.  
By Lewis Mayers. 607 pp. 1922. \$5.
- (9.) THE REORGANIZATION OF THE ADMINISTRATIVE BRANCH OF THE NATIONAL GOVERNMENT.  
By W. F. Willoughby. 298 pp. 1923. Out of print.
- (10.) THE DEVELOPMENT OF NATIONAL ADMINISTRATIVE ORGANIZATION IN THE UNITED STATES.  
By Lloyd M. Short. 514 pp. 1923. \$5.
- (11.) THE STATISTICAL WORK OF THE NATIONAL GOVERNMENT.  
By Laurence F. Schmeckebier. 574 pp. 1925. \$5.
- (12.) MANUAL OF ACCOUNTING AND REPORTING FOR THE OPERATING SERVICES OF THE NATIONAL GOVERNMENT.  
By Henry P. Seidemann. 399 pp. 1926. \$5.
- (13.) THE NATIONAL GOVERNMENT AND PUBLIC HEALTH.  
By James A. Tobey. 423 pp. 1926. \$3.
- (14.) THE NATIONAL BUDGET SYSTEM, WITH SUGGESTIONS FOR ITS IMPROVEMENT.  
By W. F. Willoughby. 343 pp. 1927. \$3.
- (15.) THE DEPARTMENT OF JUSTICE OF THE UNITED STATES.  
By Albert Langeluttig. 318 pp. 1927. \$3.
- (16.) THE LEGAL STATUS AND FUNCTIONS OF THE GENERAL ACCOUNTING OFFICE.  
By W. F. Willoughby. 193 pp. 1927. \$3.
- (17.) THE PROBLEM OF INDIAN ADMINISTRATION.  
By Lewis Meriam and Associates. 872 pp. 1928. \$5.
- (18.) THE DISTRICT OF COLUMBIA: ITS GOVERNMENT AND ADMINISTRATION.  
By Laurence F. Schmeckebier. 943 pp. 1928. \$5.

## LIST OF PUBLICATIONS

- (19.) THE DEVELOPMENT OF GOVERNMENTAL FOREST CONTROL IN THE UNITED STATES.  
By Jenks Cameron. 471 pp. 1928. \$3.
- (20.) MANUAL OF ACCOUNTING, REPORTING, AND BUSINESS PROCEDURE FOR THE TERRITORIAL GOVERNMENT OF HAWAII.  
By Henry P. Seidemann. 570 pp. 1928. \$5.
- (21.) THE GOVERNMENT AND ADMINISTRATION OF GERMANY.  
By Frederick F. Blachly and Miriam E. Oatman. 770 pp. 1928. \$5.
- (22.) GROUP REPRESENTATION BEFORE CONGRESS.  
By E. Pendleton Herring. 309 pp. 1929. \$3.
- (23.) REGISTRATION OF VOTERS IN THE UNITED STATES.  
By Joseph P. Harris. 390 pp. 1929. \$3.
- (24.) THE GOVERNMENT AND ADMINISTRATION OF THE DISTRICT OF COLUMBIA: SUGGESTIONS FOR CHANGE.  
By Laurence F. Schmeckebier and W. F. Willoughby. 187 pp. 1929. \$2.
25. FINANCIAL CONDITION AND OPERATION OF THE NATIONAL GOVERNMENT, 1921-1930.  
By W. F. Willoughby. 234 pp. 1931. \$3.
26. STATE CENTRALIZATION IN NORTH CAROLINA.  
By Paul V. Better (editor). 261 pp. 1932. \$2.

### *Principles of Administration*

- (1.) PRINCIPLES GOVERNING THE RETIREMENT OF PUBLIC EMPLOYEES.  
By Lewis Meriam. 477 pp. 1918. Out of print.
- (2.) PRINCIPLES OF GOVERNMENT PURCHASING.  
By Arthur G. Thomas. 275 pp. 1919. \$3.
- (3.) PRINCIPLES OF GOVERNMENT ACCOUNTING AND REPORTING.  
By Francis Oakey. 561 pp. 1921. Out of print.
- (4.) PRINCIPLES OF PUBLIC PERSONNEL ADMINISTRATION.  
By Arthur W. Procter. 244 pp. 1921. \$3.
- (5.) PRINCIPLES OF PUBLIC ADMINISTRATION.  
By W. F. Willoughby. 720 pp. 1927. \$5.



## LIST OF PUBLICATIONS

### (6.) PRINCIPLES OF JUDICIAL ADMINISTRATION.

By W. F. Willoughby. 662 pp. 1929. \$5.

#### *Service Monographs of the United States Government*

1. Geological Survey. 163 pp. 1918. Out of print.
2. Reclamation Service. 177 pp. 1919. Out of print.
3. Bureau of Mines. 162 pp. 1922. \$1.
4. Alaskan Engineering Commission. 124 pp. 1922. \$1.
5. Tariff Commission. 71 pp. 1922. \$1.
6. Federal Board for Vocational Education. 74 pp. 1922. \$1.
7. Federal Trade Commission. 80 pp. 1922. \$1.
8. Steamboat-Inspection Service. 130 pp. 1922. \$1.
9. Weather Bureau. 87 pp. 1922. \$1.
10. Public Health Service. 298 pp. 1923. \$2.
11. National Park Service. 172 pp. 1922. \$1.
12. Employees' Compensation Commission. 86 pp. 1922. \$1.
13. General Land Office. 224 pp. 1923. \$1.50.
14. Bureau of Education. 157 pp. 1923. \$1.
15. Bureau of Navigation. 124 pp. 1923. \$1.
16. Coast and Geodetic Survey. 107 pp. 1923. \$1.
17. Federal Power Commission. 126 pp. 1923. \$1.
18. Interstate Commerce Commission. 169 pp. 1923. Out of print.
19. Railroad Labor Board. 83 pp. 1923. \$1.
20. Division of Conciliation. 37 pp. 1923. \$1.
21. Children's Bureau. 83 pp. 1925. \$1.
22. Women's Bureau. 31 pp. 1923. \$1.
23. Office of the Supervising Architect. 138 pp. 1923. \$1.
24. Bureau of Pensions. 111 pp. 1923. \$1.
25. Bureau of Internal Revenue. 270 pp. 1923. \$1.50.
26. Bureau of Public Roads. 123 pp. 1923. \$1.
27. Office of the Chief of Engineers. 166 pp. 1923. \$1.
28. United States Employment Service. 130 pp. 1923. \$1.
29. Bureau of Foreign and Domestic Commerce. 180 pp. 1924. \$1.
30. Bureau of Immigration. 247 pp. 1924. \$1.50.
31. Patent Office. 127 pp. 1924. Out of print.

## LIST OF PUBLICATIONS

32. Office of Experiment Stations. 178 pp. 1924. \$1.
33. Customs Service. 191 pp. 1924. Out of print.
34. Federal Farm Loan Bureau. 160 pp. 1924. \$1.
35. Bureau of Standards. 299 pp. 1925. \$2.
36. Government Printing Office. 143 pp. 1925. \$1.
37. Bureau of the Mint. 90 pp. 1926. \$1.
38. Office of the Comptroller of the Currency. 84 pp. 1926. \$1.
39. Naval Observatory. 101 pp. 1926. \$1.
40. Lighthouse Service. 158 pp. 1926. \$1.
41. Bureau of Animal Industry. 190 pp. 1927. \$1.50.
42. Hydrographic Office. 112 pp. 1926. \$1.
43. Bureau of Naturalization. 108 pp. 1926. \$1.
44. Panama Canal. 413 pp. 1927. \$2.50.
45. Medical Department of the Army. 161 pp. 1927. \$1.50.
46. General Accounting Office. 215 pp. 1927. \$1.50.
47. Bureau of Plant Industry. 121 pp. 1927. \$1.
48. Office of Indian Affairs. 591 pp. 1927. \$3.
49. United States Civil Service Commission. 153 pp. 1928.  
\$1.50.
50. Food, Drug and Insecticide Administration. 134 pp. 1928.  
\$1.50.
51. Coast Guard. 265 pp. 1929. \$1.50.
52. Bureau of Chemistry and Soils. 218 pp. 1928. \$1.50.
53. Bureau of the Census. 224 pp. 1929. \$1.50.
54. Bureau of Biological Survey. 339 pp. 1929. \$2.
55. Bureau of Dairy Industry. 74 pp. 1929. \$1.50.
56. Bureau of Engraving and Printing. 111 pp. 1929. \$1.50.
57. Bureau of Prohibition. 333 pp. 1929. \$2.
58. Forest Service. 268 pp. 1930. \$2.
59. Plant Quarantine and Control Administration. 198 pp.  
1930. \$1.50.
60. Bureau of Entomology. 177 pp. 1930. \$1.50.
61. Aeronautics Branch: Department of Commerce. 147 pp.  
1930. \$1.50.
62. Bureau of Home Economics. 95 pp. 1930. \$1.50.
63. United States Shipping Board. 338 pp. 1931. \$2.50.
64. The Personnel Classification Board. 160 pp. 1931. \$1.50.
65. The Federal Radio Commission. 159 pp. 1932. \$1.50.

## LIST OF PUBLICATIONS

### MISCELLANEOUS SERIES

#### PORTO RICO AND ITS PROBLEMS.

By Victor S. Clark and Associates. 707 pp. 1930. \$5.

#### STEPHEN J. FIELD: CRAFTSMAN OF THE LAW.

By Carl Brent Swisher. 473 pp. 1930. \$4.

#### THE SPIRIT OF '76 AND OTHER ESSAYS.

By Carl Becker, J. M. Clark, and William E. Dodd. 135 pp. 1927. \$1.50.

#### ESSAYS ON RESEARCH IN THE SOCIAL SCIENCES.

By W. F. G. Swann and others. 194 pp. 1931. \$2.

#### THE SOCIETY OF NATIONS: ITS ORGANIZATION AND CONSTITUTIONAL DEVELOPMENT.

By Felix Morley. 678 pp. 1932. \$3.50.

#### THE AMERICAN TRANSPORTATION PROBLEM.

By Harold G. Moulton and Associates. 895 pp. \$3.

### PAMPHLETS

#### No. 1. RECENT GROWTH OF THE ELECTRIC LIGHT AND POWER INDUSTRY.

By Charles O. Hardy. 53 pp. 1929. 50 cents.

#### No. 2. FIRST MORTGAGES IN URBAN REAL ESTATE FINANCE.

By John H. Gray and George W. Terborgh. 69 pp. 1929. 50 cents.

#### No. 3. THE ABSORPTION OF THE UNEMPLOYED BY AMERICAN INDUSTRY.

By Isador Lubin. 36 pp. 1929. 50 cents.

#### No. 4. SOME TRENDS IN THE MARKETING OF CANNED FOODS.

By Leverett S. Lyon. 57 pp. 1929. 50 cents.

#### No. 5. THE FECUNDITY OF NATIVE AND FOREIGN-BORN WOMEN IN NEW ENGLAND.

By Joseph J. Spengler. 63 pp. 1930. 50 cents.

#### No. 6. SOURCES OF COAL AND TYPES OF STOKERS AND BURNERS USED BY ELECTRIC PUBLIC UTILITY POWER PLANTS.

By William H. Young. 83 pp. 1930. 50 cents.

#### No. 7. FEDERAL SERVICES TO MUNICIPAL GOVERNMENTS.

By Paul V. Betters. 100 pp. 1931. 50 cents.

### *LIST OF PUBLICATIONS*

**No. 8. REORGANIZATION OF THE FINANCIAL ADMINISTRATION OF THE DOMINICAN REPUBLIC.**

By Taylor G. Addison. 105 pp. 1931. 50 cents.

**No. 9. ADVISORY ECONOMIC COUNCILS.**

By Lewis L. Lorwin, 84 pp. 1931. 50 cents.

**No. 10. UNEMPLOYMENT INSURANCE IN AUSTRIA.**

By Mollie Ray Cartoll. 52 pp. 1932. 50 cents.