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BEFORE THE
SURFACE TRANSPORTATION BOARD

FINANCE DOCKET NO. 33388

CSX CORPORATION AND CSX TRANSPORTATION, INC. AND
NORFOLK SOUTHERN CORPORATION AND
NORFOLK SOUTHERN RAILWAY COMPANY
--CONTROL AND OPERATING LEASES/AGREEMENTS--
CONRAIL INC. AND CONSOLIDATED RAIL CORPORATION

JOINT VERIFIED STATEMENT OF
WILLIAM H. SPARROW AND WILLIAM J. ROMIG

BEFORE THE
SURFACE TRANSPORTATION BOARD

FINANCE DOCKET NO. 33388

CSX CORPORATION AND CSX TRANSPORTATION, INC. AND
NORFOLK SOUTHERN CORPORATION AND
NORFOLK SOUTHERN RAILWAY COMPANY
--CONTROL AND OPERATING LEASES/AGREEMENTS--
CONRAIL INC. AND CONSOLIDATED RAIL CORPORATION

JOINT VERIFIED STATEMENT OF WILLIAM H. SPARROW
AND WILLIAM J. ROMIG

My name is William H. Sparrow. I am Vice President-Financial Planning, CSX Corporation. I have a Bachelor of Arts degree from The John Hopkins University. I held various Financial Department positions with Chessie System from 1967 to 1985. From 1985 to 1994, I was Vice President-Treasurer, CSX Corporation, at which time I became a Vice President-Capital Budgeting and Planning, which title was changed to Financial Planning in February, 1996.

My name is William J. Romig. I am Vice President and Treasurer of Norfolk Southern Corporation (NS), headquartered in Norfolk, Virginia. I graduated from Kansas State University with a B.S. in physics in 1966. I obtained an M.B.A. from the University of Maryland in 1971 and a D.B.A.-Operations Research from the University of Maryland in 1975. I was first employed by Norfolk and Western Railway Company in 1977 as Director-Operating Systems. I became Assistant Vice President-Management Information in 1980. When NS was formed in 1982, I became Assistant Vice President-Costs

and Insurance. I became Assistant Vice President-Finance in 1983 and was appointed Vice President and Treasurer in 1992.

We are each familiar with the terms of the agreements between NS and CSX pertaining to their proposed acquisition of control of Conrail Inc. and the use and operation of certain assets of its subsidiary, Consolidated Rail Corporation (individually, "CRC"; collectively with its parent Conrail Inc., "Conrail").

The purpose of this Joint Verified Statement is to set forth and explain the general corporate structure of the "continuing Conrail" and related matters, including the method chosen by CSX and NS to provide for the in-place financial liabilities of Conrail Inc. and CRC.

CSX and NS currently are each 50% voting members of a limited liability company, organized under Delaware law, named CRR Holdings LLC. In CRR Holdings LLC, NS has a 58% equity interest and CSX a 42% equity interest. CRR Holdings LLC in turn is the owner of the entirety of the Common Stock of Green Acquisition Corp., which in turn beneficially owns (subject to a voting trust which will terminate upon the effectiveness of approval of the Transaction by the STB) all of the Common Stock of Conrail Inc. which has ceased to be a public company. Conrail Inc. in turn owns all of the stock of CRC. As is described elsewhere in the Application, CRC, upon the "Closing Date" referred to in the Transaction Agreement between the parties, will convey and assign to two subsidiary LLCs, to be called New York Central Lines LLC and Pennsylvania Lines LLC ("NYC" and "PRR") (collectively, the

"Subsidiaries"), those of the assets of CRC which will be operated, respectively, by CSXT and NSRC ("Allocated Assets"). NYC will enter into an "Allocated Assets Operating Agreement" with CSXT and PRR will enter into an "Allocated Assets Operating Agreement" with NSRC. Those Operating Agreements will cover the assets of the present CRC which will be operated by the two carriers, CSXT and NSRC.

CSXT and NSRC will, from the Closing Date forward, be responsible for all of the operating expenses and new liabilities attributable to the assets which they are operating. However, it is expected that most of the pre-Closing liabilities of CRC, its parent, CRR and their subsidiaries will remain in place.

CRC will pay its pre-Closing Date liabilities, including its debt obligations, out of payments received, either directly or through NYC and PRR, from CSXT and NSRC in connection with the Allocated Assets and the Shared Assets Areas, which payments are described below. Applicants intend and expect that such payments will be more than sufficient to permit CRC and its Subsidiaries to (1) cover their operating, maintenance and other expenses, (2) discharge and pay all of their obligations as they mature, (3) provide dividends to Conrail Inc. sufficient to permit it to discharge its debts and obligations as they mature, and (4) receive a fair return for the operation, use and enjoyment by CSXT and NSRC of the Allocated Assets and Shared Assets Areas. However, if for any reason (and none is presently foreseeable) these sources of funds to CRC, its Subsidiaries and Conrail Inc. prove insufficient to permit them to pay and discharge their obligations, NS and CSX have agreed in the

Transaction Agreement (Section 4.3) that CRR Holdings LLC shall provide to CRC such funds as are necessary to permit CRC, its Subsidiaries and Conrail Inc. to do so. Such additional capital contributions will be made by NS and CSX in the proportion 58% and 42% respectively. NS and CSX have paid in excess of \$10 billion for Conrail, and there is little likelihood that they would permit this valuable asset to fall into bankruptcy as long as NS and CSX themselves have the resources to prevent it.

Under the various agreements, CSXT and NSRC will make payments to NYC and PRR with respect to the Allocated Assets and will make payments to CRC with respect to the Shared Assets Areas. With regard to the Allocated Assets, the Allocated Assets Operating Agreements provide that CSXT and NSRC will be responsible for all the operating expenses, maintenance costs, taxes other than income taxes, and new liabilities attributable to the assets each will be operating. In addition, the Allocated Assets Operating Agreements provide that CSXT and NSRC will each pay to NYC and PRR respectively an Operating Fee for the privilege of operating, and retaining all revenues and profits from, the Allocated Assets. The Operating Fee in each case will be equal to a fair market rental for such assets, which rental will be determined by an independent appraiser selected by CSXT and NSRC. CSXT and NSRC will also lease equipment from NYC and PRR and make fair market lease payments for such leases. The Transaction Agreement further provides that the total Operating Fees and equipment lease payments to PRR and NYC shall be allocated initially as of the Closing Date between NSRC and CSXT in the ratio 58:42.

The Shared Assets Areas Operating Agreements also require CSXT and NSRC to make payments to CRC to cover CRC's operating and maintenance expenses and taxes other than income taxes; CSXT's and NSRC's respective shares of such payments will be determined on a usage basis. In addition, the Shared Assets Areas Operating Agreements require CSXT and NSRC to make equal payments to cover CRC's capital expenditures and to pay an interest rental (the "Interest Rental") based on a fair return on the fair market value of the Shared Assets Areas, which value will be determined by an independent appraiser selected by CSXT and NSRC. The Interest Rental will be paid by NSRC and CSXT in the ratio 58:42.

The Transaction Agreement contains an estimate by CSX and NS that the total of the fair market rentals for the NYC Allocated Assets and the PRR Allocated Assets, the Interest Rental for the Shared Assets Areas, and the basic rent under the Equipment Leases of equipment from CRC to CSXT and NSRC, will be \$750 million per annum. While that estimate is not binding, the parties believe that it constitutes a reasonable estimate. The actual amounts will be determined following the valuation process through the appraisal referred to above which will be conducted prior to the Closing Date. Revaluations will take place at six-year intervals following the Closing Date. The periodic revaluations following the Closing Date may result in revision of the ratio of 58:42 that is applicable commencing on the Closing Date.

Although the determinations of the fair market rentals for the NYC Allocated Assets and the PRR Allocated Assets and the Interest Rental for the Shared Assets Areas have not yet been made, NS and CSX expect that those

amounts and the usage fees under the Shared Assets Areas Operating Agreements will be more than sufficient to permit CRC, its Subsidiaries and Conrail Inc. to pay all of their operating and maintenance expenses and taxes, to pay all of their obligations as they mature and to provide NYC, PRR and CRC a fair return for the Allocated Assets and the Shared Assets Areas.

The Allocated Assets Operating Agreements and the Shared Assets Areas Operating Agreements are long-term, but are of limited duration. Each of the Allocated Assets Operating Agreements has a primary duration of 25 years, with two renewal periods of 10 years each. Each of the Shared Assets Areas Operating Agreements has a primary duration of 25 years, with renewal periods of a duration calculated with reference to the remaining useful life of the Shared Assets. At the end of the terms, the parties may renegotiate these arrangements or may elect, by agreement, to continue the existing arrangements. If CSXT or NSRC does not renew or otherwise continue the operating arrangements, the Allocated Assets will return to the pertinent Subsidiary of CRC (as would be the case in the event of an uncured default by an operator under the Allocated Assets Operating Agreements), unless other arrangements for the operation of the Allocated Assets were made, in each case subject to the provisions of law and regulations of the STB or other regulatory authority at the time in effect which may be pertinent to such return or alternative arrangements.


The Transaction Agreement (Section 8.9) provides that under certain circumstances CSX or NSC, or both, may effect a reorganization by exchanging its ownership interest in CRR Holdings LLC and its subsidiaries for a conveyance of its Allocated Assets or the stock of the Subsidiary that owns such Allocated

Assets. No authority from the STB for this is being sought in the present Application. It is not anticipated that any such reorganization would be effected until such time, if any, as the same might be done without material adverse federal income tax consequences to the parties concerned.

Statements made in this Joint Verified Statement concerning the provisions of the Transaction Agreement and of the Ancillary Agreements identified therein are summaries, intended to provide a useful condensed version of the provisions of those agreements and forms of agreement to the reader and do not purport to be complete. They are qualified by reference to the texts of the Transaction Agreement and the forms of Ancillary Agreement which are found in Volume 8 of this Application.


VERIFICATION

I, William H. Sparrow, declare under penalty of perjury that the foregoing is true and correct. Further, I certify that I am qualified and authorized to file this verified statement. Executed on the 19th day of June, 1997.


William H. Sparrow

VERIFICATION

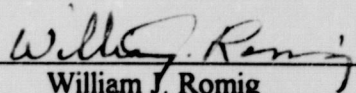
I, William H. Sparrow, declare under penalty of perjury that the foregoing is true and correct. Further, I certify that I am qualified and authorized to file this verified statement. Executed on the 19th day of June, 1997.


William H. Sparrow

VERIFICATION

I, William J. Romig, verify under penalty of perjury that I am Vice President and Treasurer of Norfolk Southern Corporation, that I have read the foregoing document and know its contents, and that the same is true and correct to the best of my knowledge and belief.

Executed on June 11, 1997.

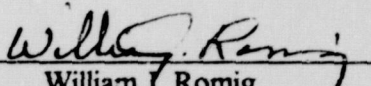


William J. Romig

VERIFICATION

I, William J. Romig, verify under penalty of perjury that I am Vice President and Treasurer of Norfolk Southern Corporation, that I have read the foregoing document and know its contents, and that the same is true and correct to the best of my knowledge and belief.

Executed on June 11, 1997.


William J. Romig

RAILROAD COMPANIES INTERCHANGING WITH CR, CSXT, OR NS

AA	Ann Arbor (Mich. Interstate)	CIRR	Chattahoochee Industrial
ABC	Akron & Barberton Cluster	CiSD	Colonel's Island
ACJR	Ashtabula, Carson & Jefferson	CLNA	Carolina Coastal
ACWR	Aberdeen, Carolina & Western	CMGN	Central Michigan
ADBF	Adrian & Blissfield	CMPA	Madison
AF	Alabama & Florida	CN	Canadian National
AGLF	Atlantic & Gulf	CP	Canadian Pacific
ALAB	Alabama	CPDR	Carolina Piedmont
ALQS	Aliquippa & Southern	CR	Conrail
ALS	Alton & Southern	CRL	Chicago Rail Link
ALY	Allegheny & Eastern	CRLE	Co ³ Rail
AMHR	Landisville	CSKR	C & S
AN	Apalachicola Northern	CSL	Chicago Short Line
APD	Albany Port District	CSO	Connecticut Southern
AR	Aberdeen & Rockfish	CSS	Chicago, South Shore & South Bend
ARA	Arcade & Attica	CSXT	CSX Transportation
ARC	Alexander	CTN	Canton
ASRY	Ashland	CTR	Clinton Terminal
ATW	Atlantic and Western	CTRN	Central of Tenn. Ry & Navigation
AVR	Allegheny Valley	CUOH	Columbus & Ohio River
AWW	Algers, Winslow & Western	CUVA	Cuyahoga Valley
BAYL	Bay Lines	CWCY	Caldwell County
BB	Buckingham Branch	CWRY	Commonwealth
BCLR	Bay Colony	DC	Delray Connecting Railroad
BDRY	Belvedere & Delaware	DER	Dunn Erwin Rwy.
BEEM	Beech Mountain	DL	Delaware-Lackawanna
BITY	Bristol Industrial Terminal	DLWR	Depew, Lancaster & Western
BLE	Bessemer & Lake Erie	DRHY	Durham Transport
BLOL	Bloomer Line	DT	Decatur Junction
BMH	Beaufort and Morehead City	DV	Delaware Valley
BNSF	Burlington Northern Santa Fe	EARY	Eastern Alabama
BPRR	Buffalo & Pittsburgh	ECBR	East Cooper & Berkeley
BRC	Belt Railway of Chicago	EEC	East Erie Commercial
BRW	Black River & Western	EFRR	Effingham
BS	Birmingham Southern	EIRC	Eastern Illinois
BSOR	Buffalo Southern	EJE	Elgin, Joliet & Eastern
BVRY	Brandywine Valley	EJR	East Jersey Railroad and Terminal
CA	Chesapeake & Albemarle	ELKR	Elk River
CALA	Carolina Southern	EPRY	East Penn
CBL	Conemaugh & Black Lick	ESHR	Eastern Shore
CBRM	Chillicothe-Brunswick Rail Maint.	ETRY	East Tennessee
CC	Chicago, Central & Pacific	FCEN	Florida Central
CKKY	Chattooga & Chickamauga	FEC	Florida East Coast
CCRA	Camp Chase Industrial	FGLK	Finger Lakes
CEIW	Central Indiana & Western	FI	Flats Industrial
CERA	Central of Indianapolis	FNOR	Florida Northern
CF	Cape Fear	FRR	Falls Road
CFWR	Caney Fork & Western	FWCR	Florida West Coast
CHR	Chestnut Ridge	GAFL	Georgia & Florida
CHRR	Chesapeake	GBRY	Gettysburg
CHTS	Chester Valley	GC	Georgia Central
CIND	Central of Indiana	GMRY	Great Miami & Scioto

RAILROAD COMPANIES INTERCHANGING WITH CR, CSXT, OR NS

GNRR	Georgia Northeastern	MDDE	Maryland & Delaware
GNWR	Genesee & Wyoming	MDLR	Midland Terminal
GR	Grand Rapids Eastern	ME	Morristown & Erie
GRWR	Great Walton	MGRI	MG Rail
GSM	Great Smokey Mountain Rwy.	MIDH	Middletown & Hummelstown
GSWR	Georgia Southwestern	MJ	Manufacturers' Junction
GU	Grafton & Upton	MKC	McKeesport Connecting
GWRC	Georgia Woodlands	MMID	Maryland Midland
GWWE	Gateway Eastern	MMRR	Mid-Michigan
GWWR	Gateway Western	MNJ	Middletown & New Jersey
HB	Hampton & Branchville	MPA	Maryland & Pennsylvania
HCRR	Honey Creek	MS	Michigan Shore
HESR	Huron & Eastern	MSCI	Mississippi Central
HMCR	Huntsville & Madison County	MSE	Mississippi Export
HRRC	Housatonic	MSO	Michigan Southern
HRS	Hollidaysburg & Roaring Springs	MSTR	Massena Terminal
IAIS	Iowa Interstate	MVRY	Mahoning Valley
IC	Illinois Central	MWHA	Mohawk, Adirondack & Northern
ICRK	Indian Creek	NBER	Nittany & Bald Eagle
IHB	Indiana Harbor Belt	NCR	Northern Central
ILW	Illinois Western	NCVA	North Carolina & Virginia
IN	Indiana Northeastern	NCYR	Nash County RR
INRD	Indiana	NDCR	NDC Railroad Co.
IOCR	Indiana & Ohio Central	NECR	New England Central
IORY	Indiana & Ohio Railway	NERR	Nashville & Eastern
ISRR	Indiana Southern	NHRR	New Hope & Ivyland
ISSR	ISS Rail	NOPB	New Orleans Public Belt
JEFW	Jefferson Warrior	NOW	Northern Ohio & Western
JKL	J. K. Line	NPB	Norfolk & Portsmouth Belt Line
JTFS	Juniata Terminal	NS	Norfolk Southern
JVRR	Juniata Valley	NSHR	North Shore
KBSR	Kankakee, Beaverville & Southern	NSR	Newburg & South Shore
KCS	Kansas City Southern	NTRY	Nimishillen & Tuscarawas
KJR	Kiske Junction	NYA	New York & Atlantic
KT	Kentucky & Tennessee	NYCH	New York Cross Harbor
KWT	KWT Rwy.	NYLE	New York & Lake Erie
LAL	Livonia, Avon & Lakeville	NYSW	New York, Susquehanna & Western
LANO	Lancaster Northern	OCTL	Oil Creek & Titusville
LC	Lancaster & Chester	OGEE	Ogeechee
LIRC	Louisville & Indiana	OHCR	Ohio Central
LNAL	Louisville, New Albany & Corydon	OHIC	Ohi-Rail
LRS	Laurinburg & Southern	OHRY	Owego & Harford
LSRC	Lake State	OMID	Ontario Midland
LT	Lake Terminal	OSRR	Ohio Southern
LVR	Lycoming Valley	PAL	Paducah & Louisville
LW	Louisville & Wadley	PAM	Pittsburgh, Allegheny & McKees Rocks
LXOH	Lexington & Ohio	PBL	Philadelphia Belt Line
LXVR	Luxapalila Valley	PBNE	Philadelphia, Bethlehem & New England
MBRR	Meridian & Bigbee	PBR	Patapsco & Back Rivers
MCER	Massachusetts Central	PBRR	Pine Belt Southern
MCLR	McLaughlin Line	PDRR	Pee Dee River
MCRR	Monongahela Connecting	PICK	Pickens

RAILROAD COMPANIES INTERCHANGING WITH CR, CSXT, OR NS

PIR	Pittsburgh Industrial	TSBY	Tuscola & Saginaw Bay
PJR	Port Jersey	TSRR	Tennessee Southern
POV	Pittsburgh & Ohio Valley	TTIS	Transkentucky Transportation
PPU	Peoria & Pekin Union	TTR	Talleyrand Terminal
PRV	Pearl River Valley	TYBR	Tyburn
PRYL	Port Royal	UCIR	Union County Industrial
PSR	Pittsburg & Shawmut	UMP	Upper Merion & Plymouth
PTSC	Port Terminal Railroad of South Carolina	UP	Union Pacific
PUCC	Port Utilities Commission of Charleston	URR	Union Railroad
PVRR	Pioneer Valley	VR	Valdosta
PW	Providence & Worcester	VRR	Vaughan
QBT	Quincy Bay Terminal	VRR	Vandalia
RBMN	Reading, Blue Mountain & Northern	WCOR	Wellsboro & Corning
RCC	Red-Mont	WCTR	WCTU Company
RJCM	R. J. Corman, Memphis	WE	Wheeling & Lake Erie
RJCN	R. J. Corman, Allentown	WGCR	Wiregrass Central
RJCP	R. J. Corman, Pennsylvania	WHOE	Walking Horse & Eastern
RJCR	R. J. Corman	WJ	West Michigan
RJCW	R. J. Corman, Western Ohio	WKR	Western Kentucky
RSM	Railroad Switching Serv. of Missouri	WNFR	Winifrede
RSNR	Red Springs & Northern	WSOR	Wisconsin & Southern
RSR	Rochester & Southern	WSRY	Winamac Southern
RT	River Terminal	WSS	Winston-Salem Southbound
SAN	Sandersville	WTNN	West Tennessee
SB	South Buffalo	WTRM	Warren & Trumbull
SBLN	Sterling Belt Line	WTRY	Wilmington Terminal
SBRR	Stourbridge	WW	Winchester & Western
SBVR	South Branch Valley	WWRC	Wilmington & Western
SCRF	South Carolina Central	WYEC	WYE Transportation
SCTR	South Central Tennessee	YARR	Youngstown & Austintown
SCXF	South Central Florida Express	YB	Youngstown Belt
SGLR	Seminole Gulf	YKR	Yorkrail
SH	Steelton & Highspire	YVRR	Yadkin Valley
SIND	Southern Indiana		
SLRR	St. Lawrence & Raquette River		
SM	St. Mary's		
SLRS	Switching Management Services		
SOM	Somerset		
SRC	Strasburg		
SRNJ	Southern Railroad of New Jersey		
SSDK	Savannah State Docks		
ST	ST Rail System		
STLH	St. Lawrence & Hudson		
SUAB	Southern Alabama		
SVRR	Shamokin Valley		
SWP	Southwest Pacific		
TASD	Terminal Railway, Ala. State Docks		
TBRY	Thermal Belt		
TCKR	Turtle Creek Industrial		
TMSS	Towanda-Monroeton Shippers Lifeline		
TPW	Toledo, Peoria & Western		
TRRA	Terminal RR Assoc. of St. Louis		

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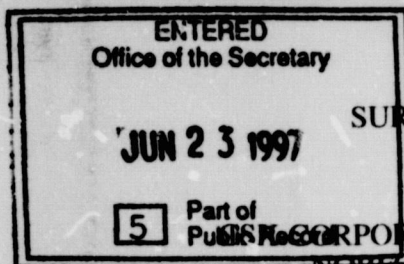
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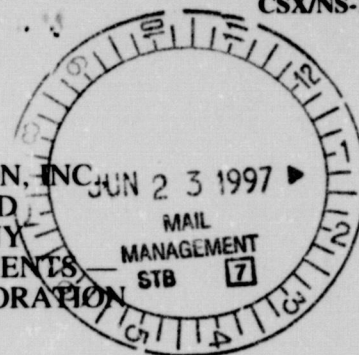
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BEFORE THE
SURFACE TRANSPORTATION BOARD

Finance Docket No. 33388

NORFOLK SOUTHERN CORPORATION AND CSX TRANSPORTATION, INC.
NORFOLK SOUTHERN CORPORATION AND
NORFOLK SOUTHERN RAILWAY COMPANY
— CONTROL AND OPERATING LEASES/AGREEMENTS
CONRAIL INC. AND CONSOLIDATED RAIL CORPORATION



RAILROAD CONTROL APPLICATION

VOLUME 2A OF 8

**CSX STATEMENTS CONCERNING
MARKET IMPACTS, COMPETITION AND SHIPPER BENEFITS
(EXHIBIT 12)**

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JUN 23 1997

**SURFACE
TRANSPORTATION BOARD**

VOLUME 2

TABLE OF CONTENTS

PART A -- CSX STATEMENTS CONCERNING MARKET IMPACTS, COMPETITION, AND SHIPPER BENEFITS

Verified Statement of Joseph P. Kalt	1
Verified Statement of Darius W. Gaskins, Jr..	88
Verified Statement of William M. Hart	136
Verified Statement of Howard A. Rosen	154
Verified Statement of Joseph G. B. Bryan	240
Verified Statement of John Q. Anderson	275
Verified Statement of Robert L. Sansom	313
Verified Statement of Raymond L. Sharp	347
Verified Statement of Dale R. Hawk	380
Verified Statement of Christopher P. Jenkins	403
Verified Statement of John W. Orrison	453

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--CONTROL AND OPERATING LEASES/AGREEMENTS--
CONRAIL INC. AND CONSOLIDATED RAIL CORPORATION**

VERIFIED STATEMENT OF JOSEPH P. KALT

In the Matter of

**CSX CORPORATION AND CSX TRANSPORTATION, INC., NORFOLK SOUTHERN
CORPORATION AND NORFOLK SOUTHERN RAILWAY COMPANY
– CONTROL AND OPERATING LEASES/AGREEMENTS –
CONRAIL INC. AND CONSOLIDATED RAIL CORPORATION**

STB Finance Docket No. 33388

**VERIFIED STATEMENT
OF
JOSEPH P. KALT**

I. INTRODUCTION

I.A Witness Background and Qualifications

My name is Joseph P. Kalt. I am the Ford Foundation Professor of International Political Economy and Chairman of the Economics and Quantitative Methods Section at the John F. Kennedy School of Government, Harvard University, Cambridge, Massachusetts, 02138. I have also been the Academic Dean for Research, Faculty Chair of the Kennedy School's Environmental and Natural Resources Program, Chairman of Degree Programs, and Chairman of Ph.D. Programs. In addition, I work as an economic consultant with The Economics Resource Group, Inc., One Mifflin Place, Cambridge, Massachusetts, 02138. The Economics Resource Group is an economics consulting firm specializing in matters of antitrust and regulated industries.

I received my Ph.D. (1980) and my Master's (1977) degrees in economics from the University of California, Los Angeles, and my Bachelor's (1973) degree in economics from Stanford University. I am a specialist in the economics of regulation and antitrust, with particular emphasis on the natural resource, transportation, and financial sectors. I have published, taught, and testified extensively on the regulation of industry in the United States.

Prior to joining the faculty at Harvard in 1978, I served on the staff of the President's Council of Economic Advisers (1974-1975), with responsibility for economic analysis of regulated industries, including railroads. From 1978-1986, I served as an Instructor, Assistant Professor, and Associate Professor of Economics in the Department of Economics, Harvard University. In these capacities, I had primary responsibility for teaching the graduate and undergraduate courses in the economics of antitrust and regulation. Transportation economics and policy played important roles in these courses. Since joining the faculty of the Kennedy School as a Professor in 1986, I have continued to teach on such matters in graduate courses on microeconomics for public policy, regulation and antitrust, and natural resource policy.

In addition to my research and teaching, I have testified in numerous legal, regulatory, and legislative proceedings concerning matters of competition and regulation. I have submitted expert verified statements before the Surface Transportation Board (STB) and its predecessor agency, the Interstate Commerce Commission (ICC), on a number of occasions, including proceedings related to the merger of Burlington Northern and Santa Fe and the merger of Union Pacific and Southern Pacific. I have also provided testimony as an expert on mergers and related issues of competition before the U.S. Congress, the U.S. Federal Energy Regulatory

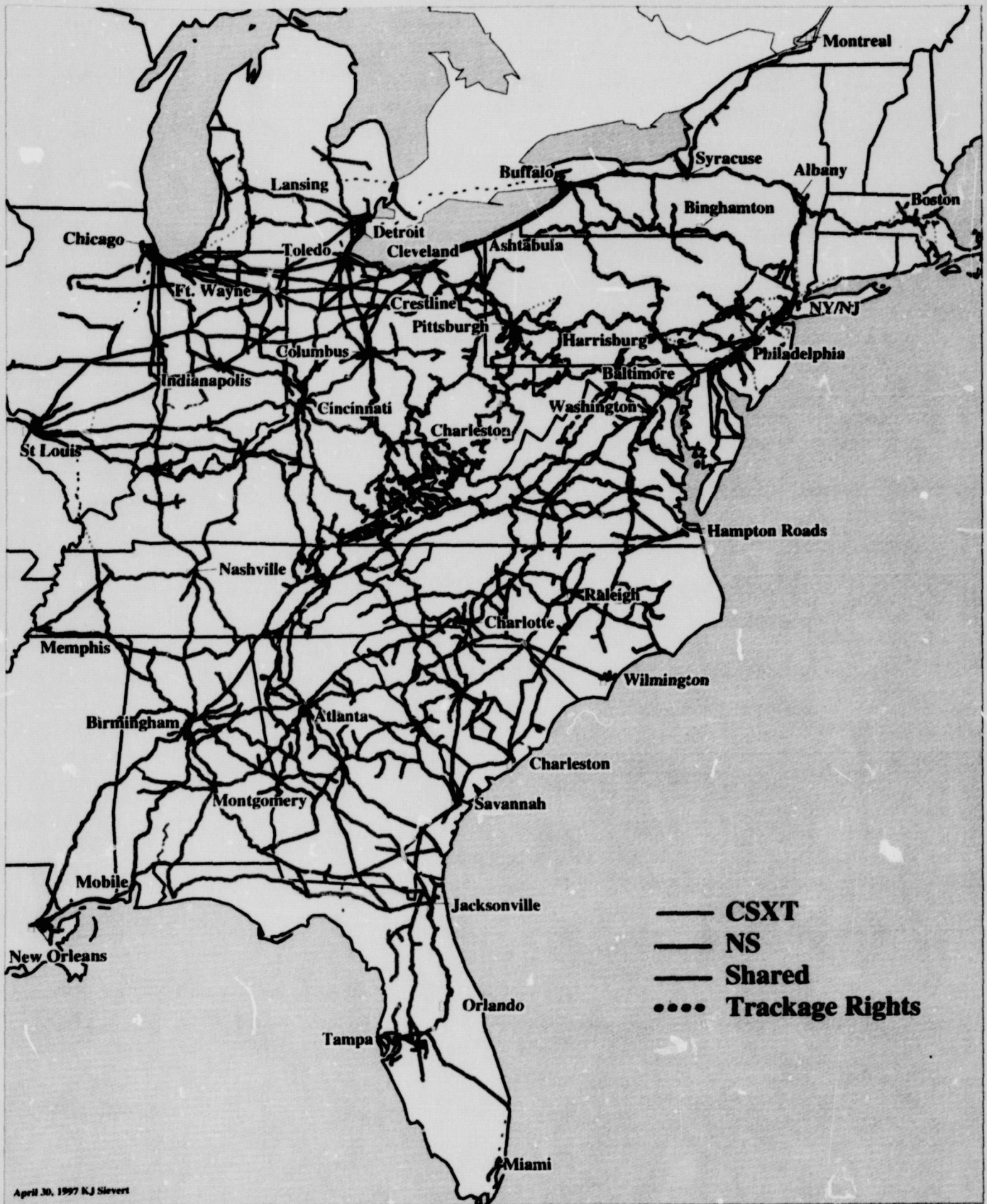
Commission, the U.S. Department of Commerce, the U.S. Department of the Interior, various state public utility commissions, the Federal Court of Australia, and in numerous U.S. Federal Court proceedings. My complete curriculum vitae is attached to this statement.

In the present proceeding, I have been asked by CSX Corporation and CSX Transportation ("CSX") to assess the proposed joint acquisition of Conrail Inc. ("Conrail") by CSX and Norfolk Southern Corporation and Norfolk Southern Railway Corporation ("NS"). In preparing my statement, I have reviewed and relied upon information drawn from a wide array of public and private sources, including published research and data on railroad regulation and performance, data and analyses provided to me at my request by CSX Transportation, data and analysis from public sources, and the analyses and conclusions reflected in the verified statements of others in this proceeding. The conclusions and opinions expressed in this statement are my own. In particular, they have not been produced by or for Harvard University, and I am not representing Harvard in my capacity as an expert in this matter.

I.B Overview and Summary of Findings

CSX and NS jointly propose to acquire control of Conrail and to divide and integrate its routes and assets into the CSX and NS systems. This reallocation of Conrail's operations will expand the respective networks of CSX and NS by incorporating the track, yards, rolling equipment, and other assets of Conrail into the respective rail systems of CSX and NS. In certain locales, Conrail assets will be used by both CSX and NS, enabling each to market rail services to customers separately. The basic geographic structure of the expanded rail systems is shown in Figure 1.

Figure 1
Integrated CSXT and NS Systems



April 30, 1997 K.J. Sievert

CSX and NS are both major Class I railroads currently serving the Southeast and Midwest. Conrail is presently the only railroad operating an extensive network serving the Northeast north of Philadelphia, with its system also extending into the Midwest to Chicago and St. Louis. The acquisition of Conrail and incorporation of the components of Conrail into CSX and NS will enable them to integrate the nation's northeastern rail lines into two competing eastern rail networks. In so doing, CSX and NS anticipate being able to enhance substantially the quality of rail and intermodal service that they are able to provide, while also introducing increased rail options in some of the most heavily utilized transportation lanes in the country. By rationalizing the integration of the northeastern rail system with the remainder of the east-of-the-Mississippi network, CSX and NS also expect to realize significant cost savings and productivity improvements.

In this statement, I report results of my investigation of the implications of the CSX/NS acquisition of Conrail for the public's interest in a competitive and efficient rail system. After this introductory section, Section II examines the context in which the CSX/NS proposed transaction is arising, focusing on both the economic factors and historical background that are helpful in understanding the long-overdue rationalization of the eastern rail network. In Section III, I discuss the basic structure of the proposed joint acquisition of Conrail, including the nature of operational changes the acquisition will permit and the creation of areas where both CSX and NS will have access to traffic where previously Conrail was the only rail carrier. Section IV investigates the prospective effects on the performance of the nation's rail system, including the

service improvements available to the public, the prospects for cost savings, and the enhancement of competition.

Based on the analyses set forth below, I believe it is clear that the proposed acquisition of Conrail by CSX and NS promotes the public interest. In reaching this conclusion, several major findings stand out:

- The CSX/NS acquisition of Conrail represents a long-overdue rationalization of the nation's railroad system. It is undertaken by two strong railroad systems that are particularly well-positioned to deliver the benefits of such rationalization to the public. Without the successful consummation of the proposed transaction, the nation's economy will continue to underperform its potential as a result of the inefficient integration of its heavily utilized northeastern rail lines into the rest of the eastern railroad system.
- The joint acquisition provides for significant and demonstrable economies of network integration. These include expanded long-haul, single-line service, greatly enhanced opportunities for efficient asset and traffic flow management, and substantial economies of density and scope present in integrated network operation and management. The measurable benefits are large: For CSX alone, expected cost savings from its portion of the Conrail integration amount to more than \$470 million annually, and increased rail traffic attracted by service improvements is projected to be at least \$345 million per year.
- The allocation of the various portions of the current Conrail system between NS and CSX, the creation of notable joint-service areas, and the provision of dual railroad service in the few areas where the transaction otherwise would portend a single post-acquisition rail option promise to protect and enhance competition. Particularly in the densely trafficked service lanes emanating into and out of the metropolitan area of New York City and northern New Jersey, rail options will be increased for a large number of shippers.

- From a public policy perspective concerned with the public's interest in a healthy national economy, the proposed joint acquisition and separate integration of Conrail by CSX and NS should go forward. The evidence is compelling that separate integration of the components of Conrail into the CSX and NS systems will serve the public's interest by producing synergies of network integration that cut costs, enhance productivity, and improve service quality for the public, while, in this case, expanding the number of rail options in some of the most important markets in the country. More efficient, integrated, and high-quality transportation linkages are integral to promotion of a productive and internationally competitive U.S. economy. It should be the role of public policy to see that the acquisition takes place expeditiously.

II. THE CONTEXT OF THE CSX/NS TRANSACTION — A LONG-OVERDUE RATIONALIZATION OF THE NATION'S RAIL SYSTEM

II.A The Economics of Integrated Rail Networks

Beginning with major regulatory reforms in the 1970s and certainly since the passage of the Staggers Rail Act of 1980, the U.S. railroad industry has been on a path of substantial improvement in its performance and its contribution to the nation's economy. Such steps as greater rate flexibility, substantial loosening of regulation in competitive markets, opportunities for enhanced service offerings, and restructurings through mergers have brought railroads under the discipline of dynamic marketplaces. The result has been a dramatic improvement in the productivity of the nation's railroad system, with efficiency gains for the system as a whole estimated to be running by the early 1990s as high as \$15 billion per year and operating cost improvements calculated to be on the order of 25%.¹ These benefits have been shared by both

¹ See U.S. General Accounting Office, *Railroad Regulation: Economic and Financial Impacts of the Staggers Rail Act of 1980*, GAO/RCED-90-80, May 16, 1990; Barnekov, C.C. and A.N. Kleit, "The Efficiency Effects

the railroads, who have been able to repair previously questionable financial structures and prospects, and the nation's shippers, who have had access to a railroad system that is more cost-effective and that can deliver quality service.

Ownership restructurings have played an important part in the performance of the railroad industry since the 1970s. The historical ownership boundaries that divided one line from another and one section of track from another were born of a century of politics rather than marketplace discipline and incentives. The result was a rail network with boundaries that were largely economically arbitrary and that inhibited the ability of railroads and their customers to realize the substantial economies of density (i.e., volume) and scope (i.e., geographic and service coverage) that are inherent in a network-based system.²

Regulatory reform in the 1970s and 1980s and the implementation of reforms since the Staggers Act have allowed the forces of the marketplace to bear more directly on the ownership structure of railroad assets. Increased freedom to abandon low-density, unprofitable service and less public policy insulation of railroads' profits from market forces have increased the responsibility for performance that is borne by railroad management. Mergers, acquisitions, and restructurings have been a key consequence. In 1980, for example, CSX Transportation was

of Railroad Deregulation in the United States," *International Journal of Transport Economics*, February 1990, at 21-36; Barnekov, C.C., "Railroad Deregulation: The Track Record," *Regulation*, 1987 at vol. 11, no. 1.

² For the purposes of this report, the concept of *network economies* embraces the efficiency attendant to railroads which arises out of large size (e.g., ability to cover high fixed costs) and broad scope of production (e.g., ability to offer diverse service and product offerings jointly at reduced cost). The concept also encompasses the "external" value to each *node* (i.e., point served) on the network of having more nodes located on the network—for example, the telephone network's value increases to any user of the network the more people are on the network.

formed by merger of the Chessie System (including the B&O, the C&O, and the Western Maryland) and the Seaboard system (including the Seaboard Coast line and the Louisville & Nashville).³ NS was formed two years later out of the Norfolk and Western and the Southern Railway System.⁴ The West saw relatively modest consolidations in the 1980s; however, the past half-decade has seen the two largest consolidations in railroad history in the BN/Santa Fe and UP/SP mergers.

These kinds of consolidations and rationalizations of railroad system ownership clearly have been motivated by the network economies of density and scope that can be reaped by overcoming the historical balkanization of the nation's railroad structure. Efficient integration of network systems permits costs—both overhead/fixed and operating costs—to be saved, as duplicative facilities and operations are eliminated, interrelated network “nodes” (e.g., junctions, yards, repair facilities, etc.) are coordinated, and flows on the network are shortened and quickened. At the same time, network customers commonly realize improved service quality as speed and reliability are enhanced, their equipment (e.g., shipper-owned rail cars) is more productively utilized, and the frequency of service is increased. Moreover, when new sections are added to a network, as with the integration of Conrail's components into the CSX and NS systems, the scope of the network is increased, enabling customers to realize extended rail hauls to more distant markets, increased single-line options (with attendant reductions in handling and

³ CSX Corporation -- Control -- Chessie System, Inc., and Seaboard Coast Line Industries, 363 ICC 521 (1980).

⁴ Norfolk Southern Corporation -- Control -- Norfolk and Western Railway Company and Southern Railway Company, 366 ICC 173 (1982).

classifications, and hence reduced opportunity for damage and delay), shorter routings, and reduced transactions costs that come from having to deal with multiple carriers.

Interestingly, traditionally regulated and/or publicly owned network industries around the world, from railroads and pipelines to telecommunications and airlines, are under pressure to expand the scope of market forces and rationalize operations and ownership. This appears to be the consequence, even in the United States, of: i) pressure that expanding international trade puts on countries to keep their economies as efficient as possible; and ii) the pervasive impact network industries have on the performance of economies. As noted by railroad shippers in this case, virtually no place and no business in the U.S. economy is immune from international competition anymore; and an efficient rail system is a key component to keeping the flow of goods and materials supportive of industrial competitiveness:

The proposed transaction would give us [Magotteaux, a maker of steel grinding balls] quicker, better access to meet demand wherever it arises. As a company that relies on barges and trucks, as well as rail, we need strong intermodal support. Even small companies are moving deep into international markets.⁵

II.B The Public Restructuring of the Northeastern Rail System

In this economic and regulatory setting, Conrail stands out as a (remaining) anomaly. As discussed below, its ownership boundaries and structure remain the product of political and legislative responses to past bankruptcies and related crises. However expedient and/or prudent

⁵ Statement of Magotteaux; see also Statements of Emerald International Corporation, Griffin Pipe Products Co., C.M. Tucker Lumber Company, Castrol North America Automotive, Inc., and Hercules, Inc.

such responses may have been under contemporaneous circumstances, the result now is a railroad system in the northeastern U.S. which presents the shipping public with limited rail options and impedes the development of superior service offerings. Symptomatic of these shortcomings is the rising and disproportionately high share of traffic that has shifted to trucks in the Northeast. The rail share of intercity freight transportation (in tons) in the East in 1995 was 12%, compared to 18% for rail nationwide. In CSX-Conrail traffic lanes, this share was only 10% (Gaskins V.S. at Figure 4a). As discussed below, this relatively poor performance in the Northeast is a penalty now being paid because of past policy decisions.

The Consolidated Rail Corporation, the rail subsidiary of Conrail, was formed out of seven bankrupt carriers whose networks were too small or too redundant to be financially viable (see Hoppe V.S.). Not even a series of mergers, including mergers of parallel carriers (e.g., the Pennsylvania Railroad and the New York Central into the Penn Central) was sufficient to restore profitability. Two years after its creation by merger in 1968, the Penn Central, which carried one-fifth of all U.S. rail-freight and in whose territory lay 55% of the nation's manufacturing plants, filed for bankruptcy.⁶ The Penn Central bankruptcy was accompanied by eight other Northeast railroads' filing for bankruptcy between 1967 and 1973.⁷ In this setting, Congress created the U.S. Railway Association ("USRA") and authorized it to explore options for the organization of northeastern railways into a new company, Conrail.

⁶ Musolf, Lloyd. *Uncle Sam's Private, Profitseeking Corporations* (Lexington Books: Lexington, MA, 1983), at 71; and *The Revitalization of Rail Service in the Northeast: The Final Report of the United States Railway Association* (USRA, December 1986), at 1-3.

⁷ Musolf, at 71. Six carriers would join the Penn Central in becoming Conrail (see discussion that follows).

Preservation of competition was one of the policy mandates of the USRA, as was the financial solvency of the ultimate carrier(s) in the Northeast. The USRA's preferred "Three Systems East" plan was to have three carriers serve the Northeast and Midwest with no monopoly at any major location. The USRA's next most preferred option was to create one company out of seven bankrupt carriers. The reluctance of the Norfolk & Western and the inability of the Chessie System to participate in the Three Systems East plan as buyers of lines, along with Congressional concerns about having to bail out a financially troubled eastern carrier yet again, yielded an ultimate resolution—seven bankrupt carriers' mainlines were incorporated into Conrail.⁸ Hence, the structure of Conrail reflects the coincidental bankruptcy of several railroads, the reluctance and inability of two carriers to buy into the federal restructuring, and the sacrifice of perceived competitive vigor for a salvaged carrier's financial viability.

When the Staggers Act pushed Conrail to address the questions of continued federal support or privatization in the early 1980s, Conrail's management presented the alternative of splitting the system into north and south systems, with the north section integrated into CSX and the south section integrated into the Norfolk & Western—an alternative resembling the present proposed transaction quite closely. This alternative "was chosen to illustrate how competition could be enhanced over the eastern half of Conrail's present route structure and to predict what opportunities for improvement were possible in the overall operating efficiency of the northeast

⁸ *The Revitalization of Rail Service in the Northeast*, at 1-10 and Hoppe V.S.

rail system.”⁹ The alternative was thwarted, however, when Conrail was eventually privatized under Congressional mandate in 1986.

The case is strong that the network inherited by the privatized Conrail has impeded the ability of the Conrail system to operate as efficiently and effectively as possible. As one perceptive shipper observed: “It is no use blaming the railroads. The problem lies in the way in which the railroads themselves are configured.”¹⁰ Figure 1 shows the Conrail system and Figure 2 sets out the Business Economic Areas (“BEAs”) where Conrail operates. As indicated, Conrail is the sole Class I railroad providing service into and out of the most densely trafficked lanes on its system—those to and from the New York City metropolitan area.¹¹ Truck competition has made huge inroads into the traffic in the New York lanes, as shown in Figure 3. In fact, truck competition for service into and out of Conrail’s service territory is pervasive (see *Jenkins V.S.*, *Gaskins V.S.*, *Hawk V.S.*, and *Anderson V.S.*).

Of particular concern from a competitive perspective, shippers and commodity types for which rail has the best chance of being competitive—e.g., heavy, bulk, and relatively time-insensitive traffic items—have been left with only one major rail option.¹² Even for these types

⁹ Conrail, *Options for Conrail—Conrail’s Response to Section 703(c) of the Staggers Rail Act of 1980*, at Chapter 11-4.

¹⁰ Statement of Natrochem, Inc.

¹¹ *De minimis* volumes of traffic are handled into/out of the New York metropolitan area via the NYSW (utilizing trackage rights on Conrail beyond Sparta, NJ to Binghamton, NY) and minor haulage arrangements (e.g., with BNSF). Similarly small volumes are also handled by the Delaware and Hudson (i.e., Canadian Pacific) into/out of Newark, NJ via Conrail trackage rights.

¹² As indicated in Figure 2, a number of other smaller BEAs also have seen Conrail as their only Class I option. These include Boston, Syracuse, Hartford, Williamsport, and Rochester.

Figure 2

RAIL SERVICE IN CONRAIL BEAs

BEA	Conrail Traffic (Thousand Units)*	Class I Railroads	Shortline Railroads	Trackage**
New York, NY	583	CR	NYSW, LI, PW	
Chicago, IL	360	CR, BNSF, CN, CPRS, CSXT, NS, IC, UPSP	EJE, CC, CSS, IHB	
Philadelphia, PA	348	CR, CSXT	SLRS	
Cleveland, OH	206	CR, CSXT, NS	WE, BLE	
Baltimore, MD	174	CSXT	MMID, MDDE	CR
Harrisburg, PA	173	CR, CSXT	GETY	
Boston, MA	155	CR	BM, PW	
Pittsburgh, PA	147	CR, CSXT	BLE, BPRR, PS, WE	
Wheeling, WV	120	CR, CSXT	WE	
Buffalo, NY	95	CR, NS	BPRR	CPRS
Detroit, MI	92	CR, CN, CSXT, NS	AA, HESR, TSBY	CPRS
Columbus, OH	85	CR, CSXT, NS		
Toledo, OH	73	CR, CN, CSXT, NS	WE, AA	
St. Louis, MO	60	CR, BNSF, CSXT, IC, NS, UPSP	INRD, GWWR	
Syracuse, NY	58	CR	NYSW, SLRR	
Hartford, CT	54	CR	PW, NECR, BM	CR
Williamsport, PA	53	CR	PS, BPRR	
South Bend, IN	46	CR, CN, CSXT, NS	CSS	
Indianapolis, IN	43	CR, CPRS, CSXT	INRD, ISRR, LIRC	
Albany, NY	42	CR, CPRS	BM, VTR	
Washington, DC	42	CR, CSXT, NS	WE, SBVR, MMID	
Youngstown, OH	40	CR, CSXT	BLE	
Dayton, OH	29	CR, CN, CSXT		
Rochester, NY	27	CR	GNWR, RSR, LAL	
Lansing, MI	25	CR, CN, CSXT		
Binghamton, NY	21	CR, CPRS	NYSW	
Charleston, WV	21	CR, CSXT, NS		
Cincinnati, OH	19	CR, CN, CSXT, NS		
Erie, PA	18	CR, NS	BLE, OCTL	
Morgantown, WV	16	CR, CSXT		
Grand Rapids, MI	10	CR, CSXT	TSBY	
Scranton, PA	10	CR, CPRS		
Lima, OH	9	CR, CN, CSXT, NS	RJCW	
Lafayette, IN	9	CR, CSXT, NS	TPW	
Anderson, IN	7	CR, NS		
Fort Wayne, IN	7	CR, CSXT, NS		
Kokomo, IN	6	CR, NS	TPW	
Champaign, IL	3	CR, CSXT, IC, NS		
Terre Haute, IN	2	CR, CPRS, CSXT	INRD	
Other	9			
TOTAL	3,300			

* Traffic represents carloads and intermodal trailers of Conrail terminations and interline originations.

** Includes railroads with more than 5% of the volume in the BEA, as shown by the 1995 STB Waybill Sample.

Source: 1995 STB Waybill Sample

Figure 3

**TRAFFIC MOVING OVER NEW YORK LANES WHICH WILL HAVE TWO
SINGLE-LINE RAIL ALTERNATIVES**

(\$millions/year)

		Carload		Intermodal		Truck		Total	
		Revenue	Lane Share	Revenue	Lane Share	Revenue	Lane Share	Revenue	Lane Share
16 15	NEW YORK - CHICAGO	\$ 56.7	21%	\$ 100.3	38%	\$ 108.9	41%	\$ 265.9	100%
	NEW YORK - ST. LOUIS	\$ 15.3	16%	\$ 12.6	13%	\$ 66.0	70%	\$ 93.9	100%
	NEW YORK - SOUTHEAST	\$ 71.5	7%	\$ 30.4	3%	\$ 896.6	90%	\$ 998.5	100%

of traffic, truck penetration has been substantial. This not only attests to the strength of truck competition, but also speaks volumes about the impediments to high-quality rail service that the politically truncated Conrail network has imposed on Conrail. Numerous commodities that elsewhere are prime candidates for rail service find truck service in the Northeast to be the preferred alternative. As one shipper of fertilizer notes: "Put simply, we don't ship by rail. It's not cost-competitive for us."¹³ Based on the statements of shippers in this proceeding, trucks are competitive and/or dominant alternatives for certain shippers of such commodities as fertilizer,¹⁴ bulk salt,¹⁵ sand,¹⁶ coal,¹⁷ and rock.¹⁸ When manufacturers of such products are driven to truck service—in some cases, entirely¹⁹—instead of rail, there is strong indication of a rail system that cannot be operated efficiently to meet the public's needs.

The impediments to performance that its structure imposes on Conrail reflect the system's lack of efficient integration with the web networks of the primary railroads that it touches. This is frequently cited as an impediment to service quality in the Northeast. In fact, numerous shippers commenting on the CSX/NS proposal have cited concerns regarding deficiencies that would be expected from inadequate network size and integration: poor

¹³ Statement of Alger Farms, Inc., a receiver of fertilizer and a shipper of corn and potatoes.

¹⁴ Statement of Ag/Gro Fertilizer Company, Inc.

¹⁵ Statement of Gibraltar National Corporation.

¹⁶ Statements of The Nugent Sand Company and Keener Sand & Clay Company.

¹⁷ Statement of Richmond Power & Light.

¹⁸ Statement of 3M.

¹⁹ Statements of Alger Farms, Inc. and Richmond Power & Light, which ships coal.

equipment utilization,²⁰ subpar interchange convenience and speed,²¹ inconsistency and unreliability,²² high transactions costs,²³ and loss and delay attributable to excessive interlining and freight handling.²⁴ Shippers also cite concerns, verging on frustration, about particular attributes of Conrail's structure and operations, including concerns regarding rate competition,²⁵ shortages of equipment (especially coal and scrap metal cars),²⁶ and port service in the New York/New Jersey area.²⁷ Conrail's safety record is a further item of importance to certain shippers (e.g., of chemicals),²⁸ and, as the Verified Statement of Christopher Jenkins (CSX) documents, CSX has a better safety record.

In short, the Conrail system as it is currently structured reflects a legacy of political and legislative concerns that have insulated the system from the marketplace forces that would otherwise determine its structure and operation. The result is that the present Conrail system holds potential for as-yet unrealized improvements in its contributions to the nation's rail

²⁰ See, e.g., Shipper Statements of Bryce-Milford Grain Corporation, Griffin Pipe Products Co., Hub Group, Inc., Ameripol Synpol Corporation, Westway Trading Corporation, and LCI Ltd.

²¹ See, e.g., Shipper Statements of Hawkins Chemical, Inc., Midland Resources, Inc., Nissan North America, Inc., S&D Application, Inc., and Ajax Turner Company.

²² See, e.g., Shipper Statements of Long Island Intermodal, 138 Scrap, and Gibraltar National Corporation, and Tennis Supply Company.

²³ See, e.g., Shipper Statements of Magotteaux, Inc., Sunds Defibrator, and Duferco Limited.

²⁴ See, e.g., Shipper Statements of Stein Steel, Mississippi Materials Co., Progressive Affiliated Lumbermen, Ross Enterprises, and Resource Materials Corporation.

²⁵ See, e.g., Shipper Statements of American Honda Motor Co., Inc., Mazda Motor of America, Inc., Griffin Pipe Products Co., Ogiwara America Corporation, Carbonic Industries Corporation, Cabot Corporation, and Hercules, Inc.

²⁶ See, e.g., Shipper Statements of Commonwealth Aluminum Corporation, Frankfort Scrap Metal, Co., Hub Group, Inc., Marine Coal Sales Company, Pen Coal Corporation, Reynolds Metal Company, Colonial Brick Company, Inc., H. Hirschfeld Sons Company, and Davis Industries, Inc.

²⁷ See, e.g., Shipper Statements of Atlantic Systems Transport, Inc. and Kimberly-Clark Corporation.

²⁸ See, e.g., Shipper Statements of Boliden Intertrade, Inc., Lockhart Chemical, and Midland Resources, Inc.

network. This potential is the source of the willingness to pay for Conrail's assets that CSX and NS have manifested in their proposal. This is precisely how well-functioning markets operate to rationalize ownership structures when those structures are underperforming. The results for both CSX and NS and the national economy will turn on the success of the specific structures and operating plans of the two acquiring carriers.

III. THE STRUCTURE OF THE CSX/NS ACQUISITIONS AND INTEGRATION OF CONRAIL

As set forth in the definitive transaction agreement between CSX and NS and the CSX and NS Operating Plans (Exhibit 13-CSX and Exhibit 13-NS), CSX and NS will jointly acquire Conrail and divide operational control of its assets. In its entirety, the agreement is quite complex, spelling out in detail the allocation of rail lines, classifying yards, repair shops, rolling stock, locomotives, and other assets. In its essentials, however, the proposed joint acquisition preserves the routes currently served by Conrail, integrates various of those routes into the CSX or the NS systems, maintains dual rail options where the transactions might otherwise leave shippers with a single rail option, and in certain traffic lanes, provides shippers service by two rail carriers where now only one (Conrail) is available.

To acquire Conrail, the two companies formed a joint entity to purchase all outstanding shares of Conrail. The contributions of CSX and NS to that entity's capitalization are approximately 42% and 58%, respectively. Under the terms of the agreement, certain rail lines, yards, and repair shops will be operated independently by CSX, others will be operated independently by NS, and in certain shared assets areas, both CSX and NS will be able to serve

shippers and receivers. Each company will have independent ability to compete for traffic over its expanded network, determining its own schedules, level of service, equipment availability, and rates.

In arriving at the proposed division of the Conrail system, CSX and NS focused on producing the best fit with their existing systems to enhance their ability to provide efficient, high-quality service to customers. In fact, post-transaction CSX and NS will each operate networks with approximately equal spans across the entire eastern U.S., serving customers in the Northeast, Midwest, and Southeast. In the apportionment of the Conrail system, CSX and NS will each control two of the four legs of the so-called "Conrail X." CSX will operate the lines between Boston and Cleveland and between Cleveland and St. Louis. In addition, CSX will operate Conrail's line between New York and Philadelphia, the line between Toledo and Columbus, and the line that connects Crestline, OH and Chicago (now owned by NS). NS will operate lines between Chicago and Cleveland and between Cleveland and northern New Jersey. NS will also operate the line serving northern New Jersey and Buffalo through Binghamton, NY and the line between Buffalo and Harrisburg, PA. In addition, NS will operate most Conrail lines in Michigan, Maryland, Delaware, and Pennsylvania, as well as routes between Toledo and Detroit, Columbus and Cincinnati, and Columbus and Charleston, WV. In general, trackage rights presently granted to Conrail by CSX or NS will be assigned to NS or CSX, respectively.

In order to accommodate CSX's portion of Conrail's traffic as well as projected increases in traffic, CSX will undertake certain improvements to lines, connections, and intermodal and automotive facilities. These improvements will enable CSX to integrate most efficiently the

acquired components of Conrail into its system and form the expanded CSX route structure.²⁹ Some track segments will be upgraded with double-tracking, cleared for double-stack or multi-level traffic, and/or equipped with computerized signaling systems. For example, CSX's existing B&O line between Cleveland and Chicago will see substantial investment: the line will be double-tracked and will be made capable of accommodating high-speed traffic. Connections will be built to facilitate movement of trains across systems so that the most efficient routings can be used by the integrated system. Intermodal yards and automotive facilities will be upgraded and constructed to provide efficient support for the specialized train service that CSX will implement for these commodities.

The proposed joint acquisition of Conrail has a unique aspect that makes it different from previous rail mergers or consolidations: Several commercially important areas (i.e., North Jersey, South Jersey/Philadelphia, and Detroit) will be operated as shared assets areas with *both* CSX and NS serving customers and/or facilities in those areas where previously Conrail was the sole rail carrier. Similarly, routes in the Monongahela coal region and at the Ashtabula Harbor facilities on Lake Erie will be joint-use areas. Since these areas will be accessible by both CSX and NS, customers located in these areas will now have single-line service to any point on the CSX or NS networks (which extend throughout the Southeast and to western gateways such as Memphis, St. Louis, and Chicago). Traffic moving in and out of shared assets and joint-use areas will be priced independently by the railroad originating (or terminating) the traffic.

²⁹ In fact, some of these investments will be made before the integration so that traffic can flow smoothly on the first day of the combination.

The structural organization of shared assets and joint-use areas takes one of three forms: shared assets areas, areas that are allocated to NS and to which CSX will also be able to offer service, and "2-1" locations where the railroad which is not operating the Conrail line will serve customers via trackage or haulage rights. The North Jersey, South Jersey/Philadelphia, and Detroit shared assets areas will be operated by Conrail, which will be jointly owned by CSX and NS. Within the boundaries of the shared assets areas, some facilities will be operated by the jointly owned Conrail, and others will be operated directly by CSX or NS, with Conrail providing local switching, assembling and breaking up trains, and performing routine maintenance. Also, in such areas where Conrail is providing these services, CSX and NS will be able to operate their own trains as if in their own territories. In addition, CSX and NS will retain independent rate-making authority and be able to negotiate rates, service terms and conditions, and billing arrangements directly with customers.

Costs of operating and maintaining these areas will be apportioned to NS and CSX. Costs will be split among an interest rental component, an ongoing operations component, and a component for investment in additional capital. The interest rental will be shared in proportion with the contribution percentage (i.e., 42% for CSX, 58% for NS). The variable costs of operation will be divided in proportion to usage.³⁰ Capital expenditures will be shared 50/50.

³⁰ The companies have also negotiated a complex set of rules related to investment in additional capital equipment or betterment of the network that allows each company, in most cases, to proceed unilaterally with investment decisions, if it so chooses. The agreement also spells out an arbitration process for situations where the companies cannot agree and unilateral action would interfere with operation of the network.

In the Monongahela coal region and the facilities at Ashtabula Harbor, NS will operate the lines and/or facilities, but CSX will have full rights to serve present and future customers. Finally, in locations where, because of the apportionment of Conrail routes to CSX, shippers would be losing service from one of two rail carriers that served before the proposed acquisition ("2-1" points), NS will be given either trackage or haulage rights (at its election). CSX has identified four locations across the portion of the Conrail system allocated to CSX that are "2-1" points: Upper Sandusky, OH; Sidney, OH; Crawfordsville, IN; and Indianapolis, IN (see discussion in Hart V.S.). In locations where volumes are relatively small (as compared, say, with New York), the option of trackage or haulage gives the receiver of the rights flexibility to adjust service based on volumes. Although the organization varies across different locations, these structures give *both* CSX and NS realistic opportunities to serve both shippers and receivers in dual-served areas.

After the proposed division of Conrail, the resulting route configuration will provide two railroads that offer single-line service between New York and Chicago, New York and St. Louis, and the New York area and the Southeast. Figure 3 above summarizes the traffic moving by truck and by rail in these heavily utilized lanes. In addition to trucks, with the integration of the components of Conrail into the CSX and NS systems, shippers of industrial and other commercial goods will have two single-line rail options, providing increased opportunities for rail versus truck in intensely utilized lanes. NS and CSX will *each* have two rail routes that connect the Midwest and the Northeast: CSX will be able to move traffic over a northern route through Albany and Buffalo and over a southern route using the current CSX-owned B&O line

extending into the New York/New Jersey area with the acquisition of the Conrail lines north from Philadelphia (along the West Trenton line). NS, meanwhile, will move traffic into and out of New York/New Jersey over the old Pennsylvania Railroad route through Harrisburg and Pittsburgh and over the former Erie Lackawanna route via Binghamton and Buffalo. The routings available over the combined CSX-Conrail system will be significantly more efficient than the current routings. For example, for traffic moving between St. Louis and certain East Coast locations, the new routing will be up to 250 miles shorter and up to 24 hours faster (CSX Operating Plan and Jenkins V.S.). Finally, for traffic traveling up or down the East Coast from the New York area to the Southeast in lanes that parallel interstate highways I-75, I-85, or I-95, shippers will now have a choice between two carriers offering single-line service. Single-line service will provide improved consistency and reliability and will reduce loss and damage associated with multiple handling (see CSX Operating Plan, Gaskins V.S., Hawk V.S., Jenkins V.S., and Sharp V.S.).

The new CSX network will offer a broader market reach for shippers in the East, Southeast, and Midwest, linking these regions by single-line service from north to south and east to midwest. The expanded CSX network will reach every major origin and destination area east of the Mississippi, linking major southeast producers with consumers in the Northeast and Midwest through single-line service. Additionally, CSX will provide direct service to each of the major west-of-the-Mississippi railroads at major gateways for transcontinental traffic, bypassing, when possible, congested facilities and using increased densities for expanding blocking of cars to improve transit times to western origins and destinations. CSX will serve

major ports from Boston to New Orleans, as well as Montreal, giving shippers the flexibility of choosing the point of export or import while maintaining the convenience of dealing with a single carrier. The expanded scope of the network makes specialization of yards and routes possible. Due to specialization, transit times will improve through expanded high-speed track, quicker handling and reduced dwell time in yards, and improved coordination of traffic.

The new NS network similarly will offer broader market reach for shippers in the East, Southeast, and Midwest. NS will link major East Coast ports to transcontinental gateways and to the industrial heartland of the Midwest. NS will also provide expanded single-line service between the Southeast and the Northeast. Additionally, through NS's agreement with the Canadian Pacific Railway Company ("CP"), NS will obtain haulage rights over the Delaware and Hudson Railway ("D&H") to Albany, providing NS with an improved connection to New England and Canada through interline service with Guilford Transportation.³¹ The NS network will be nearly equal in size and scope to the CSX network, offering many shippers the choice of two railroads to serve many origins or destinations in the eastern U.S.

In short, the proposed acquisition will essentially preserve routes currently served by Conrail, but will do so by putting two carriers into the East Coast-Midwest and East Coast-Southeast corridors. The expanded networks of the two carriers can be expected to strengthen the East Coast rail network and enhance the connection of major industrial centers in the interior

³¹ CP will gain haulage rights over a Conrail line that will be operated by NS between Detroit and Chicago, via Kalamazoo, creating a shorter route to the U.S. for customers located in Quebec and Ontario, as well as overhead trackage rights on NS between Harrisburg and Reading, PA, connecting with CP's existing trackage rights at Reading.

of the U.S. to global gateways along the East Coast. I now turn to an assessment of the magnitude of these effects and their implications for the public's interest in a healthy and efficient rail system.

IV. PUBLIC INTEREST ASSESSMENT OF THE ECONOMIC EFFECTS OF THE CSX AND NS ACQUISITIONS OF CONRAIL

IV.A Dimensions of the Public's Interest

As noted above, one of the factors that played a role in the Government's original creation of Conrail was the perception that, in forming Conrail out of seven otherwise-bankrupt northeast railroads, the financial viability of Conrail would be enhanced by *protecting* it from competition from other railroads. From the vantage point of today, it seems that an alternative strategy might have been to integrate the components of the original Conrail into other, competing railroads' systems, thereby enhancing the efficiency and productivity of those carriers' respective networks and ensuring the financial well-being of the Conrail lines. This hindsight, however, is arguably too sanguine about the ability of the "recipient" railroads to operate effective networks in the environment of regulation that existed in the mid-1970s. It could well have been the case that restrictions on matters ranging from the negotiation of contract rates to double-stacking of intermodal units would have made financially sound integration of the components of Conrail into a Chessie or an N&W problematic at best.

Notwithstanding past impediments, it is clear today that railroads such as CSX and NS have learned to structure and operate railroads as true networks. With Conrail facing ever-rising encroachment from trucks, diversion of international traffic to alternative ports, and shipper

frustration with service levels and quality limited by Conrail's geographic scope, the case is compelling that the better way to ensure and improve the attractiveness of Conrail's service in the marketplace is not to protect it from rail-to-rail competition, but rather to integrate its components into the networks of two competing railroads such as CSX and NS. Rational network integration in this way promises to maximize the value that can be derived from employment of Conrail's routes and assets.

The public's interest is consistent with this outcome. The public's interest lies in improving the contribution of Conrail's assets and routes to the economic output of the country. The proposed CSX/NS transaction promotes this result in three primary ways. First, it will enable CSX and NS to utilize their respective components of Conrail's assets and routes to improve the level and quality of service provided by the CSX and NS rail networks in the eastern United States. Second, the integration of Conrail's assets and routes into CSX and NS will promote "rationalization" of the eastern railroad network by creating CSX and NS systems that take advantage of economies of network density and scope. The result will be both lower costs of providing the service currently available from the separated CSX/Conrail systems and from the separated NS/Conrail systems, and cost savings for the national economy that arise from the ability of the new systems to attract traffic away from more expensive highway-based transportation. Third, the proposed transaction will bring dual rail options into Conrail solely served areas in the Northeast by integrating components of the system into CSX and NS at locales where Conrail has been insulated from substantial rail competition. Below, I examine each of these dimensions of the public's interest.

IV.B Service Improvements for Existing and New Customers

The predominance of truck transportation, Conrail's early history of financial and service difficulties, and the statements of shippers with stakes in the outcome of the present proceeding all make it clear that the structure of the Conrail network has made it difficult, at best, to utilize that system to provide the feasible quality and range of services that the public desires. A key to deriving more value out of Conrail's system, and the eastern railroad system in general, lies in improving the services provided to the public. The evidence that the proposed integration of the components of Conrail into the CSX and NS networks would give those networks the capacity to improve dramatically service to the shipping public is overwhelming. These service improvements stand out as the centerpiece of the transaction.

IV.B.1 Benefits to Shippers from Improved Transportation Service

To the extent that the integration of the components of Conrail into the CSX and NS networks results in improvements in the quality of transportation services provided to the public, and those improvements come at no additional resource cost or at lower resource cost than the *status quo*, such improvements are unambiguously net benefits to the nation's economy. In fact, the capacity of enhanced networks to produce more and better service and save costs is precisely what it means to take advantage of as-yet untapped economies in the eastern railroad system.

Service improvements that can be achieved under the proposed transaction will accrue to both existing shippers and shippers attracted to the CSX/Conrail and NS/Conrail systems from other modes and other railroads as a result of the new systems' improvements. As compared to,

say, operating cost savings (see below), putting a dollar figure on the net additional value to the public (i.e., net additions to GDP) of higher-quality transportation service is problematic. This net value consists of "consumer surplus"—the excess of shippers' maximum willingness to pay for the improvements in service and what they actually pay in the marketplace. Unlike directly observable operating costs, the maximum value shippers place on higher-quality service is not directly registered in the marketplace or an accountant's books. Nevertheless, these benefits are quite tangible to shippers. They are the attributes that can make or break a shipper's ability to compete in its markets and a railroad's ability to attract and hold customers.

Figure 4 shows the range of service improvements that the evidence indicates will emanate from the proposed CSX/NS transaction. These service attributes are highly valued by shippers and include: greater frequency of service; faster transit times through more efficient routings, avoidance of congested facilities, and elimination of interline junctions; logistical and transaction cost savings from working with a single carrier; reduced loss or damage from reduced handling of cars; improved levels of car usage (including shipper-owned and leased cars); and access to additional markets. Depending on the shipper, these kinds of service attributes may translate into lower levels of inventories, shorter inventory holding times, greater consistency of delivery, better equipment utilization, reduced management time devoted to logistical activities, and so on (see Gaskins V.S.). Indeed, what the shipper sees as higher quality translates into fewer resources used by shippers, and hence the economy, to manage the physical flows of production and consumption.

Figure 4

RAIL SYSTEM IMPROVEMENTS FROM CSX/CONRAIL INTEGRATION

NEW SINGLE-LINE SERVICE

IMPROVED CONSISTENCY AND RELIABILITY
SHORTER TRANSIT TIME AND REDUCED DELAY
LOWER TRANSACTION COSTS
REDUCED DAMAGE AND LOSS

IMPROVED/INTEGRATED ROUTE SYSTEM

INCREASED FREQUENCIES
REDUCED DISTANCE AND CIRCUITY
EXTENDED MARKET ACCESS
EXPANDED INTERMODAL LANES

ENHANCED FLEET UTILIZATION

REDUCED EMPTY BACKHAULS AND DWELLS
OPPORTUNITIES FOR "TRIANGULATION"
ALLEVIATION OF CAR SHORTAGES

SPECIALIZATION OF YARDS, ROUTES, AND CONNECTIONS

EXPANDED HIGH SPEED TRACKS
DECREASED CONGESTION
EXPANDED BLOCKING FOR INTERCHANGE
REDUCED HANDLING AND CLASSIFICATION
QUICKER INTERCHANGE AND CLASSIFICATION
COORDINATION BY TRAFFIC "WAVES"

INCREASED RAIL OPTIONS

N. JERSEY SHARED ASSETS AREA
MGA COAL
DETROIT SHARED ASSETS AREA
S. JERSEY/PHILADELPHIA SHARED ASSETS AREA
ASHTABULA COAL DOCK

IMPROVED CUSTOMER SERVICE

UPGRADED COMMUNICATION AND INFORMATION SYSTEMS
ENHANCED SAFETY

New single-line service: One of the primary benefits to shippers arising from the transaction will be the substantial expansion of the number of points receiving new single-line service on CSX. Shippers in the Northeast will now be linked by single-line service with locations in the Southeast and Midwest, and vice versa. Single-line service provides reduced transit times and increased consistency and reliability of delivery (Hawk V.S., Gaskins V.S., and Jenkins V.S.). Numerous shippers observe that "single-line service is faster [and] more reliable,"³² resulting in increased consistency of deliveries and an improved competitive position of rail versus trucks. The importance of speed of delivery is paramount to certain businesses' capacities to compete in their markets. As a seller of cabinets notes with respect to the absence of single-line service under the current structure of Conrail:

What happens all too often is that the product we are waiting on gets routed and re-routed and doesn't arrive during business hours.³³

For certain products, shippers simply cannot afford delays. Because of contractual obligations or the perishability or fragility of freight, their shipments cannot withstand multiple handlings or sitting in a yard or on a siding.³⁴

The provision of single-line service will eliminate the delay associated with interchanges and will make rail a much more attractive alternative for such shippers. Shippers also note that dealing with one railroad reduces claims handling, reduces transaction costs, improves railroad

³² Shipper Statement of Cahokia Marine Service; see also Statements of Reynolds Metal Company, GS Roofing Products Company, Florida Silica Sand Company, Inc., and Universal Applicators, Inc.

³³ Statement of Cullman Cabinet and Supply Company.

³⁴ Statements of Ajax Turner Co., Dodd Distributing Co., Farm Fresh, Inc., and Floyd Wilcox and Sons, Inc.

accountability, decreases inventory through better use of just-in-time inventory management, and allows more competitive business by expanding network coverage.³⁵

Overall, increased single-line service provides a large change in the service options available to shippers, relative to interline service.³⁶ In the East, trucks are highly competitive with rail (Jenkins V.S., Gaskins V.S., Hawk V.S., and Anderson V.S.). In part, this reflects the fact that increased transactions costs from dealing with two railroad carriers and increased delays from imperfect coordination or extra handling can make rail transportation an unacceptable alternative. Especially for interline movements with two relatively short hauls where traffic moves beyond the boundaries of the current Conrail system, CSX and Conrail have had little success attracting traffic even though the distance was long enough for rail to be competitive (Anderson V.S. and Jenkins V.S.).

An important illustration of the improved ability of rail to compete with trucks where multiple, short, interlined rail hauls have been competitively weak occurs between the Memphis gateway and the Northeast. There is currently no direct intermodal service between Memphis and the Northeast/New England, and interline service has not been attractive because the move from the Northeast is made up of two relatively short hauls. After the proposed joint acquisition, CSX will offer single-line service and expects to attract significant intermodal traffic between

³⁵ See Shipper Statements of Duferco Limited, Griffin Pipe Products Company, Resource Materials Corporation, Magotteaux, Inc., Ellwood City Forge, GalvTech, Claxton Poultry Farms, Jerry G. Williams & Sons, Inc., Pitts Pulpwood Company, Harrison Poultry, Inc., General Shale Products Corporation; see also Gaskins V.S.

³⁶ As a result of the configuration of the respective CSX/Conrail and NS/Conrail networks, a limited number of locales would go from single-line to interline service for non-local movements. Such instances, however, are far outweighed by the cases in which service would go from interline to single-line.

Memphis and the Northeast: over \$56 million in new revenue, with 114,000 truckloads diverted from the highways (Bryan V.S.). Shippers recognize that single-line service is an important factor in delivering faster and more consistent rail service and is a component that will drive their increased utilization of rail (see further below).

Integrated route structures: Several characteristics of the expanded network will improve scheduling and coordination and thus yield benefits that flow from the improved integration of route structures. Under improved integration, the post-transaction combination of CSX and Conrail will lead to higher densities, allowing more frequent service along key corridors. Currently, shippers may choose alternative transportation modes such as trucks, even in lanes that currently operate with single-line service, because of delays associated with infrequent and inefficient single-line service that produces multiple classifications and long dwell times in yards.

Additionally, the combination of the CSX and Conrail route structures will provide routings that reduce significantly the circuitry of rail routes. This will shorten the distance traveled over the combined network and make rail a more attractive alternative vis-à-vis trucks.³⁷ For example, the integration of Conrail and CSX lines will provide a route to St. Louis from a number of East Coast points that is nearly 250 miles shorter than the current CSX route through Cincinnati. Similarly, more efficient routings between the Midwest (Detroit and Cleveland) and Nashville will enable traffic to travel over a route that combines CSX and Conrail lines for a total transit time that is up to 12 hours faster than at present (Orrison V.S.). In short, greater network

³⁷ Shipper Statements of Imeson Distribution Center and Hawkins Chemical, Inc.

coverage, both in terms of nodes served and traffic volumes, will provide opportunities to furnish shorter, faster, and more frequent service alternatives to new and existing customers.

Related benefits to shippers of the expanded and integrated CSX/Conrail route system arise from access to new market opportunities. Shippers recognize the value to their own businesses of having rail service to most major cities in the East.³⁸ For example, by providing access to new customers, single-line service between the Southeast, on the one hand, and East and Midwest, on the other, will benefit shippers of paper products, chemicals, and aggregates, and will contribute to the vigorous growth of intermodal business.³⁹ Illinois and Indiana grain will see increased market opportunity though route extensions to feedlots in the Southeast.⁴⁰

In addition to providing single-line rail service to new customers, the integrated network will increase the efficiency of the nation's transportation infrastructure by avoiding the drayage of intermodal traffic: Significant volumes of traffic, for example, currently travel by rail to Philadelphia and are drayed to the New York/New Jersey and New England areas. Drayage is also substantial from Chicago to Columbus and Cleveland, and from Cincinnati to Detroit. This drayage increases handling, delays, and transit times, and uses expensive trucking services over some of the nation's most congested highways where the combined CSX/Conrail will be able to substitute (Anderson V.S.).

³⁸ See, e.g., Shipper Statements of Lockhart Chemical, Laclede Steel Company, Pitts Pulpwood Company, and Venture Commodities.

³⁹ See, e.g., Shipper Statements of Interstate Paper Corporation, Kimberly-Clark Corporation, and Resource Materials, Inc.

⁴⁰ See, e.g., Shipper Statements of Braswell Milling Company and Bryce-Milford Grain Company.

Enhanced fleet utilization: In addition to benefits that flow from single-line service and expanded route structures, shippers will benefit from improved car utilization and availability. Real synergies in car use exist because traffic patterns over the broader network will enable a reduction in the number of trips made by empty cars. CSX cars traveling into the Conrail network often travel back to their origins empty, often passing empty Conrail cars coming from the other direction en route (Orrison V.S. and Jenkins V.S.).

With the integration of Conrail's routes into the eastern rail networks, rail systems will match more closely the nation's interstate highway system and the pattern of traffic into and out of the eastern U.S. At present, Conrail's system is not geographically balanced. In particular, more traffic moves from west to east than in the other direction (Rosen V.S. and Jenkins V.S.). With the integration of eastern networks, the reductions in transactions costs and the other impediments to rationalizing traffic flow across and through Conrail's boundaries can be expected to improve the ability of rail traffic to flow in much the same pattern that it does on the highway system. Specifically, rail cars will more readily move from the Northeast to Southeast, reload in the Southeast, move deliveries to the Midwest, and finally reload in the Midwest and return to the Northeast.⁴¹ This ability to "triangulate" (or "quadrangulate," in some cases) will improve the utilization of both system and privately owned equipment.⁴² With fewer cars running (or standing) empty, a given car fleet can obviously handle more traffic. Shippers properly anticipate that their own cars will be better utilized, and that availability of railroad-

⁴¹ Bryan V.S. and Shipper Statement of the Hub Group.

⁴² Shipper Statements of Part IV Associates and Giles Chemical Industries, Inc.

owned equipment will improve under the CSX/NS proposal. This will help alleviate shortages of specialized equipment used to move, for example, coal, grain, scrap metal, and building materials.⁴³

Specialization of yards, routes, and connections: One of the important sources of economies of density and scope on a network that handles multiple types of traffic originating and terminating at many distinct points is the ability to specialize "nodes" and routes to nodes in the system. For a railroad, these nodes include yards, where switching and classification occur, and crossing and branching connections between routes. Specializing the use of nodes by (more or less) dedicating particular nodes to particular types and directional flows of traffic can substantially raise productivity by reducing congestion, permitting the blocking of trains, and allowing the efficient coordination of arrivals and departures. The proposed transaction promises to permit CSX to engage in significant specialization toward these ends.

As discussed in the CSX Operating Plan, specialization will occur across a number of dimensions. This will reduce congestion, decrease classification within CSX's system, and thus improve transit times. Yards will be specialized by geographic flow and type of traffic aggregation (i.e., system, regional, or local). Separate yards will classify east-west traffic and north-south traffic, alleviating, for example, the bottleneck and sources of delay in Cincinnati's Queensgate Yard, which currently handles both north-south *and* east-west traffic. After the acquisition, north-south classification will occur in Avon Yard, near Indianapolis, enabling east-

⁴³ See, e.g., Shipper Statements of Commonwealth Aluminum Corporation, Frankfort Scrap Metal, Colonial Brick Co., Giles Chemical Industries, Inc., and Davis Industries, Inc.

west traffic to be moved in expanded blocks to be classified in regional yards in Selkirk, NY, Cumberland, MD, and Buffalo, NY, and then "block-swapped" in Willard, OH.

Because of the greater traffic densities engendered by the transaction, CSX's Willard Yard facility will be able to be utilized efficiently as a "hub" where "waves" of trains will be coordinated, arriving into and departing out of Willard with rapid turnaround.⁴⁴ Blocks of cars will move either to specific yards in Chicago for local delivery or will move through Chicago to western railroads without the need for further classification. This will allow CSX traffic to avoid congested Chicago yards and will allow trains to pass through intermediate yards and move directly to interchanges or destinations.

Similar reductions in congestion will occur at CSX's terminus at St. Louis, as blocking within the CSX/Conrail system will permit trains to flow through to connections with western carriers within those carriers' systems (e.g., at Kansas City and Houston). In fact, CSX anticipates that the specialization of its yards and routes will permit the development of blocking arrangements with western carriers for east bound traffic blocked into such interior CSX/Conrail points as Buffalo, Albany, and Cumberland (Orrison V.S.). This will enhance service for shippers west of the Mississippi and further reduce congestion at western gateways, to the benefit of shippers in the East and West (Orrison V.S.).

Avoiding classification in congested Chicago and St. Louis yards is expected to reduce transit time by up to two days, and will reduce the uncertainties for shippers that congestion

⁴⁴ The specialization of classification yards by geographic region offers benefits much like those arising out of hub-and-spoke innovations of passenger and package (e.g., Federal Express) air carriers.

creates. Obviously, with Chicago and St. Louis serving as major western gateways, this will significantly improve the speed and reliability of transcontinental service.⁴⁵ Such improvements are attributable to the specialization that the integration of Conrail's components into CSX (and, *per force*, NS) will permit. The expansion of economies of density and the scope of the integration in this way will provide real service improvements from the smoother flow of traffic and reduced transit times.

In addition to allowing the specialization of yards by direction, increased densities and scope will allow the specialization of routes and of facilities by traffic type. The combined volume of CSX plus Conrail plus diverted traffic will allow for more efficient routings that separate intermodal from bulk commodities. The CSX B&O line between Cleveland and Chicago will have high enough densities (50 trains per day, as compared to 25 per day at present) to allow for the separation of intermodal and bulk traffic. CSX will use the B&O line primarily for time-sensitive, high-speed traffic, with less time-sensitive, slower traffic routed via Fort Wayne, IN and Crestline, OH (Orrison V.S. and Anderson V.S.).

CSX has also designed specialized yards and routings for automotive and intermodal traffic. Automotive traffic will be funneled through yards in Cincinnati, Cleveland, and Chicago (the Gibson Yard), reducing handling and thus potential damage (Hawk V.S.). The reduction in congestion that flows from the geographic specialization discussed above will allow the Cincinnati yard to be used primarily for automotive and intermodal traffic. Empty automotive

⁴⁵ See, e.g., Shipper Statements of Bryce-Milford Grain, Patterson Frozen Foods, Celanese Mexicana, and Ross Enterprises.

multi-levels returning from the Northeast will be gathered in Collinwood Yard in Cleveland, enabling improvement of equipment utilization. Westbound finished vehicle traffic will be routed to Gibson Yard in Chicago. Similarly, an intermodal network with specialized facilities and high-speed lines will offer attractive service to/from the Northeast and Midwest and Northeast and Southeast (Orrison V.S.).

Improved customer service: Finally, CSX plans to upgrade customer service and safety across the new network to the level enjoyed by current CSX customers. CSX currently has a computerized customer service process that allows for ordering of cars, preparation of bills, and tracing of shipments. This system provides a single point of contact for all billing and shipping instructions (Orrison V.S. and Sharp V.S.). Extending this system to the Conrail shippers that the expanded CSX will be able to serve will provide shippers with valuable information that improves their ability to manage shipping schedules. It will also reduce logistical costs by consolidating logistical functions into a single point of contact and accountability—a matter of considerable importance to shippers.⁴⁶

CSX's integration of the specified components of the Conrail system into its own will promote safer train service for customers and the broader public. Increased traffic densities will be accompanied by the upgrading of track segments with additional sidings, double track, and improved signals. By reducing interchanges, congestion, and classifications, the increased

⁴⁶ See, e.g., Shipper Statements of Magotteaux, Inc. and Duferco Limited.

single-lining and yard and route specialization attendant to the transaction will also have a positive effect on safety.

Shippers, especially chemical shippers, are very much aware of the value of improved safety.⁴⁷ As discussed above, CSX's rate of accidents is among the lowest in the country, and CSX's safety record can be expected to be expanded to the portions of Conrail system that it will operate (Jenkins V.S.). Both improved customer information services and safety will benefit shippers.

IV.B.2 Response of the Marketplace to the CSX/Conrail Integration

The natural marketplace response to improvements in service of the kind offered by the CSX/Conrail integration is diversion of traffic toward the improved service. This diversion, whether it be from other railroads or from truck or water-borne alternatives, is a registration in the marketplace of public benefits (see Jenkins V.S., Bryan V.S., Rosen V.S., Hawk V.S., and Sharp V.S.). Traffic diverts because the shipping public is better off with the new service offering than with the *status quo*.

The CSX and NS joint acquisition and separate integration of Conrail's system is expected to result in diversions of more than \$345 million in traffic revenue to the expanded CSX. The sources of this figure are summarized in Figure 5 and include diversions from both other railroads and other modes. The magnitude of the projected traffic attracted by the expanded CSX is attributable to the importance to shippers of the service improvements

⁴⁷ See, e.g., Shipper Statements of Midland Resources Inc. and Boliden Intertrade, Inc.

Figure 5

**PROJECTED MARKETPLACE RESPONSE TO
IMPROVED TRANSPORTATION SERVICE FROM
CSX/CONRAIL INTEGRATION**

(\$million/year)

<u>Traffic</u>	<u>Revenue Gain</u>
GENERAL MERCHANDISE	\$121.3
INTERMODAL	\$158.1
COAL, COKE, IRON ORE	\$52.5
AUTOMOTIVE	\$15.4
	<hr/>
	\$347.3

Sources: Jenkins V.S., Rosen V.S., Bryan V.S., Sharp V.S., and Hawk V.S.

enumerated above. The projected diversions derive from detailed studies that project new traffic for CSX using techniques that examine the choice among modes or carriers based on the service characteristics of CSX/Conrail versus the alternatives.

Thus, for example, the CSX marketing personnel that examined carload traffic that might be attracted from truck or barge based their analysis on such factors as new single-line service, more frequent service, faster transit times, and improved equipment availability (Jenkins V.S.). Similarly, the study of new intermodal traffic attracted from trucks has considered such factors as comparative trip time and distance, cost, and frequency of rail service (Bryan V.S.). The examination of general merchandise traffic attracted from other railroads (both new business and extended hauls) has been driven by improved routings and the availability of single-line service (Rosen V.S.). CSX marketing personnel, assisted by ALK Associates, also assessed the likelihood that, after the integration of Conrail routes, CSX's extended hauls would enable them to attract traffic from trucks as a result of improved transit times, improved car supply, reductions in interchanges, and/or the availability of improved routings achieved through specialization (Hawk V.S. and Sharp V.S.).

In short, the service improvements that generate traffic diversions are precisely the type of benefits that flow from an efficient integrated rail network, and that are demonstrably attributable to the transaction at hand. In light of the impediments to quality enhancement that stand-alone Conrail has faced and the evident opportunities for the kinds of substantial service improvements described here, the projected traffic diversions summarized in Figure 5 are not

surprising. Moreover, it should be kept in mind that the service improvements that attract new customers to the expanded CSX system will also be enjoyed by current customers, who also care about transit times, reliability, customer service, safety, expanded market access, and the like.

The evidence on traffic diversions confirms that the proposed transaction promises to make major contributions to the quality of the nation's transportation system. These contributions will be spread across the array of traffic that utilizes CSX/Conrail. Here, I consider several of the most important types of affected traffic.

General merchandise: General merchandise customers will receive service from the expanded CSX network and new market opportunities, benefiting both current CSX customers and Conrail customers on lines that CSX will operate. At a minimum, every CSX shipper will have seamless service to the ports of New York and New Jersey and to heavy consuming areas in the New York area. Additionally, Conrail shippers will have single-line service to current CSX-served areas. Thus, for example, Conrail grain shippers in Illinois and Indiana will have expanded marketing opportunities to pork and poultry lots located in the Southeast. Similarly, paper producers in the Southeast will have access to new markets for their paper products as well as new sources of scrap paper supply.⁴⁸ Overall, CSX estimates that improved service for general merchandise traffic will yield over \$120 million in revenue from new traffic, with about \$42 million in new traffic attracted from truck or barge and \$79 million from new or extended hauls attracted from other railroads (Jenkins V.S. and Rosen V.S.).

⁴⁸ Shipper Statement of Pitts Pulpwood Company.

Intermodal: For intermodal shippers, CSX's new route structure, coupled with more efficient handling of cars inherent in the larger network that more closely follows the pattern of traffic flows in the East, will increase rail's attractiveness vis-à-vis trucks. CSX will offer single-line service along the I-95 (Northeast-Florida), the I-85 (Northeast-Atlanta/New Orleans), the I-75 (Midwest-Southeast/Florida), and Memphis (Midwest-Northeast) lanes. Increased densities will also provide improvement in offerings to points that are already served by single-line service by increasing the frequency of trains and allowing the building of larger blocks of cars to the same location. For example, use of Chicago lines and facilities will be optimized because of increased densities, allowing for an increase in "steel-wheel" interchanges with western carriers in Chicago.⁴⁹ Expanded network reach will benefit intermodal shippers as well. Many customers will find that intermodal service is a more viable alternative since a single carrier (either CSX and/or NS) will be able to serve most of the East Coast locations to which they wish to ship freight.⁵⁰

The service improvements that the transaction brings will lead to substantial new and extended-haul traffic opportunities for CSX in the intermodal area. It is projected that \$158 million in new business will be attracted from trucks (\$101 million in new single-line lanes and \$57 million attracted because of improved services on existing single-line lanes (Bryan V.S.)). Additionally, traffic that is being drayed by CSX Intermodal will be able to move closer to its final destination on rail (Anderson V.S.).

⁴⁹ Shipper Statement of Hub Group, Inc.

⁵⁰ Shipper Statement of FalconRoc Management Services, Inc.

Coal, coke and iron ore: In the coal area, CSX expects to attract \$52.5 million in new traffic and extended hauls (Sharp V.S.). In addition to increases in single-line service, the proposed joint acquisition will result in an increase in coal supply choices in the eastern U.S., benefiting utilities in both the Southeast and the Northeast who will now have single-line service to more sources of coal (including single-line movement to Conrail-served MGA coal). This will allow coal-using utilities additional flexibility for meeting increasingly stringent Clean Air Act standards and for competing in the increasingly competitive electricity markets that the Federal Energy Regulatory Commission has ushered in with its Order 880 (requiring, especially, open access to transmission lines toward the end of creating broad wholesale power markets). In addition, coal producers will have increased service options to destination and coal export facilities (see Sharp V.S. and Sansom V.S.).

Improved service for coal traffic is important, especially shorter, more efficient routes (e.g., MGA coal to Baltimore export piers) and improved cycling of equipment.⁵¹ For example, the transaction will enable CSX system cars to be cycled from C&O coal fields for delivery in Ashtabula and then moved to B&O or MGA fields. By increasing the portfolio of available coal fields, the length of the empty return will be significantly shorter, reducing operating costs and increasing the carrying capacity of specialized equipment without increasing the size of the fleet (CSX Operating Plan, at Section 3.2.14).

⁵¹ Sharp V.S. and Shipper Statements of Berwind Coal Sales and Emerald International Corporation.

Automotive: Automotive shippers will benefit from an improved route structure with more direct service, fewer handlings, and better utilization of equipment. Shippers of finished automobiles value single-line service highly because of the high inventory carrying costs associated with automobiles and the decreased opportunity for damage to the finished product.⁵² The transaction will permit more efficient service to finished vehicle manufacturers in the form of segregation of finished vehicles from general merchandise traffic. This will be accomplished via specialization in the form of dedicated switching facilities, where finished vehicles will be gathered, classified using specialized handling techniques, and grouped into large blocks for delivery directly to destinations without further classification.

These specialized facilities and operations will better meet the needs of auto manufacturers and are expected to attract additional traffic to CSX. Over 3,400 truckloads of finished vehicles are projected to be diverted from highway to rail. On the order of 5,400 current truck drays that automobile manufacturers are willing to undergo in order to reach single-line service will be replaced with extended rail service (Hawk V.S.). Additionally, the trend in recent years has been for automobile manufacturers to work with a few large transportation suppliers that are able to offer economies of density and a broad geographic scope. Because of these service improvements, CSX expects to attract approximately \$15.4 million in new and extended haul traffic from finished vehicles manufacturers (Hawk V.S.).

⁵² See, e.g., Shipper Statements of Nissan North America, Inc. and Mazda Motor of America, Inc.

IV.C Social Cost Savings Attributable to the CSX/Conrail Integration

The service improvements that the CSX/NS proposal would engender reflect the ability of the integration of Conrail's system into CSX and NS, to use that system to produce more value for the shipping public. The evidence (examined below) is strong, in fact, that this additional value can be produced at lower cost than today's service by the unintegrated carriers. To the extent this is true—i.e., to the extent that the same or better output of transportation services can be produced at lower resource cost to the nation—the savings of the economy's resources are a benefit to the public. The benefit arises because cost savings represent resources that can be put to use elsewhere in the economy without reducing the quantity or quality of rail service. Here I assess the data available on cost savings attributable to the integration of CSX and the acquired portions of Conrail.

IV.C.1 Sources and Types of Cost Savings

If it is true that the integration of CSX and the acquired components of Conrail can yield untapped economies of network integration, then such economies ought to appear in at least three categories.

Overhead G&A and support costs: First, economies due to the creation of a larger network ought to show up as savings in overhead-type costs associated with General and Administrative (G&A) and Support functions. Specifically, if economies are present in the larger combined CSX/Conrail network, the combined traffic ought to be serviceable with G&A and Support costs that are lower than the simple sum of the separated systems' G&A and

Support costs. From the perspective of social costs, when this is true, the integration of CSX and the acquired portions of Conrail can eliminate duplicative overhead costs. The resource savings are a benefit to the public.

Operating costs: Second, economies, if any, attributable to the integration of CSX and the acquired portions of Conrail can be expected to show up as reductions in the operating costs for the combined system relative to the operating costs that are incurred by the separate companies to serve the traffic they carry as separate companies. That is, holding total traffic constant, the integrated CSX/Conrail ought to be able to serve that traffic at lower operating cost than the two companies could operating separately. Any resulting resource savings are a benefit to the public.

Rail v. truck costs: Third, CSX witness Gaskins' Verified Statement demonstrates that, for a given traffic movement, rail is generally less costly for the public than trucking. This is the result of four primary factors. First, the net expenses borne by CSX/Conrail to carry incremental divertible traffic are lower than for trucks. Second, truck transportation generates costs of highway degradation that are borne to a large degree by the general taxpaying public, rather than by the trucking firms. As a result, large portions of the costs of highway capacity and upkeep are not part of trucking firms' costs of operation (unlike the case of rails, where track and road bed costs are borne by the railroads). To the extent that CSX/Conrail succeeds in diverting traffic from trucks, the associated reductions in highway degradation are a benefit to the public. Third, the traffic attracted to CSX from the trucks will

yield reductions in highway accidents. Finally, and in a similar vein, generally lower fuel consumption of rail relative to trucks per unit of traffic moved means that CSX/Conrail truck diversions translate into less transportation-related environmental pollution. The costs of such pollution are borne by the general public in the form of degradations to health and aesthetic values. Pollution reduction attributable to CSX/Conrail diversions from trucks is a benefit to the public, albeit one that is not quantified below in monetary terms.

Data are available on the three identified possible sources of cost savings associated with traffic diverted from trucks (see below). In addition to these categories of savings, it may also be the case that savings are generated from diversion of traffic away from other railroads. This would be true to the extent that the combined CSX/Conrail is able to serve such diverted traffic at lower costs than the railroads that would otherwise carry the traffic.⁵³ Systematic data are not available on any such savings, and they are not quantified here. As it turns out, the majority of new traffic for CSX/Conrail that results from diversions comes off of trucks (Jenkins V.S. and Bryan V.S.), and the cost savings from these diversions are substantial (Gaskins V.S.).

Other costs: It should not be overlooked that the integration of CSX and the acquired portions of Conrail carries costs of its own. Bringing the two companies' operations together will entail costs of reorganization, relocation of employees, integration of information

⁵³ If other rail carriers have lower costs than CSX/Conrail, and diversions to the latter are the result of service improvements, such diversions are still indicative of net public benefits. Shippers "voting with their feet" for higher-quality service from CSX/Conrail thereby demonstrate that, even in light of possible service by another carrier, the service improvements of the new combined carrier are worth the cost incurred to produce them.

processing systems, capital improvements to yards and other facilities, and the like. In assessing the public benefits of the proposed CSX/Conrail integration, these costs are real and must be offset against the public benefits of cost savings.

Public v. private costs: In analyzing the financial implications of a transaction such as the CSX/Conrail integration, businesses properly must consider all of the expenses and obligations (e.g., deferred expenditures) of its decisions as "costs." In some instances, these costs to a private party may not be costs to the public—i.e., real resource use that subtracts from the resources available for use elsewhere in the economy.⁵⁴ Thus, for example, CSX will bear costs of continuing Conrail office space leases in Philadelphia upon acquisition of the relevant Conrail assets. Yet, upon completion of system integration, the space will be unneeded and can be expected to be made available for sublet. In that case, the freed-up office space is made available to the rest of the economy and represents a public savings of valuable resources, despite being carried by CSX as a private cost burden.

Going in the other direction, private savings that might accrue from the combined system's ability to exact price reductions through new purchasing practices (e.g., by overcoming problems of above-competitive pricing by suppliers to the railroad) would be seen as private savings, even if the same amount of resources is bought and consumed by the railroad. An accounting of public benefits attributable to the CSX/Conrail integration would not count such private savings as public cost savings.

⁵⁴ Of course, the converse can also hold: Real costs to the public may not show up as private costs. Such is the case with environmental costs that a private business' activities may impose on the general public (see discussion in text above).

IV.C.2 Assessment of Public Cost Savings

With the foregoing sources and types of costs in mind, Figure 6 summarizes the available information on the quantifiable public cost impacts of the CSX/Conrail integration. The values in Figure 6 have been taken from the various sources of assessments of the cost implication of the transaction, including the Verified Statement of Gaskins and the CSX Operating Plan and the Verified Statements of Whitehurst, Klick, and Orrison. Each of the latter sources has served as inputs to CSX's assessment of the financial implications of the transaction.

To the extent possible, and in light of available information, the resulting determinations of the private impact on CSX have been adjusted in Figure 6, as necessary, to arrive at measures of *public* cost savings. In addition, CSX's assessments of the financial picture that it faces under the transaction draw a distinction in some instances between ongoing annual expenses, ongoing annual capital outlays, and one-time expenses and outlays (see, e.g., Whitehurst V.S., CSX Operating Plan, and Klick V.S.). For purposes of aggregation on an apples-to-apples basis in Figure 6, one-time expenses and outlays have been expressed as levelized annual flows.⁵⁵ Annual values are shown on the basis of "normal year" operation and "total one time" costs (in Whitehurst's terminology). Finally, additions to cost attributable to implementing the integration of CSX and the acquired components of Conrail have been netted out of the public cost savings.

⁵⁵ "Levelization" expresses the value of a one-time figure as a stream of level annual payments having the same present value as the one-time figure. In levelizing one-time figures here, I have utilized CSX's cost of capital.

Figure 6

QUANTIFIED PUBLIC COST SAVINGS FROM THE CSX/CONRAIL INTEGRATION

	Annual Public Cost Savings
G&A/SUPPORT COSTS*	\$ 71.9 million
OPERATING COSTS*	\$ 183.5 million
TRUCK TO RAIL DIVERSIONS	
Highway Degradation	\$ 50.0 million
Unit Transportation Costs	\$ 166.0 million
TOTAL	\$ 471.4 million

*One-time costs/savings have been annualized.

Sources: CSX Operating Plan, Klick V.S., Gaskins V.S., Whitehurst, Attachment C; Federal Reserve Bank, *Federal Reserve Economic Data*, (St. Louis: Federal Reserve Bank, June 11, 1997); DRI/McGraw-Hill, *DRI/McGraw-Hill Electronic Database* (DRI/McGraw-Hill, June 11, 1997) CSX Corporation, *1996 Annual Report and Form 10-K*; Ibbotson Associates, *Stocks, Bonds, Bills and Inflation 1997 Yearbook* (Chicago: Ibbotson Associates, 1997); Merrill Lynch, Security Risk-Evaluation Service.

G&A and Support costs: Figure 6 shows that the integration of CSX and the acquired portions of Conrail is projected to generate more than \$70 million per year in G&A and Support cost savings. As suggested above, these savings represent network efficiencies in the form of elimination of duplicative overhead-type costs. The largest portion of the projected savings arises from reductions in administrative labor, as the CSX/Conrail integration saves on management resources. Additional savings also arise from the reduced need for overhead support in areas such as customer service, and from non-labor savings in data centers and the like. As reported in Figure 6, the G&A and Support savings are offset by the need to spend approximately \$9 million (levelized annual) for integrating and upgrading information technologies for the expanded CSX. A relatively small offset also occurs in the case of employee relocation costs.

Operating costs: Figure 6 shows that more than \$180 million per year of net cost savings are projected for the expanded CSX system. As reported in the Verified Statements of Klick and Whitehurst, the biggest portions of these savings are found in transportation operations (crews, locomotives, etc.) and in equipment requirements and utilization (especially car and locomotive fleets). These areas account for cost savings of approximately \$50 million/year and \$75 million/year, respectively. They directly reflect the realization of identifiable economies of network integration that arise from the combined CSX/Conrail system and that have been discussed above in this statement. These include the enhanced utilization of equipment and crews that results from shorter routings, yard and route

specialization, opportunities for "triangulation," fewer classifications and interchanges, and so on.

By way of illustration, CSX estimates that its integration with Conrail will enable it to eliminate more than 375,000 interchanges per year (Klick V.S.). Enhanced fleet utilization is anticipated to eliminate one million empty car-days, resulting in capital savings in the form of reduction in car needs by more than 2,800 cars and 375 autorack flat cars (CSX Operating Plan). This amounts to a one-time outlay equivalent of more than \$130 million, or a \$15 million levelized annual flow. Additional savings in operating costs are projected to arise from increased productivity of system gangs and various mechanical and repair functions, as the integrated system of CSX and Conrail will be able to avoid seasonal swings in utilization on Conrail's winter-affected system in particular (CSX Operating Plan, at Section 12).

The values in Figure 6 for Operating Cost savings reflect an offset for the major expenditures that CSX will have to make on modifications to its lines and facilities to take full advantage of its integration with the acquired components of Conrail. On a levelized annual basis these amount to more than \$55 million in costs that the expanded CSX will have to incur. By far the largest portion of these additional costs is attributable to service route improvements. These are concentrated in the Chicago/Northeast corridor and in service affecting St. Louis, Memphis, and I-95 routes. Significant expenditures also will be needed to upgrade interconnections and construct new connections between Conrail and CSX lines (see CSX Operating Plan, at Section 7). In addition, sizable investments are needed to upgrade yards and terminals that play key roles in CSX's strategy of specialization described above.

Rail v. truck costs: As summarized in Figure 6, the Verified Statement of Gaskins reports that the diversion to CSX/Conrail of traffic otherwise moved by truck will produce social cost savings of more than \$215 million annually. The majority of these savings are attributable to the fact that the traffic attracted to rail service by the integrated system's service improvements can be moved more cheaply by rail than by trucks. The projected savings of \$166 million are based on the difference between the costs of rail movement and the costs of truck movement of the same traffic. These savings encompass a net reduction in fuel usage amounting to over 55 million gallons of fuel annually. These savings are stark testimony to the impediments to efficient operation of the *status quo* unintegrated Conrail network; they arise because the integrated CSX/Conrail system can produce service of considerably higher quality—high enough to attract hundreds of millions of dollars of business away from competitive trucks—at lower cost. In fact, as Gaskins notes, the resulting public cost savings are arguably quite conservative.

The direct transportation cost savings attributable to truck-to-CSX/Conrail diversions are complemented by associated reductions in highway degradation and pollution and improvements in safety. The Environmental Report projects that CSX truck diversions will reduce highway miles by more than 400 million per year. Gaskins estimates the social cost savings in the form of reduced highway degradation costs to be \$50 million annually. The sharp reduction in truck miles is also responsible for a significant projected reduction in net air pollution emissions attendant to the burning of transportation fuels. The annual reduction in emissions is projected to consist of: nitrogen oxides—down 592 tons; carbon monoxide—down

2,925 tons; particulate matter--down 810 tons; lead--down .027 tons; and volatile organic compounds--down 457 tons (Environmental Report). In addition, the diversion of traffic from highway carriage to the expanded CSX system is projected to result in 870 fewer truck accidents, including 225 involving injury and 11 involving fatalities (Environmental Report). These are public benefits that are projected to arise because the integration of CSX with the acquired portions of Conrail will allow the integrated CSX to be able to tap unrealized economies in the northeast rail system and move freight traffic off of the highways in significant volume.

IV.D Expansion of Rail Options

The acquisition of one company's assets in an industry by another company in that industry can raise concerns about reductions in competition. Such concerns should not be taken lightly when examining the implications of such a transaction for the public interest. The case at hand, however, is clearly not a standard "merger." The reasonable assessment of the proposed transaction's implications for competition is, if anything, that the integration of the components of Conrail into CSX and NS will expand the range of geography, shippers, and commodities that will have dual railroad service options. In fact, as detailed above in Section II, public policy in the past has sought to insulate Conrail's system from rail competition. The CSX/NS proposal would close this history out as a theme in U.S. railroad policy.

Solely served points on the Conrail system: The conclusion that the proposed transaction is, if anything, competition-enhancing is seen most directly by examining the implications of the transaction for solely served points on the Conrail system. The number of

locales that would (absent curing steps by CSX and NS) see their rail options go from two to one is overwhelmed by the number of places that would go from sole-served to dual-served under the transaction.

Consider, first, locales where rail service would (absent curing steps) go from two carriers to one after the integration of Conrail's assets into CSX. As noted above, four locales have been identified where the integration of the CSX portion of the Conrail system would result in the elimination of dual rail options. These are Upper Sandusky, OH; Sidney, OH; Crawfordsville, IN; and Indianapolis, IN. In keeping with the clearly signaled precedent of other recent railroad consolidations, each of these situations has been addressed by the CSX/NS proposal so as to maintain two viable rail options for customers. At Upper Sandusky and Sidney, CSX will operate the lines but NS will have trackage or haulage rights (at NS's election) to reach previously dual-served customers. Finally, Crawfordsville and Indianapolis will be dual-served by providing NS with bi-directional trackage rights on CSX's acquired line between Muncie and Lafayette (which connects at both ends to NS in Indiana).

The limited range of locales in which dual rail options might have been pushed to sole-serve by the proposed transaction (but for the proposal's curative conditions) is in very sharp contrast to the expansion of locales that will experience dual rail options where Conrail is currently the sole rail carrier. Figures 7 and 8 provide two telling looks at this consequence of the transaction.

Figure 7 shows the increase in the number of points (as measured by SPLCs in the 1995 Waybill sample) receiving dual rail service in Conrail-served BEAs that currently contain

Figure 7

CONRAIL SOLELY SERVED POINTS RECEIVING DUAL RAIL OPTIONS

BEA	CONRAIL SOLELY SERVED POINTS		FORMER CONRAIL POINTS RECEIVING DUAL OPTIONS		
	Number of points	Number of units	Number of points	Number of units	Percentage of units
NEW YORK	164	547,080	75	448,946	82%
PHILADELPHIA	166	248,538	76	108,881	44%
CLEVELAND	45	126,248	5	60,008	48%
DETROIT	13	28,236	10	27,516	97%
CHICAGO	18	276,750	3	24,000	9%
MORGANTOWN	7	15,967	7	15,967	100%
PITTSBURGH	78	125,630	3	11,317	9%
INDIANAPOLIS	15	17,664	3	9,200	52%
TOLEDO	18	27,704	1	2,696	10%
BUFFALO	24	47,162	1	640	1%
TOTAL	548	1,460,979	184	700,171	49%

Note: "units" represents number of railcars or number of intermodal trailers (as appropriate), measured as Conrail terminations plus interline originations to avoid double-counting.
Source: 1995 STB Waybill sample.

Figure 8

NEW YORK BEA ROUTES REALIZING MULTIPLE RAIL OPTIONS

ALBANY	NY	FARGO	ND	NEW ORLEANS	LA
ALBANY	GA	FAYETTEVILLE	NC	NEW YORK	NY
ALBERTA		FAYETTEVILLE	AR	NORFOLK	VA
AMARILLO	TX	FORT DODGE	IA	OMAHA	NE
ANDERSON	IN	FORT SMITH	AR	ONTARIO	
ASHEVILLE	NC	FORT WAYNE	IN	PHILADELPHIA	PA
ATLANTA	GA	FRESNO	CA	PHOENIX	AZ
AUGUSTA	GA	GRAND FORKS	ND	PITTSBURGH	PA
BALTIMORE	MD	GRAND RAPIDS	MI	QUEBEC	
BATON ROUGE	LA	GREENSBORO	NC	RALEIGH	NC
BEAUMONT	TX	GREENVILLE	SC	RAPID CITY	SD
BINGHAMTON	NY	HOUSTON	TX	RICHMOND	VA
BIRMINGHAM	AL	HUNTINGTON	WV	ROANOKE	VA
BISMARCK	ND	HUNTSVILLE	AL	ROCHESTER	NY
BRITISH COLUMBIA		INDIANAPOLIS	IN	ROCKY MOUNT	NC
BROWNSVILLE	TX	JACKSON	MS	SACRAMENTO	CA
BUFFALO	NY	JACKSONVILLE	FL	SAGINAW	MI
CHAMPAIGN	IL	JOHNSON CITY	TN	SALT LAKE CITY	UT
CHARLESTON	SC	KANSAS CITY	MO	SAN ANTONIO	TX
CHARLESTON	WV	KNOXVILLE	TN	SAN FRANCISCO	CA
CHARLOTTE	NC	LA CROSSE	WI	SASKATCHEWAN	
CHATTANOOGA	TN	LAFAYETTE	IN	SAVANNAH	GA
CHEYENNE	WY	LAFAYETTE	LA	SCRANTON	PA
CHICAGO	IL	LAKE CHARLES	LA	SHREVEPORT	LA
CINCINNATI	OH	LANSING	MI	SIOUX CITY	IA
CLEVELAND	OH	LEXINGTON	KY	SOUTH BEND	IN
COLORADO SPRINGS	CO	LIMA	OH	SPRINGFIELD	IL
COLUMBIA	SC	LINCOLN	NE	ST. LOUIS	MO
COLUMBUS	OH	LOS ANGELES	CA	STOCKTON	CA
COLUMBUS	GA	LOUISVILLE	KY	TEXARKANA	TX
CORPUS CHRISTI	TX	MACON	GA	TOLEDO	OH
DALLAS	TX	MEMPHIS	TN	TOPEKA	KS
DAVENPORT	IA	MIAMI	FL	TULSA	OK
DAYTON	OH	MILWAUKEE	WI	TYLER	TX
DENVER	CO	MINOT	ND	WASHINGTON	DC
DETROIT	MI	MOBILE	AL	WHEELING	WV
EL PASO	TX	MONROE	LA	WICHITA	KS
ERIE	PA	MONTGOMERY	AL	YOUNGSTOWN	OH
EVANSVILLE	IN	MPLS. - ST. PAUL	MN		

Total NY Traffic Realizing Dual Rail Options at the BEA Level	= 693 Thousand Units
Total Conrail New York Traffic	= 732 Thousand Units
Share Realizing Dual Rail Options at the BEA Level	= 95 %

Conrail solely served points. As indicated, the 548 Conrail solely served points in these BEAs account for more than 1.46 million units of service (out of Conrail's total 3.3 million units of service).⁵⁶ The public policy decisions that have structured Conrail over its history to date have, indeed, left it substantially insulated from rail-to-rail contact with competitors at this level of detail. The proposed transaction, however, would dramatically alter this situation. As Figure 7 illustrates, 184 of the 548 points currently solely served at the Conrail end of movements would experience two rail options at this end.⁵⁷

The points at the Conrail end of the eastern rail system that are subject to dual service under the proposed transaction account for 49% of the traffic that is solely served at the Conrail end at present. In some BEAs, this fraction is considerably higher. For example, joint service by CSX and NS in the New York BEA (consisting of New York City and northern New Jersey), the Detroit BEA, and the Morgantown BEA put the share of currently solely served traffic that will receive service from two rail carriers at 80% and higher in each case. Each of these cases reflects the contribution of the proposed shared assets areas to shippers' rail options. Similar effects are seen in the relatively large proportions of traffic subject to introduction of dual-serve options in the southern New Jersey/Philadelphia area of the Philadelphia BEA and in the Indianapolis BEA.

Expanded rail options for the New York BEA: Figure 7 provides perspective on the expansion of rail options at the SPLC level. It is also common to examine rail options at the

⁵⁶ Units are measured here as railcars or intermodal trailers, as applicable.

⁵⁷ Note that it cannot be said that all of the shippers at the 184 affected points would have multiple rail options as a result of the CSX/NS transaction, since some may have only one rail option elsewhere on a route (e.g., at the other end).

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level of the BEA, in recognition of the fact, for example, that traffic that is drayed or long-haul trucked can generally utilize options that are present within a BEA. Accordingly, Figure 8 focuses on the heavily trafficked New York-based BEA-to-BEA routes that Conrail currently serves. The Figure indicates the routes to/from the New York BEA that currently receive sole-service from Conrail and that will realize two rail options (at the BEA level) following the CSX and NS acquisitions of Conrail's system. The indicated routes all have multiple rail options at the BEA level at their non-Conrail end; routes with sole service at the non-Conrail end have not been included in Figure 8.

When examining rail options at the BEA level, it cannot be said that all shippers have service realistically available from all the rail carriers serving a particular BEA, since some may be located at solely served facilities within the BEA and find trucks infeasible for reaching alternative rail-head facilities. Bearing this in mind, Figure 8 makes it clear that the proposed transaction would introduce two rail options at the BEA level across a wide range of New York routes. The indicated New York routes that will see an expansion of rail options at the BEA level account for fully 95% of Conrail's New York traffic (measured as New York BEA originations and terminations).

Figure 9 shows the total Conrail traffic in BEAs that are solely served by Conrail. Comparing the results of Figure 8 to the volumes of traffic in Figure 9 indicates that the introduction of dual rail options on New York routes provides coverage of more than half the traffic that Conrail handles in BEAs where it is currently the sole Class I carrier (and end points at the other ends of routes emanating out of these BEAs are not also solely served).

Figure 9

CONRAIL TRAFFIC IN CONRAIL SOLELY SERVED BEAs*

BEA	Units	Tons	Freight Revenue
New York, NY	693,294	18,890,818	\$854,829,977
Boston, MA	200,852	4,686,952	\$272,574,052
Syracuse, NY	70,284	3,830,283	\$117,122,647
Hartford, CT	66,780	2,632,460	\$115,942,712
Williamsport, PA	35,331	2,992,397	\$59,493,877
Rochester, NY	26,735	2,463,157	\$60,662,697
TOTAL	1,093,276	35,496,067	\$1,480,625,962

*Excludes movements to/from points solely served by other railroads.
Source: 1995 STB Waybill Sample

For further perspective, Figure 10 provides data on the ten largest New York BEA-level routes. These are among the most densely traveled rail routes in the U.S. Comparing Figure 8 (which shows routes into and out of the New York BEA where Conrail was the only rail carrier and where there would be dual rail service under the CSX/NS transaction) to Figure 10 indicates that the introduction of two major rail options in the New York BEA would be felt in Conrail's most important routes (except Tampa, which is solely served). Notably, these routes include Chicago, St. Louis, Houston, and Los Angeles—the major western gateways and beyond.

Expanded rail options at ports: Another key dimension of the availability of dual rail service for shippers arises in the case of the ports that would see an end to Conrail sole-service under the CSX/NS transaction. Figure 11 indicates that, of the nine major ports currently solely served by Conrail, six will have the options of both CSX and NS under the proposed transaction. As measured by the available data (which reflect the value of all of the exports and imports handled by these ports, independent of onshore transport mode), these six ports account for nearly all of the import/export traffic handled by the nine Conrail solely served ports. This reflects—and illustrates again—the importance of the fact that the proposed transaction would bring two major rail options into the very large traffic area of New York/northern New Jersey.

The proposal's provision for dual service at the Ashtabula Harbor coal dock facilities represents a special case of expanded options at a port. These facilities provide opportunities for Appalachian coal to reach Great Lakes customers, but Conrail has effectively been the sole terminating carrier. Under the proposed transaction, NS would operate the line serving the

Figure 10

TEN LARGEST NEW YORK BEA ROUTES

RANK	BEA	REVENUE
1	CHICAGO	\$213,257,296
2	HOUSTON	\$53,871,164
3	DETROIT	\$44,913,640
4	ST. LOUIS	\$39,294,080
5	LOS ANGELES	\$31,292,360
6	TAMPA	\$27,967,090
7	ATLANTA	\$27,741,680
8	BUFFALO	\$25,068,736
9	CLEVELAND	\$22,270,360
10	INDIANAPOLIS	\$21,136,520
		\$506,812,926

Figure 11

INCREASED RAIL OPTIONS AT CONRAIL SOLELY SERVED PORTS (1995)

PORT	VALUE OF ALL IMPORTS AND EXPORTS (thousands)	PRE- TRANSACTION RAIL SERVICE	POST- TRANSACTION RAIL SERVICE	VALUE SHARE OF TOTAL
NEW YORK, NY	\$67,210,761	SOLELY SERVED	DUAL	93.9%
PAULSBORO, NJ	\$1,508,480	SOLELY SERVED	DUAL	2.1%
MARCUS HOOK, PA	\$1,172,742	SOLELY SERVED	DUAL	1.6%
CAMDEN, NJ	\$786,474	SOLELY SERVED	DUAL	1.1%
GLOUCESTER CITY, NJ	\$404,558	SOLELY SERVED	DUAL	0.6%
CLEVELAND, OH	\$367,629	SOLELY SERVED	DUAL	0.5%
OSWEGO, NY	\$55,121	SOLELY SERVED	SOLELY SERVED	0.1%
NEW BEDFORD, MA	\$47,616	SOLELY SERVED	SOLELY SERVED	0.1%
FALL RIVER, MA	\$34,151	SOLELY SERVED	SOLELY SERVED	0.05%

SHARE (by total import/export value) REALIZING
DUAL RAIL OPTIONS: 99.8%

Ashtabula dock, but CSX would acquire trackage rights to complement its other Lake Erie lakefront options on its own line. NS would be allocated Conrail's dock facilities, with CSX receiving use of up to 42% of the associated capacity in exchange for charges covering the unit costs of facilities use. Currently, NS has service rights to the dock facilities, but has not found it feasible to provide substantial service. The CSX/NS proposal can be expected to represent an expansion of rail options for movements to Ashtabula Harbor.

Other ports (i.e., Philadelphia, Baltimore, and Wilmington, DE), currently served by two carriers, will receive the opportunity for single-line service from two carriers with networks spanning the entire eastern U.S. Currently, these ports are served by one carrier (Conrail) with a network that expands out to the north and west and another carrier (CSX) with a network that expands out to the south and west. Post-transaction, shippers at these ports will have two major rail options, both in the direction of the current Conrail network and in the direction of the current CSX network. Effectively, then, many shippers that have depended on a single network will have dual options for reaching the ports of Philadelphia, Baltimore, and Wilmington, DE.

Expanded options for Monongahela coal producers: The CSX/NS proposal for joint use of the former Monongahela Railway (MGA) will provide two rail options for Monongahela area coal mining operations currently solely served by Conrail. These mining operations lie primarily within the Morgantown BEA, with some located in the Pittsburgh region as well. As indicated by Figure 7, all of the Morgantown points that are currently solely served by Conrail will see two railroad options under the CSX/NS proposal, as will MGA points in the Pittsburgh

PEA. As discussed at length in the Verified Statement of Robert L. Sansom, this will expand transportation alternatives for affected mines, expand the range of customers that those mines can reach, and expand the coal source options of a significant number of coal-using utilities and other coal customers.

As discussed by Sansom, these effects of joint use of the Monongahela Railway on area coal mining operations will be complemented by the introduction of dual rail options to Conrail solely served destinations. Approximately one-third of Monongahela coal that currently flows to Conrail-only terminations will have CSX and NS terminations at destinations following the implementation of the CSX/NS proposal.

V. CONCLUSION

Rail service to the northeastern United States has provided the ground for numerous and contentious rounds of policymaking. Although the region is rich in commerce and at least potential rail traffic, many railroads have found it difficult to thrive or even survive in the northeastern area. The present system in the region, Conrail, was born of political considerations, and possesses a route structure reflective of those considerations. The resulting system's structure and ownership, particularly its lack of integration with the other east-of-the-Mississippi rail networks, demonstrably impede the realization of substantial economies of network density and scope. These shortcomings are manifested in untapped opportunities to cut costs and improve the quality of service in some of the most important traffic areas of the

country. Shippers directly bear the burden of these shortcomings, and the national economy as a whole suffers from underperforming eastern rail networks.

The proposal by CSX and NS would address these problems in a manner wholly consistent with the public's interest in efficient transportation networks and a healthy national economy. These two major eastern railroads would acquire Conrail and integrate separate components of its system into their respective systems. This would provide a seamless network of rail lines linking the important areas of New York, New Jersey, Pennsylvania, and New England to the rest of the east-of-the-Mississippi region. The integration of the components of Conrail into CSX and NS would allow the realization of substantial network economies. The quality of rail service would be substantially improved, as the integrated systems would expand single-line service, shorten routes, cut transit times, extend market access for shippers, increase the frequency of service, decrease congestion at key nodes, improve customer service and safety, and enhance the utilization of shippers' equipment.

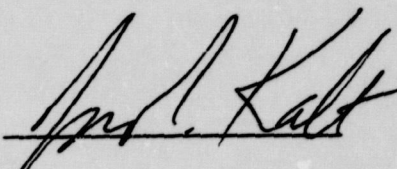
On the cost side, the transaction would result in cost savings in the hundreds of millions of dollars annually. These cost savings in CSX's instance would arise from the specialization of yards and routes, higher utilization and less empty and dwell time for equipment, elimination of duplicative overhead and support costs, better crew utilization, smoother traffic flows with less handling and classification, and synergies affecting maintenance and capital investment. In addition, the improved service would cause shippers to choose to move more of their traffic on rail and less on other modes, particularly trucks. In so doing, the economy would realize cost

savings attendant to meeting transportation needs via rail, which generally has lower costs than trucks per unit of shipment.

Finally, the CSX and NS acquisition and integration of Conrail's system would introduce dual rail options into heavily trafficked regions of the country that currently have Conrail as their sole major rail option. The results will be two higher-quality and lower-cost railroads able to compete with each other and with trucks for shippers' business. The integration of Conrail into two such railroads can only be concluded to be in the public's interest.

VERIFICATION

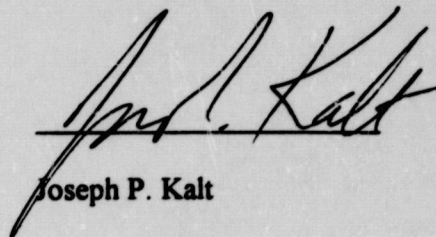
I, Joseph P. Kalt, verify under penalty of perjury that the foregoing is true and correct. Further, I certify that I am qualified and authorized to file this Verified Statement. Executed on June 12, 1997.



Joseph P. Kalt

VERIFICATION

I, Joseph P. Kalt, verify under penalty of perjury that the foregoing is true and correct. Further, I certify that I am qualified and authorize to file this Verified Statement. Executed on June 2 1997.


Joseph P. Kalt

JOSEPH PEGGS KALT

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PROFESSIONAL EXPERIENCE

John F. Kennedy School of Government, Harvard University, Cambridge, MA
Ford Foundation Professor in International Economy, 1992 - present
Professor of Political Economy, 1986 - 1992

Areas of specialization include Industrial Organization, Economics of Antitrust and Regulation, Natural Resource Economics, Public Choice and Political Economy, Microeconomic Theory.

Co-Director, The Harvard Project on American Indian Economic Development, 1987 - present
Academic Dean for Research, 1992 - 1994

Chairman, Environment and Natural Resources Program, Center for Science and International Affairs,
1990 - 1994

Chairman of Degree Programs, 1990 - 1992

Assistant Director for Natural Resources, Energy and Environmental Policy Center, 1985 - 1990

Co-Director, Harvard Study on the Future of Natural Gas Policy (with Frank C. Schuller), Energy and
Environmental Policy Center, John F. Kennedy School of Government, 1984-86

Department of Economics, Harvard University, Cambridge, MA

Associate Professor of Economics, 1983 - 1986

Assistant Professor of Economics, 1980 - 1983

Instructor in Economics, 1978 - 1980

Taught Economics of Antitrust and Regulation, Intermediate Microeconomics, and Principles of Economics.

President's Council of Economic Advisers, Washington DC

Junior Staff Economist, 1974 - 75

Analyzed federal energy, environmental, transportation, and tax policies.

EDUCATION

University of California, Los Angeles

Ph.D. in Economics, 1980

Dissertation: "Federal Control of Petroleum Prices: A Case Study of the Theory of Regulation"

University of California, Los Angeles
M.A. in Economics, 1977
Stanford University
B.A. in Economics, 1973

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Proceedings of the Fourth Annual DOE-NARUC Natural Gas Conference, Orlando, FL, February 1995, Publication forthcoming.

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"Is the Movement Toward a Less-Regulated, More Competitive LDC Sector Inexorable?, (Re)Inventing State/Federal Partnerships: Policies for Optimal Gas Use," U.S. Department of Energy and The National Association of Regulatory Utility Commissioners Annual Conference, Nashville, TN, February 1994.

"Cultural Evolution and Constitutional Public Choice: Institutional Diversity and Economic Performance on American Indian Reservations," Festschrift in Honor of Armen A. Alchian, Western Economic Association, Vancouver, BC, July 1994.

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"The Redesign of Rate Structures and Capacity Auctioning in the Natural Gas Pipeline Industry," Natural Gas Supply Association, Houston, TX, March 1988.

"Property Rights and American Indian Economic Development," Pacific Research Institute Conference, Alexandria, VA, May 1987.

"The Development of Private Property Markets in Wilderness Recreation: An Assessment of the Policy of Self-Determination by American Indians," Political Economy Research Center Conference, Big Sky, MT, December 4-7, 1985.

"Lessons from the U.S. Experience with Energy Price Regulation," International Association of Energy Economists Delegation to the People's Republic of China, Beijing and Shanghai, PRC, June 1985.

"The Impact of Domestic Regulation on the International Competitiveness of American Industry," Harvard/NEC Conference on International Competition, Ft. Lauderdale, FL, March 7-9, 1985.

"The Welfare and Competitive Effects of Natural Gas Pricing," American Economic Association Annual Meetings, December 1984.

"The Ideological Behavior of Legislators," Stanford University Conference on the Political Economy of Public Policy, March 1984.

"Principal-Agent Slack in the Theory of Bureaucratic Behavior," Columbia University Center for Law and Economic Studies, 1984.

"The Political Power of the Underground Coal Industry," FTC Conference on the Strategic Use of Regulation, March 1984.

"Decontrolling Natural Gas Prices: The Intertemporal Implications of Theory," International Association of Energy Economists Annual Meetings, Houston, TX, November 1981.

"The Role of Government and the Marketplace in the Production and Distribution of Energy," Brown University Symposium on Energy and Economics, March 1981.

"A Political Pressure Theory of Oil Pricing," Conference on New Strategies for Managing U.S. Oil Shortages, Yale University, November 1980.

"The Politics of Energy," Eastern Economic Association Annual Meetings, 1977.

WORKSHOPS PRESENTED

University of Indiana; University of Montana; Oglala Lakota College; University of New Mexico; Columbia University Law School; Department of Economics and John F. Kennedy School of Government, Harvard University; MIT; University of Chicago; Duke University; University of Rochester; Yale University; Virginia Polytechnic Institute; U.S. Federal Trade Commission; University of Texas; University of Arizona; Federal Reserve Bank of Dallas; U.S. Department of Justice; Rice University; Washington University; University of Michigan; University of Saskatchewan; Montana State University; UCLA; University of Maryland; National Bureau of Economic Research; University of Southern California

OTHER PROFESSIONAL ACTIVITIES

Chief Mediator *In the Matter of the White Mountain Apache Tribe v. United States Fish and Wildlife Service*, re: endangered species management authority, May-December, 1994

Steering Committee, National Park Service, 75th Anniversary Symposium, 1991-93

Board of Trustees, Foundation for American Communications, 1989 to present

Editorial Board, *Economic Inquiry*, 1988 to present

Advisory Committee, Oak Ridge National Laboratory, Energy Division, 1987 to 1989

Commissioner, President's Aviation Safety Commission, 1987-88

Principal Lecturer in the Program of Economics for Journalists, Foundation for American Communications, teaching economic principles to working journalists in the broadcast and print media, 1979 to present

Lecturer in the Economics Institute for Federal Administrative Law Judges, University of Miami School of Law, 1983 to 1991

Research Fellow, Energy and Environmental Policy Center, John F. Kennedy School of Government, Harvard University, 1981 to 1987

Editorial Board, MIT Press Series on *Regulation of Economic Activity*, 1984 to 1992

Research Advisory Committee, American Enterprise Institute, 1979 to 1985

Editor, *Quarterly Journal of Economics*, 1979 to 1984

Referee for *American Economic Review*, *Bell Journal of Economics*, *Economic Inquiry*, *Journal of Political Economy*, *Review of Economics and Statistics*, *Science Magazine*, *Journal of Policy Analysis and Management*, *Social Choice and Welfare*, *Quarterly Journal of Economics*, MIT Press, North-Holland Press, Harvard University Press, *American Indian Culture and Research Journal*

TEACHING EXPERIENCE

Introduction to Environment and Natural Resource Policy (Graduate, Kennedy School of Government); Seminar in Positive Political Economy (Graduate, Kennedy School of Government); Intermediate Microeconomics (Graduate, Kennedy School of Government); Natural Resources and Public Lands Policy (Graduate, Kennedy School of Government); Economics of Regulation and Antitrust (Graduate); Economics of Regulation (Undergraduate); Introduction to Energy and Environmental Policy (Graduate, Kennedy School of Government); Graduate Seminar in Industrial Organization and Regulation; Intermediate Microeconomics (Undergraduate); Principles of Economics (Undergraduate); Seminar in Energy and Environmental Policy (Graduate, Kennedy School of Government)

HONORS AND AWARDS

Allyn Young Prize for Excellence in the Teaching of the Principles of Economics, Harvard University, 1978-79 and 1979-80

Chancellor's Intern Fellowship in Economics, 9/73 to 7/78, one of two awarded in 1973, University of California, Los Angeles

Smith-Richardson Dissertation Fellowship in Political Economy, Foundation for Research in Economics and Education, 6/77 to 9/77, UCLA

Summer Research Fellowship, UCLA Foundation, 6/76 to 9/76

Dissertation Fellowship, Hoover Institution, Stanford University, 9/77 to 6/78

Four years of undergraduate academic scholarships, 1969-1973; graduated with University Distinction and Departmental Honors, Stanford University

Research funding sources have included: The National Science Foundation; USAID (IRIS Foundation); Pew Charitable Trust; Christian A. Johnson Family Endeavor; The Ford Foundation; The Northwest Area Foundation; the U.S. Department of Energy; the Research Center for Managerial Economics and Public Policy, UCLA Graduate School of Management; the MIT Energy Laboratory; Harvard's Energy and Environmental Policy Center; the Political Economy Research Center; the Center for Economic Policy Research, Stanford University; the Federal Trade Commission; and Resources for the Future

**BEFORE THE
SURFACE TRANSPORTATION BOARD**

FINANCE DOCKET NO. 33388

**CSX CORPORATION AND CSX TRANSPORTATION, INC. AND
NORFOLK SOUTHERN CORPORATION AND
NORFOLK SOUTHERN RAILWAY COMPANY
--CONTROL AND OPERATING LEASES/AGREEMENTS--
CONRAIL INC. AND CONSOLIDATED RAIL CORPORATION**

VERIFIED STATEMENT OF DARIUS W. GASKINS, JR.

**Verified Statement
of
Darius W. Gaskins, Jr.**

I. Introduction

My name is Darius W. Gaskins, Jr. I am currently a partner at Carlisle, Fagan, Gaskins & Wise (CFGW), a transportation-based management consulting firm in Concord, Massachusetts, as well as a partner at High Street Associates, a private investment and management company based in Ipswich, Massachusetts. I have served on the Board of Directors of Burlington Northern, Mid-South, and Leaseway, all transportation companies. I currently serve on the Board of Directors at UNR, Sapient, Northwest Steel and Wire, and Anacomp. I hold a Ph.D. in economics from the University of Michigan, as well as two Masters degrees in engineering from the same institution.

Prior to my current positions, I served as President and Chief Executive Officer of the Burlington Northern Railroad. Before joining the railroad, I served as Chairman of the Interstate Commerce Commission from 1979-1981, a period of dramatic change in the regulation of our nation's transportation system. Furthermore, I have written a number of papers in the economics and transportation fields, including "Managing the Transition to Deregulation," which appeared in *Law and Contemporary Problems* in 1982. A more detailed background of my qualifications is provided in Appendix A of this statement.

The purpose of this statement is to offer my views regarding the competitive implications and public benefits of the proposed transaction involving the CSX and Norfolk Southern acquisition of Conrail and the effective division of its assets (which I will refer to as the "proposed transaction"). As I will show, competition will not decrease as a result of the proposed

transaction. On the contrary, competition will increase in the Eastern United States. I base this contention on three fundamental propositions: (1) motor carriers compete aggressively and effectively with rail, (2) head-to-head rail competition between CSX and NS will expand in the Eastern United States, and (3) rail network integration will improve rail service to shippers.

I will also present the results of analyses conducted on the implications of converting current CSX-Conrail interline lanes to CSX-only single-line lanes.¹ I will present historical data demonstrating that mergers creating single-line lanes improve rail competitiveness in the long run. Furthermore, I will present an estimate of the long-term opportunity to divert traffic from the highway to rail as a result of the proposed transaction.

Finally, I will discuss the public benefits of the proposed transaction and estimate those benefits in terms of reduced transportation costs and highway damage. As I will show, the public benefits are substantial.

II. The Competitive Environment

The proposed transaction will create more -- rather than less -- competition between and among transportation providers in the Eastern United States. Indeed, this is the most pro-competitive rail acquisition that I have yet seen proposed to the ICC/STB. There are three

¹ For the purposes of this statement, a lane is defined as an origin-destination BEA pair. Also, an interline shipment requires two or more rail carriers to handle a shipment from origin to destination; a single-line shipment can be handled from origin to destination by a single rail carrier.

independent reasons for this, each of which, alone, would adequately support my position. First, motor carriers offer an intensely competitive transportation alternative for shippers that is both nationally pervasive and particularly strong in the East. If the transaction is approved by the STB, it will intensify competition between trucks and the broadened rail networks that will be created. Second, by providing two rail service options for shippers who today are served by only one rail carrier, the transaction will create an environment of vigorous rail competition between CSX and NS in certain important areas, notably the New York/Northern New Jersey area. Third, the benefits of rail network integration will improve rail competitiveness in the marketplace. Together, these three factors will create a climate of robust competition among transportation providers in the East -- to the benefit of the shipping community, in particular, and the general public at large.

A. Motor Carrier Competition

Motor carrier competition is ubiquitous in U.S. transportation, particularly in the East and especially where only interline rail service is available. With the full manifestation of motor carrier deregulation since 1980, motor carriers enjoy major inherent advantages over rail. These competitive advantages come from three key characteristics of the motor carrier industry: its structure, its product, and its pervasiveness.

First, since motor carrier deregulation in 1980, the industry has witnessed a massive inflow of trucking providers and the creation of nationwide motor carrier systems. The relative absence of regulatory barriers to entry have created a highly competitive industry. While capital investment in tractors and trailers is not trivial, motor carriers can expand their capacity and enter

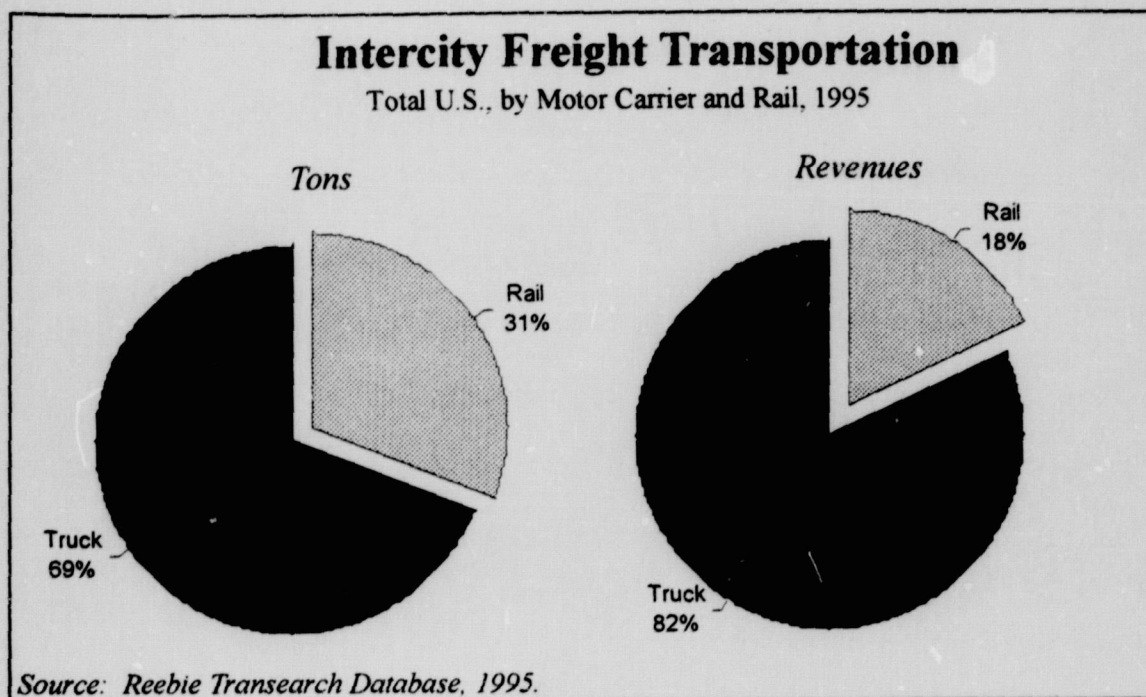
and exit new markets far more readily than railroads. While a motor carrier can easily re-deploy its trucks to different lanes, a railroad must bear the huge sunk costs of its rights of way.

Second, motor carriers hold an inherent scheduling and service advantage over rail. The truckload motor carrier "sells" a tractor, a trailer, and a driver -- all dedicated to the specific shipper's individual shipment. Motor carriers provide shippers with flexible, seamless, dock-to-dock transportation options that rail carriers have difficulty matching. A motor carrier can provide a scheduled morning pick-up and supplement that service with an unscheduled afternoon pick-up on a customer's sudden request. The economies of rail seldom permit multiple pick-ups per day, and virtually never allow a special call for a few loads.

Shippers' growing use of just-in-time inventory management techniques in recent years has played directly to the motor carriers' service advantage. The marketplace is increasingly demanding nearly flawless service and strict, time-definite pick-up and delivery requirements. Moreover, recent efforts by many motor carrier companies to deliver value-added logistics services has also enhanced their attractiveness as service providers.

Third, the motor carrier industry is pervasive in its penetration of the U.S. freight transportation market, especially in the East -- and, to no one's surprise, empirical studies have clearly verified this finding. As Figure 1 shows, in 1995 motor carriers handled 69 percent of the total intercity freight tons in the United States and captured 82 percent of the total intercity freight revenues.

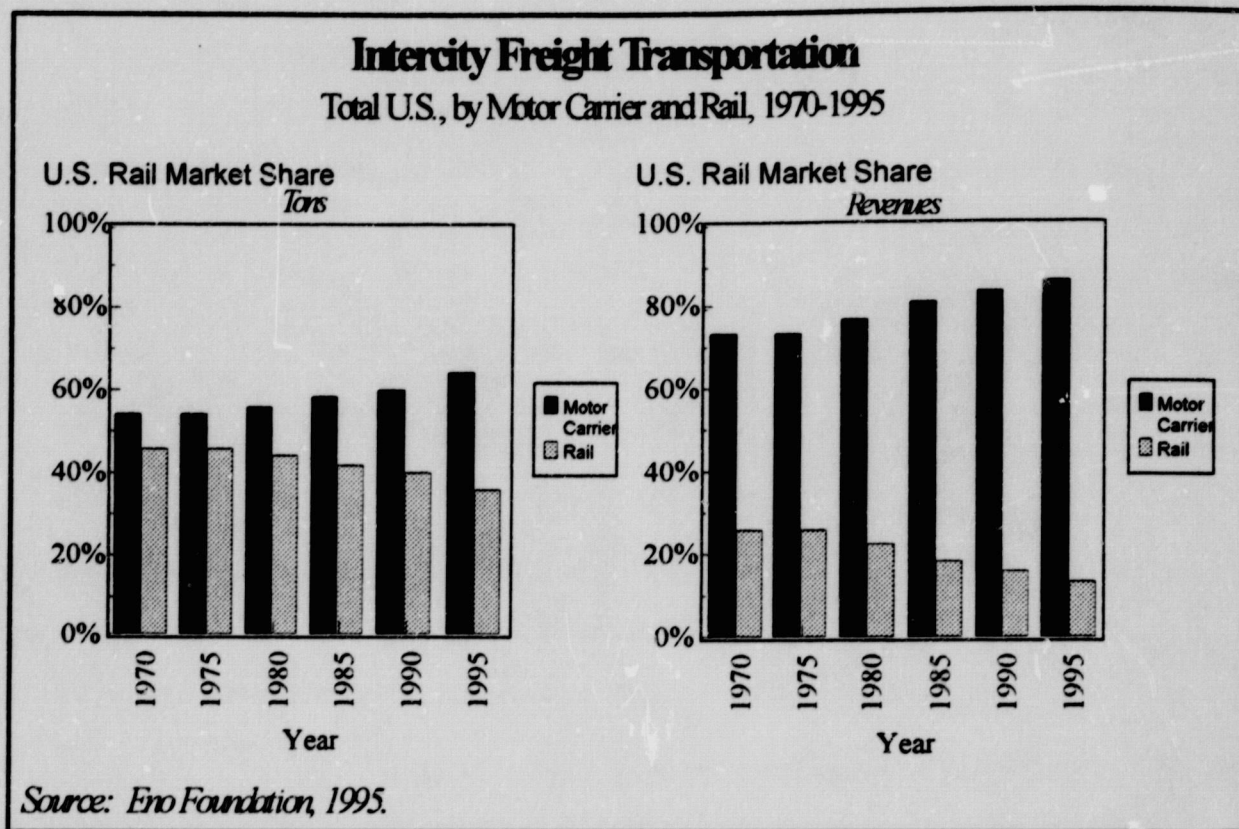
Figure 1ⁱⁱ:



Moreover, since 1970 motor carriers have steadily earned an increasing share of the freight transportation market, particularly after deregulation in 1980 (see Figure 2).

ⁱⁱ Rail percentage includes rail carload and intermodal. Truck percentage includes truckload, LTL and private truckload shipments; water, air, and pipeline shipments were excluded in these graphs and in the diversion analysis so that highway diversions could be isolated from pipeline and water diversions. See Appendix B for details on Reebie Transearch Database.

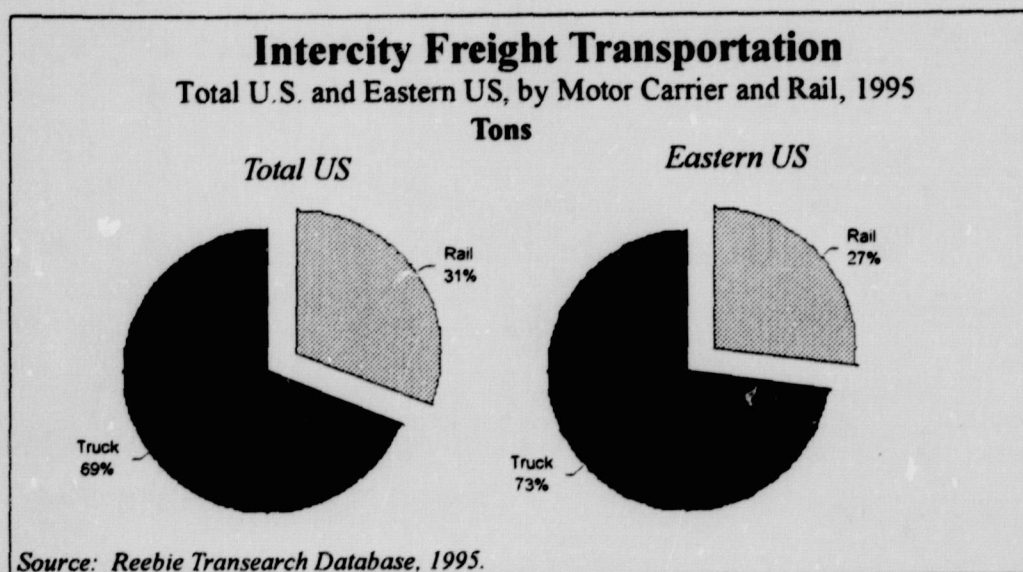
Figure 2ⁱⁱⁱ:



ⁱⁱⁱ Includes all rail and motor carrier movements; excludes water, air and pipeline shipments.

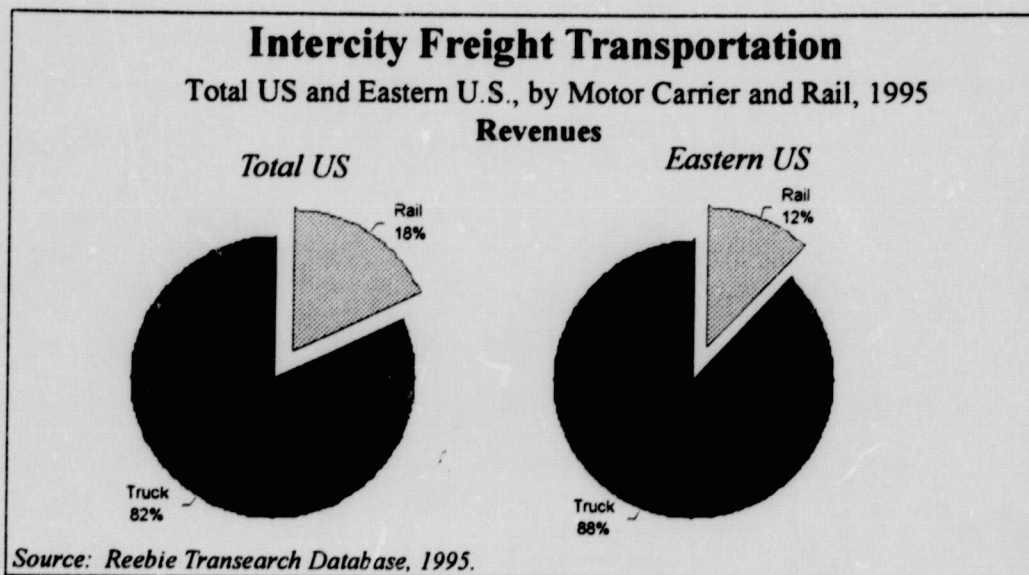
Focusing on the Eastern United States alone, we found that motor carriers were highly competitive. In fact, motor carriers were more competitive in the East than in the nation as a whole (see Figures 3a and 3b^{iv}).

Figure 3a:



^{iv} Rail percentage includes rail carload and intermodal. Truck percentage includes truckload, LTL and private truckload shipments; water, air, and pipeline shipments were excluded. See Appendix B for details on Reebie Transearch Database.

Figure 3b:



These results are not surprising because railroads tend to be less competitive with trucking in shorter haul lanes. The shorter average length-of-haul of eastern traffic (284 miles versus 432 miles nationwide)^v and the fewer single-line rail options in the Eastern United States plays directly to the strength of motor carriers in providing highly responsive and cost-effective short-haul service.^{vi}

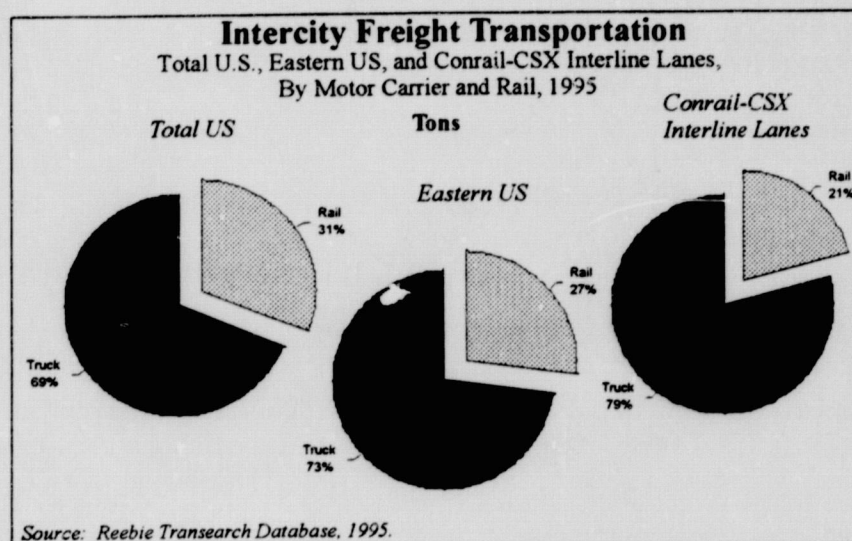
We next investigated and isolated those lanes that CSX will transfer from interline to single-line as a result of the proposed transaction (henceforth "Conrail-CSX interline lanes"). The average length-of-haul on these lanes was much higher than the national average (874 miles

^v These mileage numbers are freight-weighted averages, i.e., they were calculated by weighting a given length of haul by the percent of overall tons on that length of haul. Source: the 1995 Reebie Transearch Database, Highway miles; see Appendix B for more details.

^{vi} 1995 Reebie Transearch Database, Highway miles; see Appendix B for more detail.

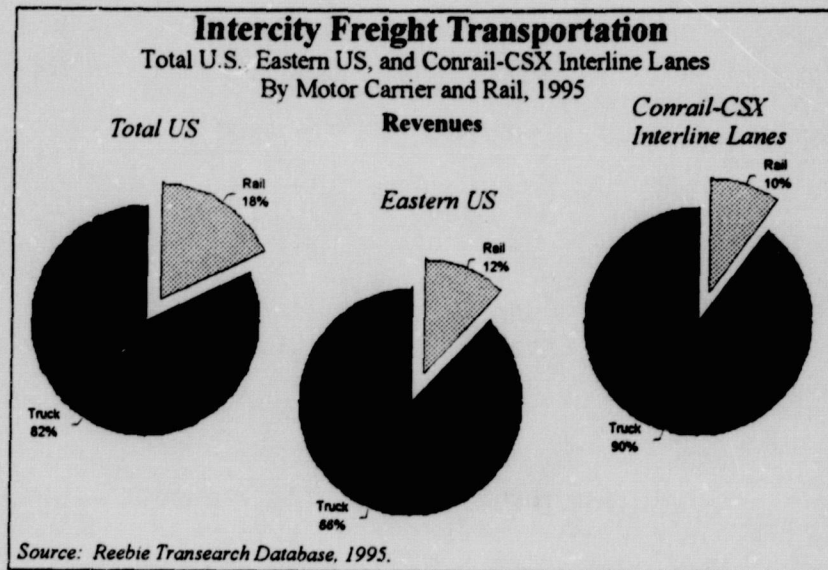
versus 432 miles nationwide). This would lead us to expect a higher rail share and lower motor carrier share on these lanes than the nation as a whole. In fact, we found the opposite: Average motor carrier share across the Conrail-CSX interline lanes was not only higher than the national average, but it was also higher than the eastern average, as Figures 4a and 4b^{vii} show. This suggests that motor carriers are not only very competitive in the East, but even more so on Conrail-CSX interline lanes.

Figure 4a:



^{vii}Rail percentage includes rail carload and intermodal. Truck percentage includes truckload, LTL and private truckload shipments; water, air, and pipeline shipments were excluded. See Appendix B for details on Reebie Transearch Database.

Figure 4b:



In short, motor carriers have had a large and increasing share of the freight transportation market across the nation; and they have a particularly significant, vital, and highly competitive position in the East, especially on Conrail-CSX interline lanes.

The expanded CSX rail network that will result from the transaction will allow a more effective competitive rail response to truck competition than either Conrail or CSX, individually, is able to pose today. Accordingly, for reasons discussed below and in the testimony of other witnesses, I believe that there will be significant diversion of freight to the newly-expanded CSX system -- and particularly to intermodal services -- from motor carriers as a result of the proposed transaction. Thus, one of the primary impacts of the transaction will be to intensify truck-rail competition and to increase rail market share on important traffic lanes. At the same time, the pervasiveness, flexibility and other inherent advantages of motor carriers discussed above will

ensure that they will remain the dominant competitive alternative for virtually all traffic in the East.

B. Expanded Rail Competition

The transaction will create new competition between CSX and NS where Conrail is today the primary carrier providing service -- notably the New York/Northern New Jersey area, Southern New Jersey and the Monongahela coal mining area in Western Pennsylvania. For the first time in decades, shippers located along important north-south and east-west traffic lanes will have competitive rail options made available by head-to-head competition between CSX and NS. The vigorous competition between two rail carriers serving the coal mines of the Powder River Basin in the 1980's made a deep impression on me. I have concluded from my experience during that period and from many other examples that two strong railroads serving any origin and destination can and do compete vigorously.

Vigorous competition between two railroads occurs regularly and is stimulated by the economics of the industry even in the rare instances where rail does not face competition from other modes. First, the rail industry has a relatively high ratio of fixed to short-run variable costs. With the bulk of its costs already sunk, a railroad has strong incentives to compete for the incremental carload (or trainload) of traffic, as long as the revenue from the movement exceeds short-run variable costs.

Second, the typical rail customer has substantial buying power, not only from existing volumes and diverse operations, but also from potential future investments anywhere on the

nation's rail system. Industrial logistics managers have become increasingly skilled in exercising that leverage in contract negotiations with transportation providers.

Finally, geographic source competition for the product being transported often dramatically increases the alternatives for both shippers and railroads -- providing competition well beyond the two railroad competitors in any particular origin-to destination market.

The STB has recognized the intensity of two railroad competition in a variety of decisions. As the industry has consolidated, competition has, if anything, become more intensive. In the UP/SP decision, the STB explicitly stated:

We now believe that rail carriers can and do compete effectively with each other in two-carrier markets . . . In prior mergers, the ICC often permitted the number of railroads offering service in a given market to decrease to two railroads. Indeed, it approved mergers resulting in only two major railroads serving large portions of the East. The two railroads, CSX and NS, have competed effectively in these markets . . . [and] there is no evidence that railroads have colluded, overtly or tacitly, to maintain inefficient operations, unresponsive service, or above-market rate levels.^{viii}

C. Improved Rail Competitiveness

The current rail network structure makes it difficult for rail carriers to provide shippers in the Northeast with the high-quality rail service they enjoy in other regions where there is more single-line service and the rail systems have broader reach. Without a highly effective single-line rail transportation option, shippers in the Northeast have turned to motor carriers to a greater

^{viii} STB Finance Docket No. 32760, Union Pacific Corporation, Union Pacific Railroad Company and Missouri Pacific Railroad Company--Control and Merger--Southern Pacific Rail Corporation (Aug. 12, 1996) (UP/SP Decision), pp. 117-119.

extent than in other regions. The data presented above demonstrate what rail marketers have long considered to be the case: Motor carrier market penetration is higher on Conrail-CSX interline lanes than on all national -- and even all eastern -- lanes.

Despite the fact that motor carriers can offer attractive competitive advantages as they vie for shippers' business, new single-line rail services created by the transaction will increase rail's competitiveness in the marketplace. CSX and NS will be able to compete more effectively with motor carriers on lanes where they will provide seamless, single-line service with their expanded networks.

Single-line rail service is generally superior to interline service. For time-sensitive traffic, particularly intermodal traffic, the additional handling, terminal delays and scheduling problems often make interline service too slow or unreliable to compete effectively with motor carriers. Beyond these transit time issues, interline service raises several other obstacles that stem from the increased transaction costs of dealing with and coordinating between two rail carriers, rather than one. In interline service, the shipper too often is required to communicate with both the origination and destination rail carrier to fix service and equipment problems, resolve invoice and freight claim questions, track shipments, and even negotiate rates and contracts. Loss and damage claims can be especially frustrating, as the shipper may need to assume the role of both customer and mediator between the two carriers. Furthermore, interline service can be difficult for the railroads to market in relatively short and medium haul lanes -- particularly for low margin commodities. With two carriers involved, it is also more difficult for the railroads to respond quickly and aggressively to motor carrier pricing initiatives. The increased costs associated with

the need for each carrier to, in effect, originate a move can price the rail mode out of the market. Coordinating train schedules poses another, often unmet, challenge to interline services, particularly with respect to time-sensitive cargo. In the face of these difficulties, rail market managers and shipper traffic managers often cannot justify investing the time and effort needed to arrange effective interline rail service.

During my tenure at Burlington Northern, we began a series of initiatives designed to remedy the pronounced service problems we persistently encountered on interline lanes. Despite our efforts to create an interline service that appeared to be seamless to the customer, we had significant difficulties. Cars were frequently delayed, lost, mis-switched, and inefficiently prioritized -- while each carrier pointed to the other as the guilty party. As a result, shippers face an increase in actual transit time and transit time variability. As any inventory management professional will state, an increase in either will lead to a costly increase in product inventory levels, further reducing the attractiveness of rail.

The advantages of single-line rail service to customers have long been recognized. As the ICC stated in the 1980 Chessie-Seaboard merger:

Single-system service will provide an incentive to encourage the movement of traffic if it is profitable to the system as a whole, even if it might be unattractive to the origin carrier viewed alone.

Again, in the Chessie-Seaboard decision, the ICC said:

^{ix} CSX Corp.--Control--Chessie System, Inc. and Seaboard Coast Line Industries, Inc., 363 ICC 517, 554 (1980). (Chessie-Seaboard Decision).

[B]y creating a single system operation connecting major north-south city pairs...the affiliated carriers will be able to compete more effectively with truck and barge operations, which now provide shippers a multiplicity of single carrier options.^x

In the 1995 UP/CNW decision, the ICC recognized the "...substantial efficiencies of single-line service compared to joint-line service."^{xi} That same year, the ICC stated in the BN/SF decision that:

Traditional interline railroad service has had difficulty competing with truck service... Rail service, if it is to compete with truck service, must match trucks' quality threshold and provide competitive rates. The record indicates that a commonly controlled BNSF will have the wherewithal to compete with trucks.^{xii}

Most recently, in its August 1996 UP/SP Decision, the Board supported the ICC's track record of "consistently recogniz[ing] the substantial public benefits that can be derived through creating new single-line services."^{xiii}

In my opinion, a central advantage of the proposed transaction is the expansion of single-line services. CSX will undoubtedly become far more competitive with trucks in lanes where it only competes today through interline service with Conrail. As a result, I am confident that CSX will be successful in winning significant volumes of traffic from the highway.

^x Chessie-Seaboard Decision, pg. 563.

^{xi} ICC Finance Docket No. 32133, Union Pacific Corporation, Union Pacific Railroad Company and Missouri Pacific Railroad Company--Control--Chicago and North Western Railway Company (1995) at 66. (UP/CNW Decision).

^{xii} ICC Finance Docket No. 32549, Burlington Northern Inc. and Burlington Northern Railroad Company--Control and Merger--Santa Fe Pacific Corporation and The Atchison, Topeka and Santa Fe Railway Company, (1995) at 61. (BN/SF Decision).

^{xiii} UP/SP Decision, pg. 133.

III. The Enhanced CSX System

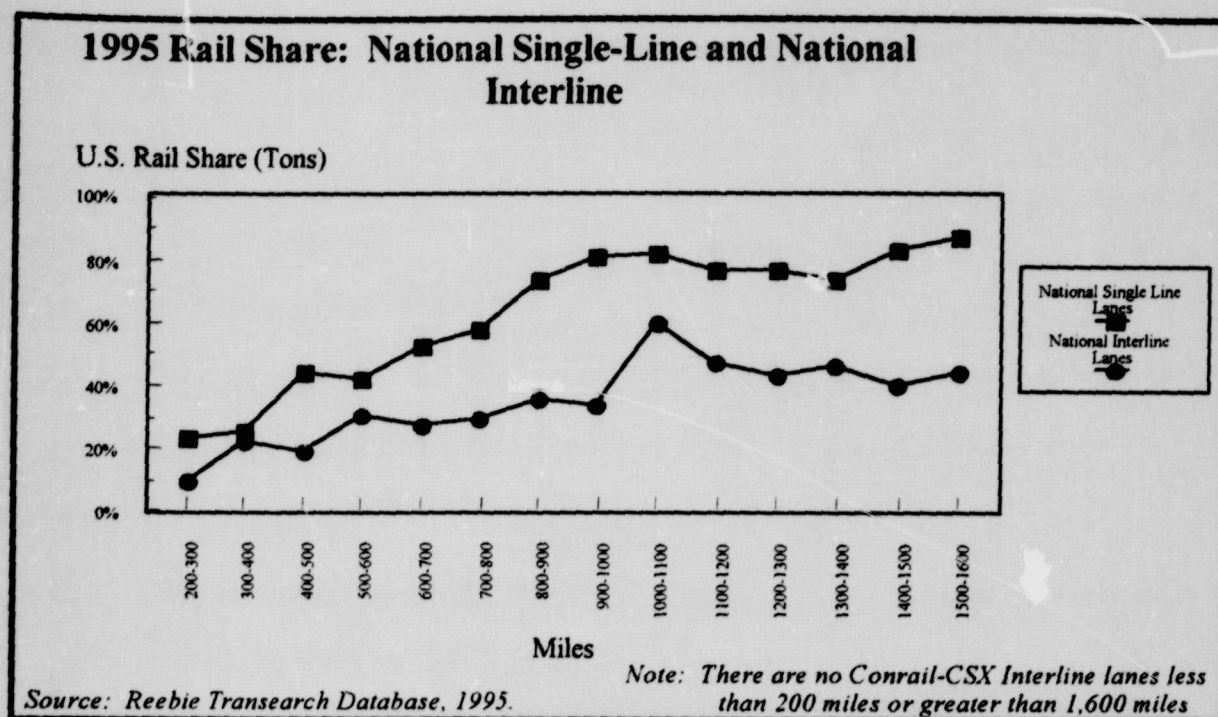
In this section, I will assess, in general, the long-term impact of converting lanes from interline to single-line service on the CSX system. The proposed transaction will create an enormous opportunity for traffic diversion from the highway to rail through the creation of a more efficient rail system providing more single-line service to a host of origins and destinations.

In total, the proposed transaction will provide CSX with 278 new single-line lanes between Business Economic Areas (BEAs) currently served by CSX and BEAs served by newly acquired Conrail lines. The transportation revenue generated by rail and motor carrier on these lanes in 1995 was \$2,824 million. Of that, existing interline rail service (rail carload and intermodal) captured only \$283 million -- or barely 10 percent of the total.^{xiv} This compares with a rail share of the total national truck and rail freight revenue of 18 percent, as shown previously.

To assess the long-term potential for highway conversion to rail from the creation of single-line service, we conducted an analysis of the difference in rail share between interline and single-line lanes on a national level. In this analysis, we controlled for highway mileage differences between lanes (lane distance has a major impact on modal attractiveness) and broad commodity distinctions (carload commodities have different characteristics and modal tendencies than intermodal commodities). Figure 5 below tells a compelling story. Rail share on interline lanes lags considerably below the rail share obtained in similar lanes where single-line service is available.

^{xiv} See Appendix C for further detail.

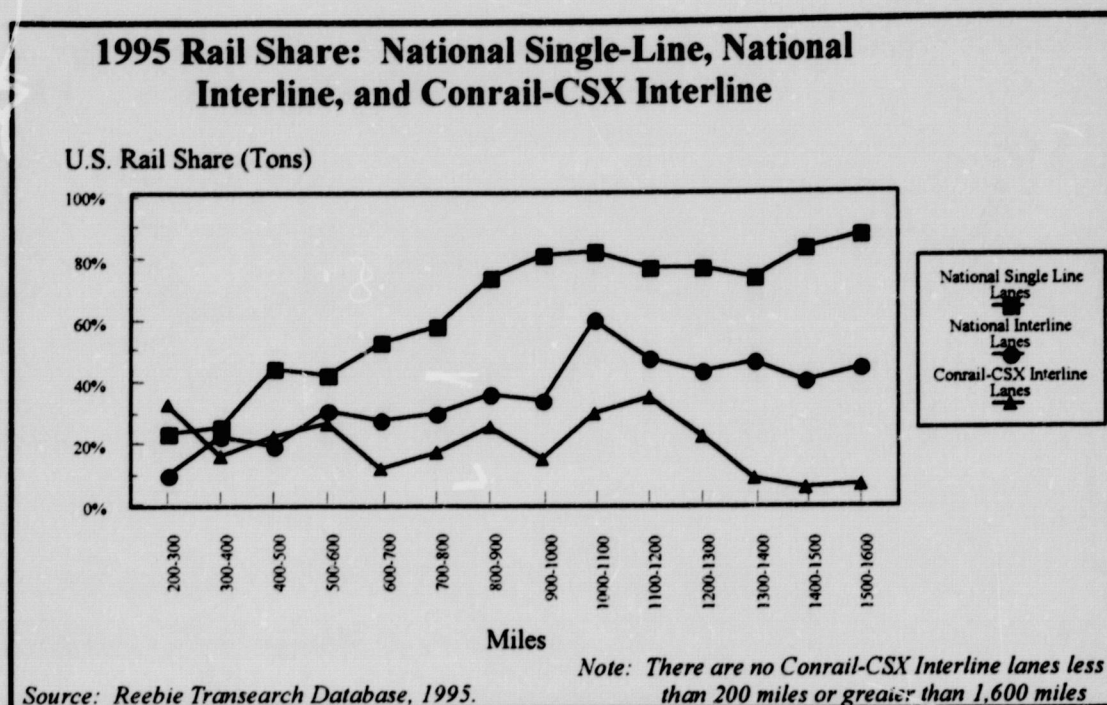
Figure 5^{xv}:



We next ascertained whether the same rail share gap existed when looking at pro-transaction interline lanes. In fact, as Figure 6 shows, we found an even larger rail share gap on these lanes: The share on Conrail-CSX interline lanes in most instances was even lower than the national interline average.

^{xv} Rail percentage includes rail carload and intermodal. Truck percentage includes truckload, LTL and private truckload shipments; water, air, and pipeline shipments were excluded. See Appendix B for details on Reebe Transearch Database.

Figure 6^{xvi}:

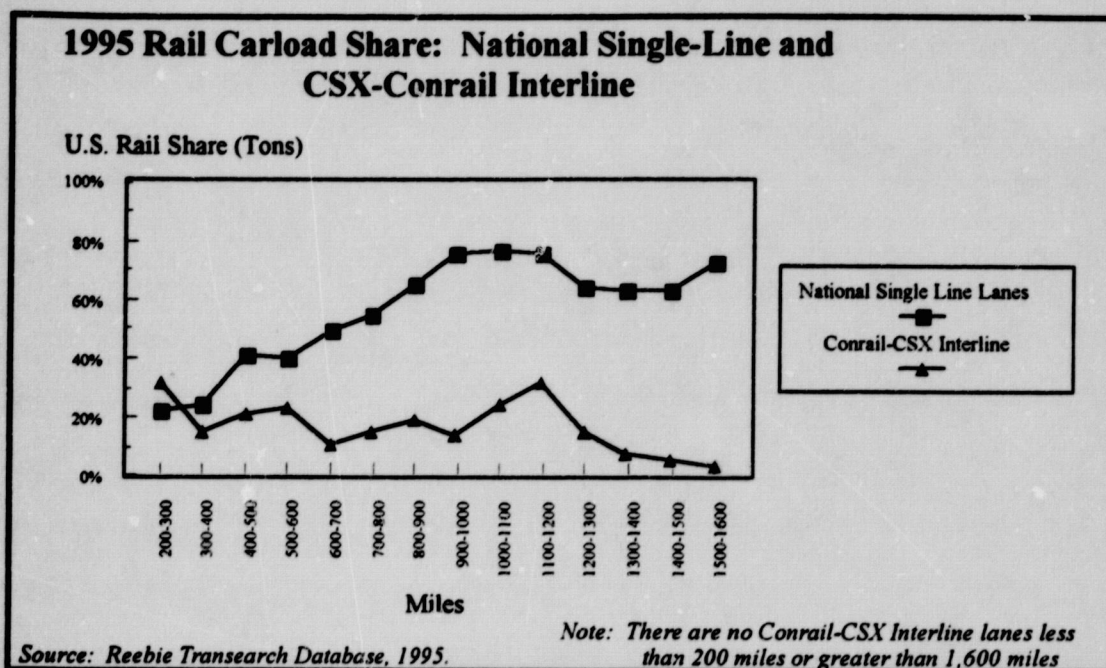


We then determined if the rail share gap differed for carload versus intermodal. To do so, we calculated national average single-line and Conrail-CSX interline rail share independently for both intermodal and carload movements. As Figures 7a and 7b show,^{xvii} we found a sizable rail share gap in both instances.

^{xvi} Rail percentage includes rail carload and intermodal. Truck percentage includes truckload, LTL and private truckload shipments; water, air, and pipeline shipments were excluded. See Appendix B for details on Reebe Transearch Database.

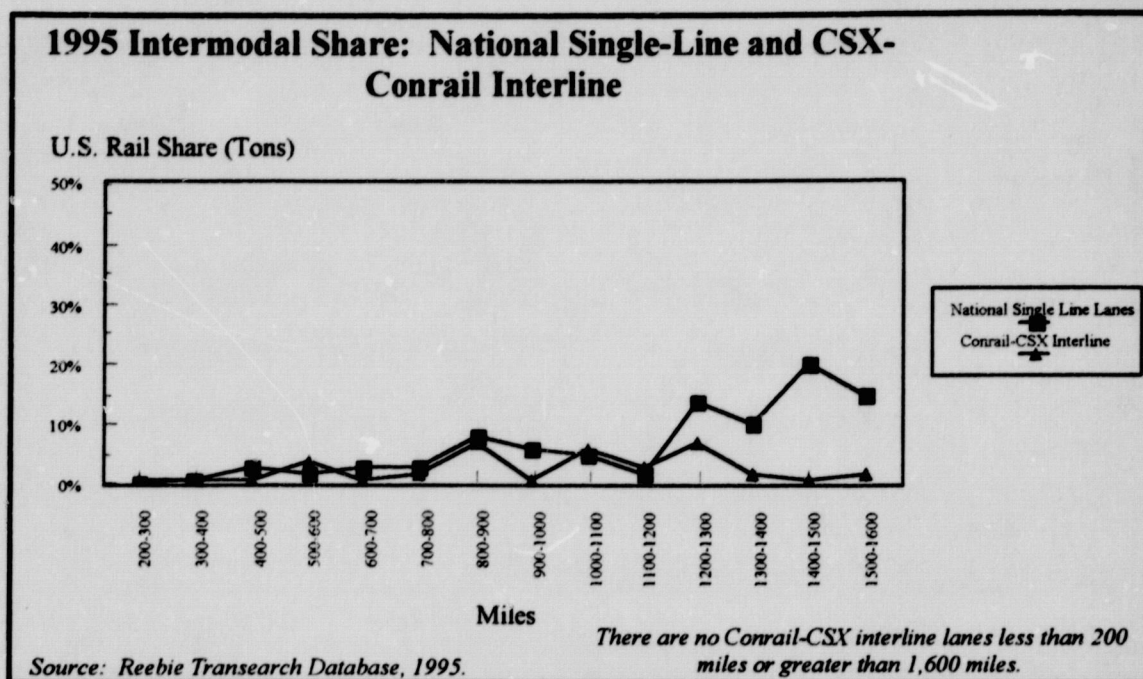
^{xvii} Rail percentage includes rail carload and intermodal. Truck percentage includes truckload, LTL and private truckload shipments; water, air, and pipeline shipments were excluded. See Appendix B for details on Reebe Transearch Database.

Figure 7a:



While the intermodal gap is not apparent on shorter haul lanes, this is not surprising because intermodal is generally not competitive with motor carriers on shorter lanes. The gap is quite evident in longer haul lanes, particularly over 1,200 miles, including a high potential for highway diversions.

Figure 7b:



As a result of the proposed transaction, we would expect -- over the long-term -- Conrail-CSX interline lane rail shares to reach average national single-line lane levels, diverting significant freight volumes from the highways to rail. We calculated that, if Conrail-CSX interline lanes fully attained national single-line average rail share averages, there would be a \$818 million (14 million ton) diversion opportunity.^{xviii} Over the long-term, this implies nearly a quadrupling of rail share on Conrail-CSX interline lanes.^{xix}

^{xviii} See Appendix D for further discussion of this data.

^{xix} If national average single line rail share is attained across all Conrail-CSX interline lanes, rail share will rise to 39% (compared to a current level of 10%).

While the \$818 million opportunity is extremely significant, I believe it to be a conservative estimate for four reasons. First, this diversion calculation only considered lanes that have no single-line service whatsoever today. It did not consider lanes where pre-existing single-line service will be enhanced or expanded. This will occur in at least two instances. Enhanced service will occur where, for example, CSX already offers single-line service but will, after the transaction, make operating changes that will improve the transit times and reliability it can offer in competition with trucks. I understand that the increased densities that are expected will enable CSX to perform fewer classifications on carload traffic in some service lanes. I also understand that CSX will be able to use the enhanced network to avoid certain congested terminals altogether -- even in single-line service. These kinds of density-related service enhancements will increase CSX's ability to compete, but are not considered in our study.

In addition, enhanced service will occur where previously Conrail-serviced industries or terminals can be serviced in a BEA by a pre-existing single-line carrier (e.g., CSX and Norfolk Southern enhanced service to Detroit and Chicago will expand the number of stations that receive single-line service from these carriers). With more competitive rail service on such lanes, I would expect an even more sizable highway diversion opportunity.

Second, our diversion opportunity was also conservative because of our use of *weighted average single-line share* as the opportunity benchmark. Our definition of current single-line included all lanes that are potentially serviced by a single-line carrier, regardless of circuitry. Without doubt, efficient single-line service is not offered on all of these lanes -- such that shippers, in some instances, may be choosing more efficient interline alternatives. If we removed these

poorly performing lanes from our current single-line category, the weighted average single-line share would increase and lead to a higher opportunity benchmark. For instance, while CSX offers single-line service from Parkersburg, WV to Philadelphia, PA, all rail freight travels in Conrail-CSX interline moves. This, in turn, would create an even larger diversion potential than our existing estimate indicates.

Third, I believe that our diversion opportunity was conservative because of our use of *average single-line* share. Looking across commodity groups, single-line rail market share is significantly higher than the average where railroads have focused their marketing, scheduling, and pricing on a specific industry or commodity. The railroads' experience with the movement of set-up automobiles exemplifies this very phenomenon. While automobiles are arguably particularly amenable to rail shipment, I believe that railroads' targeted focus on this commodity is an equal -- if not greater -- driver of rail share. As such, I believe that if railroads focus their energies on other commodities as they have with automobiles, there is no reason why our single-line share benchmark cannot approach that achieved with automobiles.

The estimates of diversion potential that I have presented in this statement represent the *long-term* diversion opportunity available to CSX. Our projections assume a 5-10 year time period, and also assume not just the expansion, but the construction of wholly new facilities and the acquisition of wholly new customers.

CSX has also conducted and sponsored *short-term* highway-to-rail diversion analyses (focusing on intermodal traffic and on carload traffic) in addition to the analysis of diversion potential presented above. The results of these studies are presented in the verified statements of

Joseph Bryan and John Q. Anderson (who address the truck-to-intermodal rail and intermodal extended haul studies, respectively) and Christopher P. Jenkins (who discusses the truck-to-carload study). CSX's diversion studies were designed to provide a conservative estimate of the *short-term* diversion opportunity during the next three years. These studies are based on modest near-term capital investments and a limited number of new customers.

Understandably, CSX's short-term highway diversion studies offer a conservative estimate of diversion compared to the long-term potential opportunity identified above. Therefore, I will use the more conservative CSX diversion estimates in the following section to evaluate the short-term public benefits of this acquisition.

IV. The Public Benefits

In this section, I will address the public benefits associated with CSX short-term highway diversions from the proposed transaction in two ways: first, in terms of reducing total shipper transportation costs and, second, in terms of other benefits, including those from a reduction in damage to the highway system and to subsequent highway users. I will conclude this section with a summary of key public benefits that will flow from the traffic diversions resulting from the proposed transaction.

A. Benefits from Reduced Transportation Costs

Freight shifting between transportation modes inherently implies the creation of a net benefit. Shippers will only shift transportation between modes in instances when they perceive some rational advantage to doing so -- regardless of whether that advantage

comes from improvements in transportation cost, transit time, reliability, safety, or product damage. Therefore, the evidence of higher rail shares in single-line lanes and the highway diversion estimates presented above and by CSX indicate that the proposed transaction will create substantial public benefits.

The ICC has held that:

Traffic diversions, as such, are not public benefits; only the service improvement and cost savings associated with traffic diversions can be counted as public benefits....Public benefits may be defined as efficiency gains which may or may not be shared with shippers and which include both cost reductions and service improvements.^{xx}

Therefore, the public benefit of highway diversions can come in two forms:

- 1.) The railroads provide better product and service with the same resources -- in terms of improvements in transportation cost to shippers, reliability, safety, and transit time, and
- 2.) The railroads providing the same product and service with fewer resources.

In this section, I will determine the public benefit by quantifying the potential savings to the shipper and rail carrier from reducing the total cost of shipping the diverted freight which includes both forms of benefit described above. The methodology is presented below and at length in Appendix E. To conduct this analysis, we followed a four-step process:

- 1.) *We determined the total tons diverted from motor carrier to rail by lane.*^{xxi}
- 2.) *We calculated the total incremental economic cost of shipping those tons by motor carrier.*

^{xx} UP/CNW Decision, pp. 53, 67.

^{xxi} Based on the short-term intermodal and carload diversion studies sponsored by CSX; excludes all diversions from barge and pipeline.

3.) *We then calculated the total incremental economic cost of shipping those tons by rail. This cost, in turn, included four subcomponents:*

- a.) *Long-run variable rail linehaul costs.* Long-run variable cost was used to approximate the incremental cost of shipping -- including the investment costs associated with system wear from added use.
- b.) *Associated drayage and terminal costs.*
- c.) *Incremental inventory costs.* This results from the additional transit time generally required of shipping by rail and the associated inventory carrying cost of having these goods in transit longer.
- d.) *Incremental loss and damage costs.* This results from the additional loss/damages associated with shipping some commodities by rail compared to truck.

4.) *The difference between 2.) and 3.) represented the total economic savings opportunity to both the rail carrier and shipper.*

We found that difference -- that is the total potential public benefit -- to be \$166 million.

Because of continued competition from motor carriers, the marketplace will force rail carriers to pass the bulk of these savings on to shippers.

B. Other Benefits From Highway Diversions

In addition to the transportation cost benefits presented above, there are a variety of other public benefits which result from highway diversions. In this section, I will discuss those benefits and, in the instance of reduced highway damage, quantify them.

There is a substantial fuel savings benefit from diverting freight from the highways. This is described in the Environmental Report submitted with the Application, which shows that an estimated 56,111,000 gallons will be saved as a result of the highway diversions. While the fuel cost savings are part of the transportation cost benefits presented above, it is important to highlight the fuel savings because they represent the reduction in the use of natural resources that

are imported from other countries. This, in turn, will have positive implications on both our nation's trade imbalances and national security.

Along with fuel savings, the Environmental Report also demonstrates the significant air quality improvements resulting from the diversion of freight from the highways to rail. These improvements are estimated to include:

<u>Quantity</u>	<u>Substance</u>
592 tons	Nitrogen Oxides
2,925 tons	Carbon Monoxide
810 tons	Particulate matter
.027 tons	Lead
457 tons	Volatile Organic Compounds (VOCs)

Apart from fuel use and air quality deficits, trucks have a direct and negative impact on our highway system in three ways-- increased accidents, higher levels of traffic congestion, and more serious highway damage.

While the trucking industry has made improvements in accident rates in recent years, accidents involving trucks still do occur. Therefore, any reduction in truck highway use will decrease the overall frequency of such accidents. And that -- in terms of destroyed property and, especially, injuries and lives lost -- is a public benefit. The Environmental Report quantifies these

safety benefits. It is estimated that highway diversions would result in 870 fewer truck crashes, of which 225 would involve personal injury and 11 would involve fatalities.

Moreover, despite the efforts of many creative congestion reduction programs, congestion in many of the country's metropolitan areas and on major intercity arteries is a serious problem. To the extent that trucks are taken off the highway, congestion levels should decrease -- to the public benefit as well.

The reduction in pavement damage to our nation's burdened highway system is another important public benefit from this transaction. Highway damage is a pervasive problem in the United States and has multiple detrimental effects on the public at large. First, it requires the increased investment of scarce public money to finance expensive highway maintenance. It is estimated that such expenditures are on the order of tens of billions of dollars annually^{xxii} -- just to maintain our current highway infrastructure.

The second consequence of highway wear is costs incurred by subsequent highway users -
- most significantly in terms of automobile vehicle wear and repair costs. Highway wear exacts further costs by increasing vehicle depreciation and fuel use -- all of which are avoidable public costs.

^{xxii} Small, Kenneth A.; Winston, Clifford; and Evans, Carol A. Road Work: A New Highway Pricing and Investment Policy. The Brookings Institution. 1989, pg. 1.

It has been found that highway damage^{xxiii} increases disproportionately with axle load -- varying approximately with the cube of the axle load.^{xxiv} Because of their much higher axle loads, trucks inflict the vast majority of damage to our nation's highways.^{xxv} We have estimated that the average truck exacts \$.12/mile in damage to the highway system, above and beyond its contributions to that system in fuel and other forms of taxes.^{xxvi} By multiplying this damage rate by total diversion truck-miles, we estimated a public highway damage savings of \$50 million.

C. Summary of Public Benefits

I am confident that the public benefits described above will occur, driven by the intensive competition between motor carriers and rail, the expansion of head-to-head competition between CSX and Norfolk Southern, and the improvement of rail products resulting from the conversion of lanes from interline to single line rail service.

^{xxiii} Henceforth, highway damage refers to direct damage to the highways as well as damage to subsequent users.

^{xxiv} Small, et al. Pg. 11.

^{xxv} Ibid, pg. 11.

^{xxvi} See Appendix F for further discussion of this data.

The total value of all of these public benefits is \$216 million.

Type of Benefit	Amount
Reduced Transportation Costs	\$166 million
<u>Reduced Highway Wear</u>	<u>\$50 million</u>
Total	\$216 million

V. Appendices

A. Appendix A: Darius W. Gaskins, Jr. Credentials

Darius W. Gaskins, Jr.

Personal

Married with five children; wife: Stephanie R. Gaskins

Education

University of Michigan,, Ph.D., Economics, 1970
University of Michigan, M.S.E., Instrumental Engineering, 1963
University of Michigan, M.S.E., Astronautical Engineering, 1963
United States Military Academy, B.S. (distinguished graduate), 1961

Professional Experience

Partner, CFGW (Carlisle, Fagan, Gaskins, & Wise, Inc.), 1993-present

Partner, High Street Associates, Inc., 1991-present

Visiting Professor, Center for Business and Government, John F. Kennedy School of Government, Harvard University, 1989-1991

President and Chief Executive Officer, Burlington Northern Railroad, 1985-1989

Senior Vice President, Marketing and Sales, Burlington Northern Railroad, 1982-1985

Senior Vice President, Natomas North America, 1981-1982

Chairman, Interstate Commerce Commission, 1980-1981

Deputy Assistant Secretary, Policy Analysis, Department of Energy, 1978-1979

Director, Office of Economic Analysis, Civil Aeronautics Board, 1977-1978

Director, Bureau of Economics, Federal Trade Commission, 1976-1977

Assistant Professor, Department of Economics, University of California-Berkeley, 1975-1976 and 1970-1973

Economic Advisor, House Ad Hoc Committee on the Outer Continental Shelf, 1975

Department of the Interior

- Director, Office of Outer Continental Shelf, 1975
- Acting Director, Office of Minerals Policy Department, 1974
- Assistant Director, Economics, Office of Policy Analysis, 1973-1974

Instructor (Captain, USAF), Aerospace Research Pilots School, 1963-1967

Board Service

- Current Director:
 - Anacomp, Inc.
 - Northwestern Steel and Wire Company
 - Sapient Corporation
 - UNR Industries, Inc.
- Chairman:
 - Resources for the Future
- Past Director:
 - Burlington Northern, Inc.
 - Leaseway Transportation Corporation
 - MidSouth Corporation

Publications

"Managing the Transition to Deregulation," *Law & Contemporary Problems*, Duke University, 44, Winter 1982, pp. 9-32 (with J. M. Voytko).

"Unilateral Withholding," *Journal of Land Economics*, 55, No. 1, February 1979 (with J. Haring).

"An Economic Analysis of Pre-Sale Exploration in Oil and Gas Lease Sales," *Essays on Industrial Organization in Honor of Joe S. Bain*, R. Masson and P. Quallis, editors, Ballinger, 1976 (with T. Teisberg).

"Alcoa Revisited: The Welfare Implications of a Secondhand Market," *Journal of Economic Theory*, 7, No. 3, March 1974.

"Dynamic Limit Pricing: Optimal Pricing Under Threat of Entry," *Journal of Economic Theory*, 3, No. 3, September 1971.

"Evaluation of the ARA-E DR Loan Program," *Papers of the Regional Science Association*, Vol. XXIII, 1970 (with D. Liner and S. Miller).

Selected Unpublished Papers

"A META PLAN: A Policy Response to Global Warming," for the Energy and Environmental Policy Center at Harvard University, July 1990 (with B. Stramm).

"Joint Buyers and the Seller's Return - The Case of OCS Lease Sales," part of testimony before the House Subcommittee on Monopolies and Commercial Law, 94th Congress (with B. Vann).

"Dynamic Limit Pricing and Rational Entrants," presented at the Econometrics Society Meetings, December 1977.

B.) Appendix B: 1995 Reebie TRANSEARCH Database

The initial raw data for many of the analyses contained herein was Reebie's 1995 Transearch database, which offers annual tonnage data between all BEAs (Business Economic Areas) within the United States, further segregated by three-digit STCC commodity code. This data is presented for six modes of transportation -- truckload, less-than truckload, private trucking, rail carload, intermodal, and water movements. In addition, Reebie provided highway and railroad miles for each BEA pair, and, using its internal models, converted all tonnage data into freight revenue data.

We made a number of enhancements to the raw Reebie data to support our analyses. First and foremost, we modified the intermodal data to account for gateway rebilling of shipment movements. That is, an intermodal shipment (e.g., New York to Los Angeles) that changes carriers at a gateway (e.g., Chicago) may appear in Transearch as two intermodal movements -- New York to Chicago, and Chicago to Los Angeles. This has the effect of *overcounting* the volume in the two shorter lanes (New York to Chicago and Chicago to Los Angeles) and *undercounting* the volume moving on the longer lane (New York and Los Angeles). Using estimates of gateway rebilling rates provided by various intermodal exports, we adjusted the database to better reflect the actual origin and destination of these shipments.

The following rebilling assumptions were used:

Gateway	Rebill Percentage Eastbound	Rebill Percentage Westbound
Chicago	18%	44%
St. Louis	20%	38%
Memphis	20%	10%
New Orleans	20%	38%

Second, we categorized each BEA by rail carrier coverage and, in turn, each lane as either single-line or interline, based on the methodology described in Appendix C.

Third, we aggregated BEA-BEA pairs into 100-mile increments (0-100; 100-200; 200-300; ...; 1,900-2,000; 2,000+). This was done for purposes of comparing similar-length lanes.

Finally, we eliminated water flows from the database. This was done so that the diversion analysis would source directly from the highways, rather than from both highway and water together. The assumption, therefore, is a conservative one, potentially understating the total diversions to rail that may result from the transaction.

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C.) Appendix C: Interline and Single-Line Lanes

It was assumed that any pair of BEAs that *could* be serviced by a single carrier -- regardless of circuitry -- was classified as single-line, while any pair of BEAs that *could not* be served by a single carrier was classified as interline. It was understood that the universe of BEA pairs that we were defining as single-line did, in fact, contain some interline movements, as some shippers will sometimes choose to use a more efficient interline option over a more circuitous, although existent, single-line move.

To determine if a lane was interline or single-line, we had to:

1. Determine the *pre-transaction* railroad coverage map by BEA. For a given carrier to earn "coverage," we required that carrier to service 5% of the total tons originated in and destined for that BEA, according to the 1995 Waybill Study. The following rail coverage assumptions were used (CR, CSX, NS or Other):

1	Bangor, ME	Other
2	Portland, ME	Other
3	Burlington, VT	Other
4	Boston, MA	CR
5	Providence, RI	Other
6	Hartford, CT	CR
7	Albany, NY	CR
8	Syracuse, NY	CR
9	Rochester, NY	CR
10	Buffalo, NY	CR, NS
11	Binghamton, NY	CR
12	New York, NY	CR
13	Scranton, PA	CR
14	Williamsport, PA	CR
15	Erie, PA	CR, NS
16	Pittsburgh, PA	CSX, CR
17	Harrisburg, PA	CSX, CR
18	Philadelphia, PA	CSX, CR
19	Baltimore, MD	CSX, CR
20	Washington, DC	CSX, NS, CR
21	Roanoke, VA	CSX, NS
22	Richmond, VA	CSX, NS
23	Norfolk, VA	CSX, NS
24	Greenville, NC	CSX, NS
25	Wilmington, NC	CSX
26	Fayetteville, NC	CSX, NS
27	Raleigh, NC	CSX, NS
28	Greensboro, NC	CSX, NS
29	Charlotte, NC	CSX, NS
30	Asheville, NC	NS

31	Spartanburg, SC	CSX, NS
32	Columbia, SC	CSX, NS
33	Florence, SC	CSX
34	Charleston, SC	CSX, NS
35	Augusta, GA	CSX, NS
36	Atlanta, GA	CSX, NS
37	Columbus, GA	CSX, NS
38	Macon, GA	CSX, NS
39	Savannah, GA	CSX, NS
40	Albany, GA	CSX, NS
41	Jacksonville, FL	CSX, NS
42	Orlando, FL	CSX
43	Miami, FL	CSX
44	Tampa, FL	CSX
45	Tallahassee, FL	CSX, NS
46	Pensacola, FL	CSX
47	Mobile, AL	CSX, NS
48	Montgomery, AL	CSX, NS
49	Birmingham, AL	CSX, NS
50	Huntsville, AL	CSX, NS
51	Chattanooga, TN	CSX, NS
52	Bristol, VA	CSX, NS
53	Knoxville, TN	CSX, NS
54	Nashville, TN	CSX
55	Memphis, TN	CSX, NS
56	Paducah, KY	Other
57	Louisville, KY	CSX, NS
58	Lexington, KY	CSX, NS
59	Huntington, WV	CSX, NS
60	Charleston, WV	CSX, NS, CR

61	Fairmont, WV	CSX, CR
62	Parikensburg, WV	CSX
63	Wheeling, WV	CSX, CR
64	Youngstown, OH	CSX, CR
65	Cleveland, OH	CSX, NS, CR
66	Columbus, OH	CSX, NS, CR
67	Cincinnati, OH	CSX, NS, CR
68	Dayton, OH	CSX, CR
69	Lima, OH	CSX, NS, CR
70	Toledo, OH	CSX, NS, CR
71	Detroit, MI	CSX, NS, CR
72	Saginaw, MI	CSX
73	Grand Rapids, MI	CSX, CR
74	Lansing, MI	CSX, CR
75	South Bend, IN	CSX, NS, CR
76	Fort Wayne, IN	CSX, NS, CR
77	Kokomo, IN	CR, NS
78	Muncie, IN	CSX, CR, NS
79	Indianapolis, IN	CSX, CR
80	Evansville, IN	CSX, NS
81	Terre Haute, IN	CSX
82	Lafayette, IN	CSX, CR, NS
83	Chicago, IL	CSX, NS, CR
84	Champaign, IL	CSX, NS, CR
85	Springfield, IL	CSX, NS
86	Quincy, IL	NS
87	Peoria, IL	NS
107	St. Louis, MO	CSX, NS, CR
112	Jackson, MS	Other
113	New Orleans, LA	CSX, NS

2. Determine *post-transaction* railroad coverage map by BEA. We amended the above coverage map by adjusting for those BEAs to which CSX will gain new access under the proposed transaction.

- *CSX newly accessible Conrail BEAs:* Erie, PA; Buffalo, NY; Rochester, NY; Syracuse, NY; Albany, NY; New York, NY; Hartford, CT; and Boston, MA

3. We then did the same for Norfolk Southern

- *Norfolk Southern newly accessible Conrail BEAs:* Lansing, MI; Grand Rapids, MI; Dayton, OH; Youngstown, OH; Wheeling, WV; Pittsburgh, PA; Philadelphia, PA; Harrisburg, PA; Williamsport, PA; Binghamton, NY; New York, NY; Rochester, NY; Baltimore, MD; Fairmont, WV; Scranton, PA; and Indianapolis, IN

4. The number of lanes that converted from interline to CSX single-line rail service was determined by using the BEA coverage assumptions obtained in the above steps. New lanes will be created in two scenarios based on CSX pre-acquisition coverage:

- *Lanes to/from BEAs where CSX offers exclusive coverage.* Here, new CSX single-line service will be provided between BEAs to which CSX will gain new service (8 were identified, see step 2) and BEAs where CSX currently has exclusive coverage (10 were identified, see below).

- *CSX exclusive BEAs:* Terre Haute, IN; Saginaw, MI; Parkersburg, WV; Nashville, TN; Pensacola, FL; Tampa, FL; Miami, FL; Orlando, FL; Florence, SC; and Wilmington, NC

- *In total, 80 lanes were identified in this manner (8 x 10 = 80).*

- *Lanes to/from BEAs where both CSX and NS offer coverage.* Here, new CSX single-line service will be provided between:

- BEAs to which CSX will gain new service that are currently not serviced by NS (6 were identified, see step 2 and exclude Erie, PA, and Buffalo, NY, as they are already serviced by NS)
- BEAs currently serviced by both CSX and Norfolk Southern (33 were identified, see below)

- * *CSX and NS BEAs include:* Roanoke, VA; Richmond, VA; Norfolk, VA; Greenville, NC; Fayetteville, NC; Raleigh, NC; Greensboro, NC; Charlotte, NC; Spartanburg, SC; Columbia, SC; Charleston, SC; Augusta, GA; Atlanta, GA; Columbus, GA; Macon, GA; Savannah, GA; Albany, GA; Jacksonville, FL; Tallahassee, FL; Mobile, AL; Montgomery, AL; Birmingham, AL; Huntsville, AL;

Chattanooga, TN; Bristol, VA; Knoxville, TN; Memphis, TN;
Louisville, KY; Lexington, KY; Huntington, WV; Evansville, IN;
Springfield, IL; and New Orleans, LA

* *In total, 198 lanes were identified in this manner ($6 \times 33 = 198$).*

5. *As a result of the proposed transaction, 278 new CSX single-line lanes were created.*

- Only newly formed, single-line lanes were considered for the studies contained herein. Lanes with pre-existing single-line lanes were not included. For instance Atlanta, GA (current CSX, NS coverage) to Dayton, OH (current CSX, CR). Although NS will offer single line service on this lane under the proposed transaction, it was not included because of CSX's pre-existing single line coverage.

To calculate the average rail share of all the 278 Conrail-CSX interline lanes, we had to classify freight flows on those lanes. To do so, we followed a three-step process using Reebe's 1995 Transearch Database (See Appendix B for more details on the Transearch Database):

1. We calculated the rail freight revenues (rail carload and intermodal) flowing on these lanes.
2. We calculated the total freight revenues (rail carload, intermodal, truckload, LTL, and private truckload) flowing on these lanes.
3. We then divided rail freight revenues (Step 1) by total freight revenues (Step 2) to determine the average rail share on these lanes.
4. This yielded a rail share of 10% across all Conrail-CSX interline lanes.

D.) Appendix D: Highway Diversion Study

To calculate the long-run highway to rail freight diversion opportunity on each of the 278

Conrail-CSX interline lanes described above, we used a six-step process:

1. *We calculated the current rail carload share in tons using the 1995 Reebie Transearch Database (see Appendix B for details). To calculate the share on each lane, we divided rail carload tons by total freight tons (defined as the sum of rail carload, intermodal, truckload, less-than-truckload, and private truckload tons).*
2. *We then determined the average rail carload share in tons for similar-length, single-line lanes across the nation. See Figure 7a for details.^{xxvii}*
3. *The difference was then calculated by subtracting Step 1 from Step 2.*
4. *This difference (calculated in Step 3) was then applied to the total freight tons currently flowing on the lane (calculated in Step 1) to determine the potential diversion opportunity.*

For example: Boston, MA to Jacksonville, FL (carload tons)

- Current lane rail carload rail share (1,238 miles): 16%
- National average rail carload share on single-line lanes of 1,200-1,300 miles: 64%
- Difference: 48%
- Total Freight on Lane 39,480 tons
- Potential Diversion Opportunity: $(48\%)(39,480 \text{ tons}) = 18,834 \text{ tons}$

5. *On lanes where -- as a result of the proposed transaction -- both CSX and NS will gain new single-line access, it was assumed that each rail carrier captured 50% of the potential diversion opportunity.*

For example: New York, NY to Atlanta, GA (carload tons)

- Current lane rail carload share (863 miles): 6%
- National average rail carload share on single-line lanes of 800-900 miles: 65%

^{xxvii} Calculating average single-line share on a national basis ensured statistically significant data sets across all mileage categories. Smaller, regional groupings failed to do so, particularly on longer length-of-haul lanes.

- Difference: 59%
- Total Freight on Lane 518,836 tons
- Total Potential Diversion Opportunity: $(59\%)*(518,836 \text{ tons}) = 307,252 \text{ tons}$
- CSX Traffic Share 50%
- CSX Portion of Diversion Opportunity $(50\%)*(307,252) =$
153,626

6. *This process was then repeated for rail carload revenues, intermodal tons, and intermodal revenues. The ton and revenue diversions were then summed across all Conrail-CSX interline lanes, yielding a total potential long-term diversion opportunity of \$818 million (14 million tons).*

E.) Appendix E: Calculation of Benefits to Shippers and Rail Community

This analysis quantified the difference in economic cost between shipping the diversion freight by truck and by rail on the Conrail-CSX interline lanes. To conduct this analysis, we utilized the short-term intermodal and carload diversion studies sponsored by CSX.^{xxviii}

To conduct the analysis, we had to first calculate the total incremental economic shipment costs by motor carrier for the diversion tons. Utilizing Reebie Associate's truck revenue model, we calculated motor carrier revenues/truck-mile and, assuming a 90% operating ratio, costs/truck-mile across all the Conrail-CSX interline lanes. [Note: Operating ratios across the motor carrier industry usually range from 90%-95%. As such, our use of a 90% ratio will generally understate motor carrier costs/ton and, in turn, the overall public benefit.] Finally, we multiplied the diversion truck-miles on each lane by the motor carrier cost/truck-mile for that lane, yielding the total shipment costs by motor carrier for the diversion tons.

Second, we had to calculate the total incremental economic shipping cost by rail for the diversion tons. This cost was, in turn, subdivided into four components:

- *Long-run variable rail linehaul costs*

Intermodal and carload long-run variable rail linehaul costs were estimated using URCS-based costing models by Reebie Associates and Klick, Kent, & Allen, respectively. [Note: These rail costs are based on CSX's current cost structure. The costs do not reflect the merger efficiencies outlined elsewhere in this merger filing. As a result, these models overstate rail costs and, in turn, understate the public benefit.] Additionally, we supplemented these models by adding third-party terminal costs (for both carload and intermodal) and third-party fees (for intermodal only).

^{xxviii} CSX assumed intermodal freight to be 15 tons/truckload and carload freight to be 23 tons/truckload and 70 tons/carload. Also, pipeline and barge carload diversions were excluded from this analysis.

- *Drayage costs*

We assumed drayage to be \$100 per trailer/container in all metropolitan areas except New York/Northern New Jersey, Chicago, and Los Angeles, where drayage rates were assumed to be \$150 per trailer/container.

For intermodal, drayage was assumed at both the origin and the destination of all shipments.

For carload, we assumed one transload/shipment. [Note: To the extent that a carload shipment does not require transloading at either end, this assumption overstates the rail shipping costs and, in turn, understates the public benefit.]

- *Incremental inventory costs*

Incremental inventory costs result from the additional transit time and associated inventory carrying costs generally required for shipping by rail carrier versus motor carrier.

To calculate these costs, we began by determining the average value of a load of diversion freight. Using the 1995 Reebe Transearch Database and 1993 Commodity Flow Survey, the value of an average load was determined for both intermodal and carload diversions. [Note: This methodology overstates the inventory carrying costs because the diversion freight will tend to be of lower value than freight currently serviced by motor carriers. As a result, the overstated incremental inventory cost will tend to understate the public benefit.]

Next, using the load values determined above, the carrying cost/year was calculated assuming a cost of capital of 20%/year. [Note: This includes the cost of capital plus the cost of warehousing and losses incurred from theft, damage, or other loss. As such, this rate probably overcompensates for these losses.]

Finally, CSX estimated that the average shipper diverting traffic from motor carrier to rail will experience a one-day delay in transit time. Using this assumption, the average carrying cost/load was calculated and applied to the total diversion loads, yielding the total incremental inventory carrying cost.

- *Incremental loss and damage costs*

The damage differential results from generally higher damage costs associated with rail transportation. It was calculated by subtracting the average motor carrier damage rate from the average rail damage rate. The average motor carrier damage rate was

calculated using available freight claim estimates from the American Truck Association and was determined to be \$.66/ton.^{xxix}

The average rail damage rate was calculated using available freight claim estimates from the Association of American Railroads. Claims/ton were determined by dividing total freight claims by total damageable freight. We assumed the only damageable freight to include only transportation equipment and primary metal products. [Note: To the extent that other commodity groups are damageable (i.e. food products, pulp, paper), our estimate will overstate the rail damage rate and, in turn, understate the public benefit.] The rail damage rate was determined to be \$1.33/ton.

The difference between these damage rates (\$.67/ton) was then applied to the total diversion tons, yielding a total damage cost.

Third, we subtracted the economic cost of shipping the diversion freight by rail (Step 3) from the economic cost of shipping the diversion freight by truck (Step 4) and calculated the total economic savings opportunity. Utilizing the above methodology, we estimated the total savings opportunity to be \$166 million.

F.) Appendix F: Calculation of Benefits from Highway Wear Reduction

To calculate the overall highway wear reduction from diverting freight from our highways, we determined an "average" truck, assessed that truck's net damage rate to the highways, and applied that rate to the total diversion truck-miles. To undergo this calculation, we followed a 5-step process:

First, before we could understand the impact of diverting trucks from our highway system, we had to determine exactly what types of trucks currently travel on the highways. Using the

^{xxix} The average claim/revenue was \$.01. This was multiplied by the total motor carrier revenues (362 billion) and divided by total motor carrier tons (5.5 billion), yielding freight claims of \$.66/ton.

1992 Census of Transportation, Truck Inventory and Use Study, we were able to determine the usage breakdown by equipment type.^{xxx} Figure F1 shows our findings.

Figure F1:

Equipment Type	Percent Usage Breakdown
Conventional Semi-Trailer, 5-axle	45.2%
Single Unit, 2-axle	43.7%
Conventional Semi-Trailer, 4-axle	3.8%
Truck Trailer, 4-axle	2.8%
Double Semi-Trailer, 5-axle	2.5%
Double Semi-Trailer, 6-axle	0.8%
Truck Trailer, 5-axle	0.5%
Conventional Semi-Trailer, 3-axle	0.5%
Single Unit, 3-axle	0.3%
Conventional Semi-Trailer, 6-axle	0.0%

^{xxx} Breakdown by truck miles for all traffic over 200 miles. Source: 1992 Census of Transportation, Truck Inventory and Use Study (TIUS). Pp. US-140,141.

Second, we determined net damage rate by truck type using estimates found in Road Work: A New Highway Pricing and Investment Policy.^{xxxix} To calculate the net damage rate, we determined:

1. *Damage cost per truck-mile for both urban and rural transit.* This included both damage to the highway itself and damage to subsequent highway users. [Note: See Figure F2 below for weight assumptions.]
2. *Contribution per truck-mile to the highway system for both urban and rural transit.* This included fuel taxes, registration fees, and other taxes.
3. *Net highway damage per truck-mile for both urban and rural transit.* This was determined by subtracting truck contributions per truck-mile (Step 2) from damage cost per truck-mile (Step 1).

Weighted average net damage per truck-mile. This was calculated by combining rural and urban net highway damage rates per truck-mile (from Step 3) -- by assuming a given shipment travels 90% on rural highways and 10% on urban highways. As our findings indicate in Figure F2 below, because highway damage increases with the cube of axle weight,^{xxxii} the damage caused by a given truck can vary drastically depending on its specific type, weight, and configuration.

^{xxxix} Small, et al. Pp. 45-46.

^{xxxii} Small, et al. Pg. 11.

Figure F2:

Equipment Type	Gross Weight Assumption	Weighted Average Net Damage per Mile (cents)
Conventional Semi-Trailer, 5-axle	80,000	12.0
Single Unit, 2-axle	33,000	7.6
Conventional Semi-Trailer, 4-axle	80,000	36.9
Truck Trailer, 4-axle	80,000	39.1
Double Semi-Trailer, 5-axle	80,000	12.9
Double Semi-Trailer, 6-axle	80,000	5.8
Truck Trailer, 5-axle	80,000	11.3
Conventional Semi-Trailer, 3-axle	80,000	83.6
Single Unit, 3-axle	33,000	-1.4
Conventional Semi-Trailer, 6-axle	80,000	5.0

Third, we calculated the net damage rate of an "average" truck-mile by weighting the weighted average net damage rates for each equipment type (shown above in Figure F2) by the percent usage of that equipment type (shown in Figure F1). This yielded a weighted average net damage rate for an "average" truck-mile equal to \$.12/mile. [Note: If we assumed all freight was diverted from conventional 5-axle semi-trailers, the analysis would yield the same \$.12/mile result.]

Fourth, we calculated truck-miles avoided due to diversions in each Conrail-CSX interline lane by converting the short-term carload and intermodal ton diversions into truckload quantities and multiplying them by the specific lane lengths-of-haul.

Finally, we calculated the net damage reduction by lane by multiplying the weighted average net damage rate per "average" truck-mile (\$.12/mile) by the truck-miles (calculated in Step 4). Summing these results yielded the \$50 million highway damage reduction presented in the main body of this text.

VERIFICATION

Darius W. Gaskins, Jr., being duly sworn, deposes and says that he has read the foregoing statement and that the contents thereof are true and correct to the best of his knowledge and belief.

Darius W. Gaskins, Jr.
Darius W. Gaskins, Jr.

Subscribed and sworn to before me the 2nd day of
June, 1997.

Suzanne M. Gaskins
Notary Public
Commission expires: 6/21/02

VERIFICATION

Darius W. Gaskins, Jr., being duly sworn, deposes and says that he has read the foregoing statement and that the contents thereof are true and correct to the best of his knowledge and belief.

Darius W. Gaskins, Jr.
Darius W. Gaskins, Jr.

Subscribed and sworn to before me the 2nd day of
June, 1997.

Elizabeth M. Johnson
Notary Public
Commission expires: 6/31/02

**BEFORE THE
SURFACE TRANSPORTATION BOARD**

FINANCE DOCKET NO. 33388

**CSX CORPORATION AND CSX TRANSPORTATION, INC. AND
NORFOLK SOUTHERN CORPORATION AND
NORFOLK SOUTHERN RAILWAY COMPANY
--CONTROL AND OPERATING LEASES/AGREEMENTS--
CONRAIL INC. AND CONSOLIDATED RAIL CORPORATION**

VERIFIED STATEMENT OF WILLIAM M. HART

**VERIFIED STATEMENT
OF
WILLIAM M. HART -- CORPORATE DEVELOPMENT
CSX TRANSPORTATION**

I'm William M. Hart, Vice President of Corporate Development for CSX Transportation, Inc. The transportation industry has been my career, one that began with my first railroad job as a brakeman on the B&O railroad. In all, I have spent 23 years of my transportation career with CSX.

After my graduation from Villanova University, I was accepted into the company's management trainee program in 1966. I held a series of operating and planning assignments with the railroad until 1972, when I joined the management consulting firm of Booz, Allen and Hamilton. In my ten years with Booz Allen, I worked on numerous transportation projects, including consulting for governments and private industry in the United States, Taiwan, Thailand, Korea and Venezuela.

I returned to the rail industry when I rejoined CSX in 1982, continuing a transportation career focused on rail operations and planning. Several leadership assignments in field operations, locomotive repair and network service design provided me with a broad-based understanding of how a railroad works.

My planning assignments included: organizational design and implementation of projects to build an internal capability to run a scheduled railroad; strategic planning studies focused on future threats and opportunities; and market segmentation work to identify how to satisfy customers and deliver economically viable service products.

I have been involved in most of CSX's work related to U.S. rail industry restructuring since the mid-1980's, including the policy/strategy issues surrounding the privatization of Conrail.

The Logic of the Joint Acquisition

My CSX colleague, John Anderson, is Executive Vice President, Sales and Marketing; yet he often describes his marketing responsibilities in operational terms. In each of my operational and planning assignments, my overriding concern has been to make our service as attractive as possible to our customers. Today, every task within CSX converges toward this single goal -- providing the best service.

This is a departure from the railroad industry of the past. Before deregulation, the major freight railroads were declining in revenue, performance and customer satisfaction. The Staggers Act freed freight rail companies to aggressively renew themselves. Rail has gone from being an industry in sharp decline to one that routinely achieves growth in revenues and profitability, with a powerful focus on attracting new customers with improved service performance.

We've transformed CSX by adhering to a handful of simple core management principles. We resolved to be the best. We learned to love the customer. We cut costs, while rewarding employee performance. In short, we lost the old regulated industry mentality.

The results speak for themselves. In terms of [revenue] and profitability, we've achieved five record years in a row. CSXT is number one in rail train safety and a leader in reducing personal injuries. We've improved our on-time train departures and right car/right train movements to better than 90 percent. We've become more efficient, cutting costs by more than \$500 million. Our operating ratio and costs have steadily declined from 85 percent to [77.9] percent. And as we improved, we grew our market. CSX has made almost \$10 billion in capital improvements since the passage of the Staggers Act. Our customers recognize that CSX is becoming better, leaner, and more productive. NS has made similar strides.

Clearly, the consequences of the Staggers Act are being fully realized. Freight rail, once seen as an industrial dinosaur heading toward eventual extinction, has successfully reinvented itself. By integrating new technologies into our operations, the freight rail of the 21st Century is evolving into a flexible, agile, vigorous competitor with other modes of transportation.

But our efforts at continuous improvement stop are constrained by the limitation of our routes. At a time when our customer base is seeking to reduce the number of carriers handling their freight, when the customer base is frustrated by

railroads paying less attention to interline freight in which one railroad has a shorter haul, and where the ability to win market share from trucks requires seamless service - the logical solution for CSX was to focus on Conrail -- our largest interline partner.

Both CSX and NS are ready to extend the benefits of a larger network to a larger customer base. This is the right time to consolidate these routes. In my 23-year railroad career, I've watched consolidations and mergers yield vast improvements in operational efficiencies and customer service. This acquisition has the virtue of extending the national trend toward consolidation, but with three significant differences:

- 1) This is a joint acquisition, one that will leave two balanced Class I railroads.
- 2) The division effected breaks the rail monopoly in the Northeast.
- 3) The scale of this change offers an unprecedented opportunity to improve freight transportation in the Eastern United States when freight traffic is heavy, highways congested and the need for more competitive freight rail obvious. When this deal is done, it will signal a new era of competition and continuous improvement -- not just in freight rail -- but in the entire freight transportation sector.

As a consequence of this joint acquisition, the Eastern rail network will emerge with two financially strong Class I carriers of equal size, scope, and traffic mix. Each will have two routes into Chicago, and two routes to the Northeast. Many rail

shippers will find new service options, and all rail shippers served by CSX or NS will see improved single-line service and more cost-efficient railworks.

There will be some who will inevitably ask which of the successor railroads will emerge from this Transaction as the winner. That's the wrong question. Both railroads will acquire enough of Conrail to be evenly matched competitors. The real winners will be our customers.

The Equitable Division of Conrail's Routes

Conrail's main route structure resembles an "X" set on its side, with four legs terminating at Chicago, Philadelphia, St. Louis and New York. The legs cross at Cleveland. Simply put, CSX and NS agreed to split the "X," dividing Conrail's economic value and complementing their existing routes.

CSX owns the old Baltimore & Ohio line that parallels Conrail's former Pennsylvania Route between Cleveland and Philadelphia. As a consequence, NS was allocated the former Pennsylvania line from Cleveland to Philadelphia and New York. Since this division gives NS a strong route to the New York/New Jersey area, it follows that Conrail's former New York Central Route (sometimes referred to as the Water Level Route) would be allocated to CSX. The remaining path to New York via its southern tier (Buffalo to Binghamton to New York) went to NS. Both CSX and NS will have a primary and a secondary route into New York, preserving balanced competition.

A concern with an even split also governed the division of the Western ends of the "X." CSX has a premier route to Chicago in its B&O route across Northern Ohio and Indiana. It also owns a more circuitous route to St. Louis than the NS or Conrail routes. Thus the Conrail line that goes to Chicago from Cleveland was allocated to NS, while the Conrail line to St. Louis went to CSX. Strong routes were allocated equally, dividing the commercial value of Conrail between the two acquiring companies.

In most cases, secondary lines were allocated based on their connectivity to the "X." For example, Conrail's Syracuse to Montreal line, and Albany to Boston line, connect only to the former New York Central Water Level Route being allocated to CSX. These lines fit the CSX network. Remaining Conrail lines were divided to preserve an equitable split between the two carriers, to preserve competition, and to create a minimal number of 2-to-1 customers. Since CSX and Conrail both have routes between Columbus and Cincinnati, Columbus and Charleston, and Detroit to Chicago, to avoid duplication and market concentration these Conrail lines were allocated to NS.

Some Conrail lines did not clearly belong with one carrier or the other. Negotiations led us to a variety of arrangements detailed in this Application.

New Issues Arise - Our Solution

The allocation of Conrail routes between CSX and NS will better serve our customers. The new configuration, however, creates issues for some customers and for other railroads. These following issues are addressed in this report.

- CSX and NS agreed not to use any future changes in ownership or control of any of the intermediate switching carriers in the Chicago terminal as an opening to undermine each other's ability to compete. This agreement sets the stage for vigorous, balanced competition from Chicago to the Northeast.
- This transaction will result in a few 2-to-1 customers. Both CSX and NS are committed to the proposition that no customer should suffer from the elimination of meaningful competition. We will work with these few 2-to-1 customers to preserve their options.
- This joint acquisition will impact carriers. It will strengthen most carriers by connecting them into a larger, more efficient network. A handful will feel negative impacts.

Ensuring Good Service In and Out of Chicago

The line allocation previously described resulted in an equitable division of routes from the East to and through Chicago.

For NS:

- Cleveland, Elkhart, Chicago (west end of the Water Level Route).
- Cleveland to Chicago (the former Nickel Plate route).

For CSXT:

- **Cleveland, Crestline, Fort Wayne, Chicago (west end of PRR route owned by NS and CR).**
- **Willard to Chicago (the B&O) line.**

CSX and NS will achieve competitively adequate, balanced access to and through Chicago with respect to the lines allocated and the facilities of the Chicago switching railroads.

The balanced competition between CSX and NS will enjoy a safeguard: The Chicago Area Agreement (a Schedule to the Transaction Agreement) is designed to prevent either CSX or NS from attempting to exercise disproportionate market power over these Chicago movements. The agreement maintains competition by distributing the pattern of access to the Chicago customers and gateways. With the rights CSX is to obtain under the IHB Agreement, a fair balance of access to the switching railroads and through Chicago will be achieved. The switching railroads in question stand in a strategic position, controlling a narrow passage through which rail operations to, and through, Chicago must be conducted. Changes in control over one or more of these switching roads should not be permitted to disturb the benefits of robust competition, a disturbance that would be felt from the Atlantic and Chesapeake Bay ports to the West. By safeguarding that robust competition, the Chicago Area Agreement supports

better service to the public and is procompetitive and in no real sense anticompetitive.

Certainly there is no lack of competitive Class I or major regional rail carriers serving Chicago, and connecting with one or more of the Chicago switching carriers: the IHB, the BRC, the CSS & SF and the BOCT. They include BNSF, UP, IC, KCS, CP/500, CN/GTW and Wisconsin Central. While the arrangements between CSX and NS might prevent the two of them from bidding against each other for control of any of the Chicago-area switching railroads, there is an ample number of potential bidders.

Additionally, the Chicago Area Agreement provides CSX with an option to purchase the "Streator" Line. This option would become effective if CSX and BNSF came under common control. No discussions of any such transaction are currently in progress, but in the present rail environment, CSX believes that it must be prepared for the possibility of transcontinental rail combinations.

The transfer of the Streator Line, which runs from Hick, IN to Osborn to Streator, Illinois, would provide a useful route between the CSX line from Porter to Gibson to Streator, and the BNSF line from Streator to Galesburg and the West. Under the present transaction, CSX will have trackage rights from Chicago to Streator. The consideration upon any exercise of the option would be fair value, as determined by the parties by agreement or through an arbitration process. Of course, any combination of CSX and BNSF, and the transfer of the Streator Line upon exercise of

the option, would be subject to all regulatory approvals provided for by statute at the time in question.

Two-to-One Customers

CSX will ensure that shippers who today have two railroad service options will continue to be served by two railroads after the division of Conrail. My testimony is limited to those "2-to-1" industries created by the CSX operation of Conrail lines. Mr. McClellan of NS will address these "2-to-1 shippers" resulting from NS's operation of Conrail lines.

In railroad consolidations, the STB (like the ICC before it) is concerned about preserving competitive rail options for shippers. The focus of the examination has been on shippers who were served only by the two merging railroads, and stood to lose a competitive alternative as a result of the consolidations. (Hence the term, "2 to 1.") A shipper is defined as a 2-to-1 if either (1) Two railroad lines physically enter its facility and those lines would be under common ownership after the transaction, or (2) A railroad's line physically reaches its facility, but the shipper has a second switching service option with a second rail carrier through reciprocal switching, trackage rights or haulage.

Under my direction, CSX worked with Conrail to conduct a study to identify those shippers who will become "2-to-1." This study relied upon the electronic data

base of open and prepay stations, and the IRF Road junction files to identify those stations served only by Conrail and CSX. We examined CSX and Conrail switching tariffs to determine shippers at those stations who were open to switching. We also examined CSX and Conrail 100-percent traffic files to gauge the size of the volumes of traffic actually handled for the accounts of those shippers.

In a separate study, we determined that no shortline railroad that today connects to only CSX and Conrail would be left with only a single Class I connection after the transaction.

That this transaction involves the creation of far fewer 2-to-1's than recent mergers is not happenstance. We identified only 83 active shippers who fit into the 2-to-1 category, limited to a few locations in Ohio and Indiana. These shippers represent less than seven-tenths of one percent of the combined revenues for Conrail and CSX in 1995.

Indianapolis

NS will have trackage rights from two directions to serve Indianapolis customers. Traffic volumes are expected to be high enough to support train operations by NS from the first day of the acquisition.

There are 66 shippers located on Conrail lines that have traditionally had a second service option available to them through reciprocal switching service. To address these situations, CSX will grant Norfolk Southern overhead trackage rights

from Muncie, IN and from Lafayette, IN to Hawthorne Yard in Indianapolis (to be operated by CSX). Under the terms of a joint facilities agreement, CSX will pick up and deliver cars at 2-to-1 customers' sidings in Indianapolis, and will receive and deliver cars to and from NS at Hawthorne Yard.

NS will also be able to interchange with the Indiana Railroad (INRD) and serve the General Motors metal fabrication plant at Indianapolis. The primary rail movement from that fabrication plant is to another General Motors facility at Roanoke, Indiana, on NS. This arrangement will give the customer an efficient, single-line route on a comparatively short haul.

We worked together to ensure that the 2-to-1 customers at Indianapolis receive the same rail service benefits that they enjoyed prior to the transaction. The costs of NS (including both trackage rights fees of 29 cents per car mile and pick-up delivery fees to CSX) will enable it to aggressively market traffic to and from Indianapolis, using the combination of trackage rights and CSX pick-up and delivery services.

Crawfordsville, Indiana

The seven 2-to-1 customers at this Indiana station will be served by CSX directly; and by NS through trackage rights or haulage between Lafayette and Crawfordsville.

Sidney, Ohio

The six 2-to-1 shippers at Sidney, Ohio, will be served by CSX directly; and by NS through haulage or trackage rights between Lima and Sidney.

Upper Sandusky, Ohio

There are four 2-to-1 shippers at Upper Sandusky on the Ft. Wayne line that will be operated by CSX after the transaction. NS is being granted trackage rights on the Ft. Wayne line between Crestline and Chicago and will be given the right to serve the 2-to-1 shippers at Upper Sandusky. NS can elect to pick up or set off in conjunction with a CSX switch, or utilize CSX haulage to the CSX-NS interchanges at Lima.

We have restructured the 2-to-1 arrangements according to customary industry terms and practices for trackage rights, operating haulage arrangements and joint facilities agreements. These arrangements ensure that the owner receives compensation to cover costs. We have done this to eliminate any controversy over 2-to-1 issues and to ensure that this transaction is, unquestionably, the most procompetitive control case ever submitted to the STB.

Our study of 2-to-1 shipper was rigorous. We believe we have identified and addressed every such situation. However, if any shipper should come forward and demonstrate a need that we missed, CSX stands ready to address that shippers' concerns.

Impacts on Other Carriers

A transaction of this magnitude will obviously have some effect on rail carriers other than CSX, NS and Conrail. One reason we are undertaking this transaction is to improve our competitive position vis-a-vis other railroads. By creating more efficient routes, CSX will enjoy extended hauls on some traffic that it currently handles. Some traffic that now moves entirely on other railroads will be diverted to the new CSX system.

We asked ALK Associates to estimate diversions from other carriers on general merchandise traffic and on those movements of coal, coke and iron ore that were not studied by our coal marketing department. The results of those estimates are presented in the verified statement of Howard Rosen. Certain coal traffic, automotive traffic and rail intermodal traffic was studied separately by internal CSX marketing personnel. The results of their studies do not indicate impacts on any carriers other than NS.

I have reviewed the results but have not studied them in detail to verify their accuracy. As the Board knows, there are inherent limitations in using the waybill sample when assessing the diversion impacts of a transaction on smaller carriers. This limitation is a "small numbers" problem. Depending how many and which records are captured in the waybill sample, the diversion impacts predicted by the ALK diversion model can be significantly overstated or understated. And while the ALK model is a useful tool for predicting traffic flows, there are aspects of commercial arrangements, such as the existence of contracts, which it does not observe.

In addition to reviewing the ALK estimates, I have considered the likely impacts of the transaction on other rail carriers, based on our knowledge of the industry and the commercial situations of the carriers involved. It is my judgment that the vast majority of other carriers will not experience significant adverse revenue impacts from this Transaction. In fact, some carriers will realize traffic gains. There are, however, four smaller railroads I am aware of that could experience what they would deem to be significant traffic losses as a result of the transaction. These are the New York, Susquehanna & Western, the Buffalo & Pittsburgh, the Chicago South Shore and South Bend, and the Louisville and Indiana.

We are in touch with these carriers to discuss with them the effects of any adverse revenue impacts and possible ameliorative arrangements. I am not in a position at this time to say whether such arrangements would be justified or whether any of these carriers' situations might ultimately result in the loss of essential rail services, warranting their inclusion in this transaction.

Conclusion

This transaction will result in single-line service, greater efficiencies and yield the fruits of competition between two balanced, Class I freight railroads. By ensuring that both CSX and NS have adequate and competitively balanced access to Chicago, the two railroads will preserve competition throughout the East.

We identified 2-to-1 customers and remain committed to preserving competition for them. And we believe that this birth of this new Eastern rail network is a benefit for the rail industry as a whole strengthening most other rail carriers by connecting them into a more efficient system.

I believe that when this transaction is fulfilled, it will be second only to the Staggers Act in bringing tremendous new freight rail benefits to the public.

VERIFICATION

I, William M. Hart, declare under penalty of perjury that the foregoing is true and correct. Further, I certify that I am qualified and authorized to file this verified statement. Executed on the 12 day of June, 1997.



William M. Hart

VERIFICATION

I, William M. Hart, declare under penalty of perjury that the foregoing is true and correct. Further, I certify that I am qualified and authorized to file this verified statement. Executed on the 12 day of June, 1997.


William M. Hart

**BEFORE THE
UNITED STATES SURFACE TRANSPORTATION BOARD**

Finance Docket No. 33389

**CSX CORPORATION
AND CSX TRANSPORTATION, INC.,
NORFOLK SOUTHERN CORPORATION
AND NORFOLK SOUTHERN RAILWAY COMPANY
-- CONTROL AND OPERATING LEASES/AGREEMENTS --
CONRAIL INC.
AND CONSOLIDATED RAIL CORPORATION**

**VERIFIED STATEMENT OF
HOWARD A. ROSEN**

**ALK Associates, Inc.
1000 Herrontown Road
Princeton, NJ 08540
(609) 683-0220**

**VERIFIED STATEMENT OF
HOWARD A. ROSEN**

1. Introduction

My name is Howard Alan Rosen. I am Vice President of ALK Associates, Inc. (ALK), a transportation consulting and systems development firm located in Princeton, New Jersey. I have been associated with the firm since May 1981. I have sixteen years of experience in conducting railroad traffic studies, including the Union Pacific-Southern Pacific merger, Burlington Northern-Santa Fe merger, Union Pacific acquisition of the Chicago and North Western Transportation Co., Union Pacific acquisition of the Missouri-Kansas-Texas railroad, Norfolk Southern acquisition of Illinois Central Gulf's Birmingham-Centralia line, and Norfolk Southern's attempted acquisition of Conrail in 1985. I earned a B.S.E. in Civil Engineering from Princeton University, with a concentration in transportation studies, and an M.B.A. from the Wharton School at the University of Pennsylvania.

ALK Associates has developed a set of network and traffic databases, traffic flow models, and traffic diversion methodologies that are widely used in the railroad industry. The United States Surface Transportation Board (STB) and its predecessor, the Interstate Commerce Commission (ICC), has contracted with ALK since 1979 to collect and process the annual STB Waybill Sample. ALK maintains a detailed database representation of the North American railroad network. This database is used in processing the STB Waybill Sample and in several licensed ALK products. ALK's PC*Rail® product generates routes and mileages over the North American railroad network. It is currently licensed to over 100 railroads, shippers, and car lessors. ALK's Princeton Transportation Network Model and Graphic Information System

(PTNM/GIS™) combines the features of PC*Rail with traffic flow capabilities. The PTNM/GIS is used for a variety of strategic planning, costing, marketing, and operations planning applications. It is currently licensed to four of the five largest U.S. railroads. ALK's principal traffic diversion methodology, the Advanced Traffic Diversion Model (ATD), has been used to study virtually all the major railroad mergers, line acquisitions, and other rail restructurings of the past two decades. Within the past three years, four of the seven largest U.S. railroads engaged ALK to apply the ATD to study railroad restructuring scenarios.

During my career at ALK, I have personally directed dozens of railroad traffic diversion studies. I have designed and implemented railroad operations management systems, including locomotive management systems at three large North American railroads. One of these, the Locomotive Distribution System, was the recipient of the 1993 Progressive Railroading Award for Management Techniques and Practices. I have also designed and implemented simulation models for developing railroad operating plans. Through this work I have gained an in-depth knowledge of railroad marketing and operating functions. A resume detailing my experience and professional activities is attached to this statement as Appendix I.

This statement will present the methodology and results of three traffic studies performed by ALK under my direction. The first study, hereinafter referred to as the "Waybill Sample Study", allocated Conrail's 1995 traffic between CSX and NS based on the 1995 STB Waybill Sample supplemented with Conrail waybills for 1995 movements terminated in Canada. This study encompassed traffic of all types. It was undertaken on behalf of CSX Transportation (CSX) and Norfolk Southern (NS).

The second study, hereinafter referred to as the "General Merchandise Study", estimated diversions and extended hauls to and from CSX for general merchandise traffic. This study was based on a composite traffic file compiled from Conrail's 1995 revenue waybill

file, CSX's 1995 revenue waybill file, NS's 1995 revenue waybill file (for movements terminated in Canada with NS participation), and the 1995 STB Waybill Sample. This study was undertaken on behalf of CSX.

The third study, hereinafter referred to as the "CCIO Remainder Study", estimated diversions and extended hauls to and from CSX for coal, coke and iron ore (CCIO) traffic moving in markets that were not studied separately by CSX's coal department. The CCIO Remainder Study used a composite traffic file compiled from the same sources as the traffic file used in the General Merchandise Study. The CCIO Remainder Study was undertaken on behalf of CSX. CCIO traffic studied by CSX's coal department is addressed in a statement submitted on behalf of CSX by Raymond Sharp.

The last additional segment of carload traffic, assembled autos moving in multi-level rail cars, is addressed in a statement submitted on behalf of CSX by Dale Hawk.

2. Assumptions Common to All Studies

This section presents assumptions common to all three traffic studies conducted by ALK. Assumptions particular to an individual study are presented later in sections devoted to the details of each study.

1. CSX and its acquired Conrail lines will operate as a single-line system. NS and its acquired lines will operate as a single-line system.
2. Joint terminal companies will operate as extensions to the CSX and NS systems as if they were an integrated part of each system.
3. CSX and NS will acquire and integrate their portions of Conrail simultaneously and concurrently.

4. Gateways for joint rate traffic between Conrail, CSX and NS on the one hand and other carriers on the other hand that were open in 1995 will remain open after the transaction. Three new gateways will be opened as a result of the transaction: between NS and Union Pacific (UP) at Sidney, IL; between NE and Canadian Pacific (CP) at Harrisburg, PA; and between CSX and NS at Oak Island Yard (Newark), NJ. Traffic between the Official rate territory (roughly the area east of the Mississippi River and north of the Ohio and Potomac Rivers) and the Western rate territory (roughly the area west of the Mississippi River) will remain at 1995 gateways or move through Sidney, IL. The 1995 gateways are primarily Chicago and St. Louis. Eastern carriers will not, as a consequence of this transaction, extend their haul on this traffic by re-routing it through the Southern rate territory (roughly the area east of the Mississippi River and south of the Ohio and Potomac Rivers) to gateways at Memphis and New Orleans.
5. Any railroad serving a station assigned to a six-digit Standard Point Location Code (SPLC) has access to all shippers and consignees at all stations assigned to that SPLC, except for known locations where shippers and consignees of one railroad cannot be accessed by another railroad. For SPLCs where a terminal company or shortline railroad provides switching service, any railroad served by the switching carrier at that SPLC may compete to originate and terminate carload traffic at the stations assigned to the SPLC.
6. Traffic will be assigned to a new route due to the transaction only if Conrail participated in the pre-transaction route, or the post-transaction route uses a line that was a part of Conrail.
7. Study results are estimates of traffic volumes at the end of the third year following approval of the transaction. Connections, line upgrades and capital projects

proposed by CSX and NS at the time the studies were initiated are assumed to be completed.

8. Post-transaction routes assume that mergers and railroad industry transactions that occurred during 1995 and 1996 are fully implemented. Specifically, post-transaction routes assume that Union Pacific, Southern Pacific and Chicago and North Western are a single system, including concessions granted in STB proceedings; that Burlington Northern and Santa Fe are a single system, including concessions granted in STB proceedings; that Kansas City Southern and Texas-Mexican are a single system, including concessions granted in STB proceedings; and that Illinois Central and Chicago, Central and Pacific are a single system.
9. As part of each study, the base traffic files were adjusted to reflect the effects of Conrail line sales and divestitures completed during 1995, 1996 and early 1997. The base traffic files were not adjusted for other mergers and railroad industry transactions that occurred during and since 1995. Specifically, the base traffic files were not adjusted to reflect the effects of the Union Pacific-Southern Pacific merger, the Burlington Northern-Santa Fe merger, Union Pacific's acquisition of Chicago and North Western, concessions granted to Kansas City Southern and Texas-Mexican in various STB proceedings, or Illinois Central's acquisition of the Chicago, Central and Pacific.
10. Base traffic files were not adjusted for changes since 1995 in origin-destination traffic patterns, growth or decline in traffic due to general economic conditions, or shifts between the rail mode and other modes of transportation.

3. Methodology Overview

This section presents an overview of the methodology used by ALK for all three Studies. Appendix II to this statement presents a detailed description of the methodology, including specific rules and the calibration of formulas used. Appendices III, IV and V present details particular to the application of the methodology for the Waybill Sample Study, the General Merchandise Study, and the CCIO Remainder Study, respectively.

ALK used its Advanced Traffic Diversion Model (ATD) to conduct these studies. Application of the ATD begins by extracting pertinent origin, destination and service type combinations from a traffic data set. ALK refers to these combinations as "markets". Market attributes include the number of carloads, trailers/containers, net tons, and revenue. ALK's use of the term "market" differs from an economist's use of this term, and ALK's use is not intended to suggest that an origin, destination and service type combination corresponds to a market as an economist would define it.

For each market ALK identifies the carriers serving the origin and the carriers serving the destination. ALK creates all pairs of origin carrier-destination carrier combinations. For example, if the origin is served by three carriers and the destination by two carriers, ALK creates six origin carrier-destination carrier combinations. Combinations that are unlikely to attract traffic, such as a carrier with local service participating in an inter-line service, are discarded.

For each surviving origin carrier-destination carrier combination in each market, ALK generates a post-transaction route. Routes unlikely to attract traffic, such as overly circuitous routes, are discarded. Market shares are estimated for surviving routes in each market using a conditional logit market share formula calibrated to the market shares observed in the 1995 Waybill Sample.

Traffic and revenue are assigned to post-transaction routes according to the market share calculated for each route, provided that the post-transaction route uses a line that was a part of Conrail, or a pre-transaction route involves Conrail and, hence, a new service for this traffic must be selected. These two provisions ensure that traffic allocations made by the ATD are linked to the proposed transaction. In cases where neither of these provisions is satisfied, pre-transaction routes and their relative market shares are preserved unchanged.

Finally, for post-transaction routes involving more than one carrier, ALK allocates route revenue among the participating carriers using a revenue allocation formula. This formula allocates revenue in proportion to each carrier's share of the route's mileage, constrained to provide a minimum share to each carrier, and extra shares for the origin and terminating carriers.

The ATD allocates rail traffic among competing services while holding constant the total traffic volume in a market. The ATD does not estimate market volume increases or decreases due to changes in origin-destination traffic patterns. It does not estimate traffic diversions to or from other modes of transportation.

4. Results of the Waybill Sample Study

The Waybill Sample Study was conducted to allocate Conrail's 1995 traffic movements to CSX and NS based on the division of lines and access to facilities agreed to by CSX and NS, including areas where CSX and NS will share assets. The Study determined post-transaction routes for Conrail's 1995 traffic. The Study results do not include diversions of non-Conrail participatory traffic to new CSX or NS services created by the transaction.

Results of the Waybill Sample Study include estimates of the 1995 Conrail revenue that CSX and NS will each capture, estimates of the revenue from other carriers that CSX and NS will capture (for example, from extended hauls on Conrail joint traffic with other carriers), estimates of the CSX revenue that NS will capture from Conrail-CSX joint traffic allocated to NS, and estimates of the NS revenue that CSX will capture from Conrail-NS joint traffic allocated to CSX.

The Study results include traffic files with Conrail's 1995 movements marked as allocated to CSX, allocated to NS, allocated to a new joint CSX-NS service or, in a small number of cases, allocated to another carrier. These files were used by CSX to allocate Conrail's 1995 revenues and costs for developing pro forma financial statements and for identifying incremental effects of the proposed transaction. I understand that NS made similar use of these files.

The Study is based on the 1995 STB Waybill Sample supplemented with waybills from Conrail's 1995 100% traffic tapes for movements terminated in Canada. The supplement was added because the Waybill Sample omits waybills terminated in Canada by Canadian railroads. This traffic was processed using ALK's ATD separately for four service types: intermodal, multi-levels (assembled autos), coal/bulk, and general merchandise. For this Study, the coal/bulk segment includes grain movements. Details on the traffic file used in this Study and the application of the ATD are presented in Appendix III.

Table 1 summarizes the revenue results of this Study for CSX. ALK estimates that Conrail's revenue for the traffic allocated to CSX is \$1,567 million. Based on CSX's post-transaction service for this traffic, ALK estimates that CSX will capture net incremental revenue of \$1,591 million. This amount includes most of the Conrail revenue for the traffic allocated to CSX. Table 2 summarizes the revenue effects of this Study for NS. ALK estimates that Conrail's revenue allocated to NS is \$2,040 million,

and that NS will capture net incremental revenue of \$2,051 million based on its post-transaction service for this traffic.

Figures 1 through 4 show traffic density maps of the Conrail traffic allocated to CSX as estimated to move on CSX post-transaction routes. There is one map for each service type: intermodal, multi-levels, coal/bulk, and general merchandise. Figures 5 through 8 show traffic density maps of the Conrail traffic allocated to NS as estimated to move on NS post-transaction routes. There is one map for each service type: intermodal, multi-levels, coal/bulk, and general merchandise.

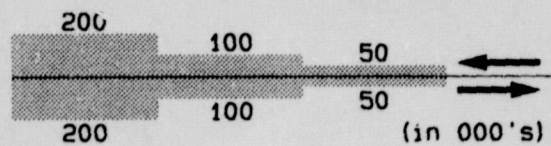
Table 1
Summary of Conrail Revenue Allocated to CSX
Waybill Sample Study
(Revenue in \$000)

				General	
	Intermodal	Multi-levels	Coal/Bulk	Merchandise	Total
Allocated Conrail Revenue, pre-transaction routes	\$292,924	\$199,541	\$301,772	\$772,816	\$1,567,053
Allocated Conrail Revenue, post-transaction routes	\$290,192	\$203,413	\$308,975	\$746,314	\$1,548,894
Allocated NS Revenue, post-transaction routes	\$5,086	\$4,527	\$365	\$25,118	\$35,096
Allocated Other Revenue, post-transaction routes	\$2,692	\$2,937	\$2,388	\$33,714	\$41,731
Lost CSX Revenue, post-transaction routes	(\$3,944)	(\$355)	(\$890)	(\$29,728)	(\$34,917)
Net Revenue, post transaction routes	\$294,026	\$210,522	\$310,838	\$775,418	\$1,590,804

Table 2
Summary of Conrail Revenue Allocated to NS
Waybill Sample Study
(Revenue in \$000)

				General	
	Intermodal	Multi-levels	Coal/Bulk	Merchandise	Total
Allocated Conrail Revenue, pre-transaction routes	\$284,496	\$95,441	\$573,745	\$1,085,975	\$2,039,657
Allocated Conrail Revenue, post-transaction routes	\$283,395	\$87,583	\$561,991	\$1,055,038	\$1,988,007
Allocated CSXT Revenue, post-transaction routes	\$3,944	\$355	\$890	\$29,728	\$34,917
Allocated Other Revenue, post-transaction routes	\$5,059	\$3,713	\$1,554	\$52,861	\$63,187
Lost NS Revenue, post-transaction routes	(\$5,086)	(\$4,527)	(\$365)	(\$25,118)	(\$35,096)
Net Revenue, post transaction routes	\$287,312	\$87,124	\$564,070	\$1,112,509	\$2,051,015

Conrail Traffic Allocated to CSX
Intermodal Trailers/Containers
1995 Waybill Sample



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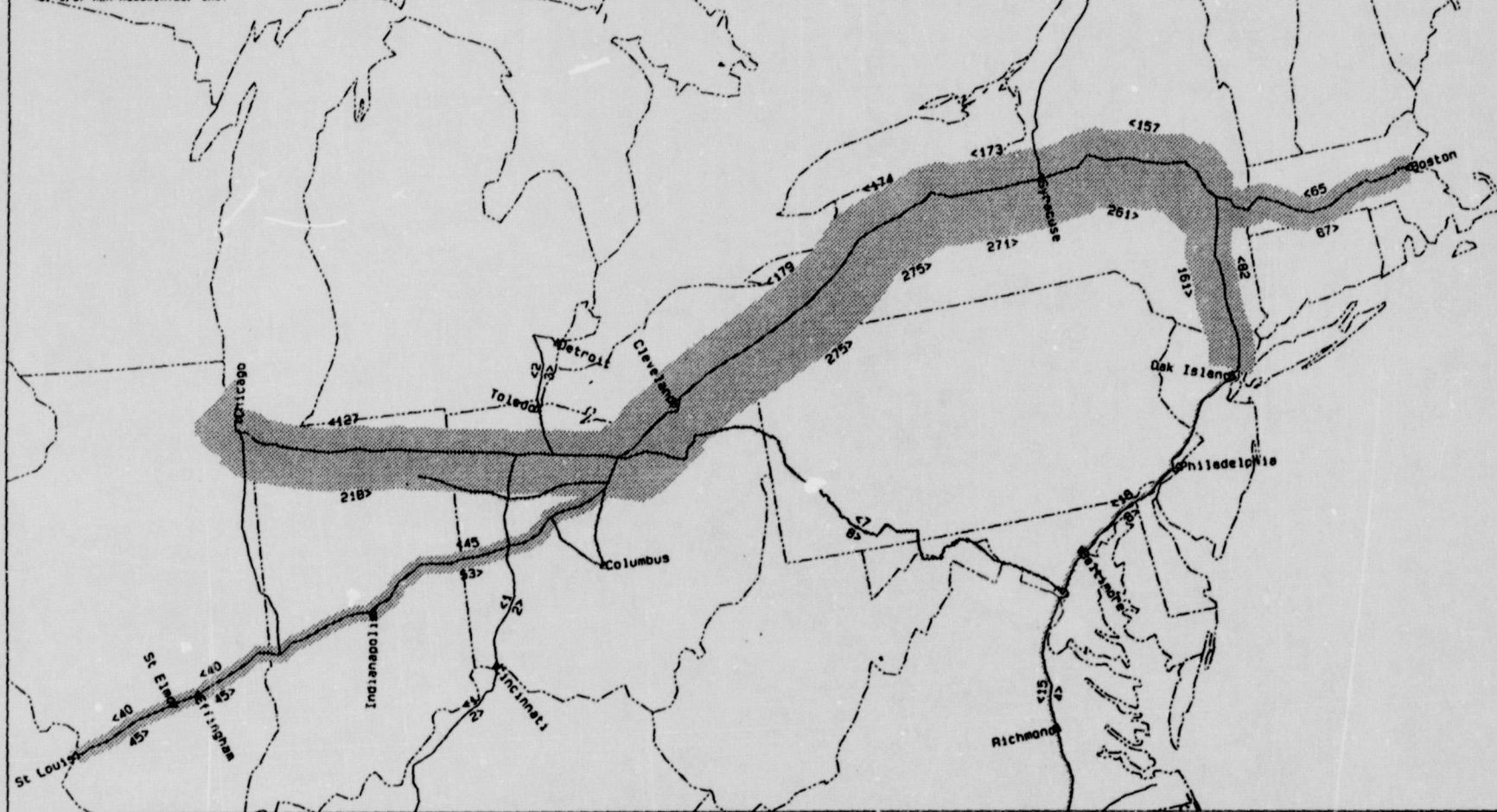
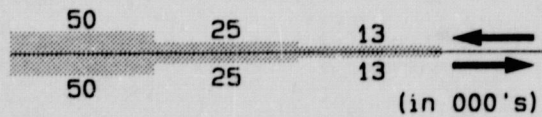


Figure 1

Conrail Traffic Allocated to CSX
Multi-level Carloads
1995 Waybill Sample



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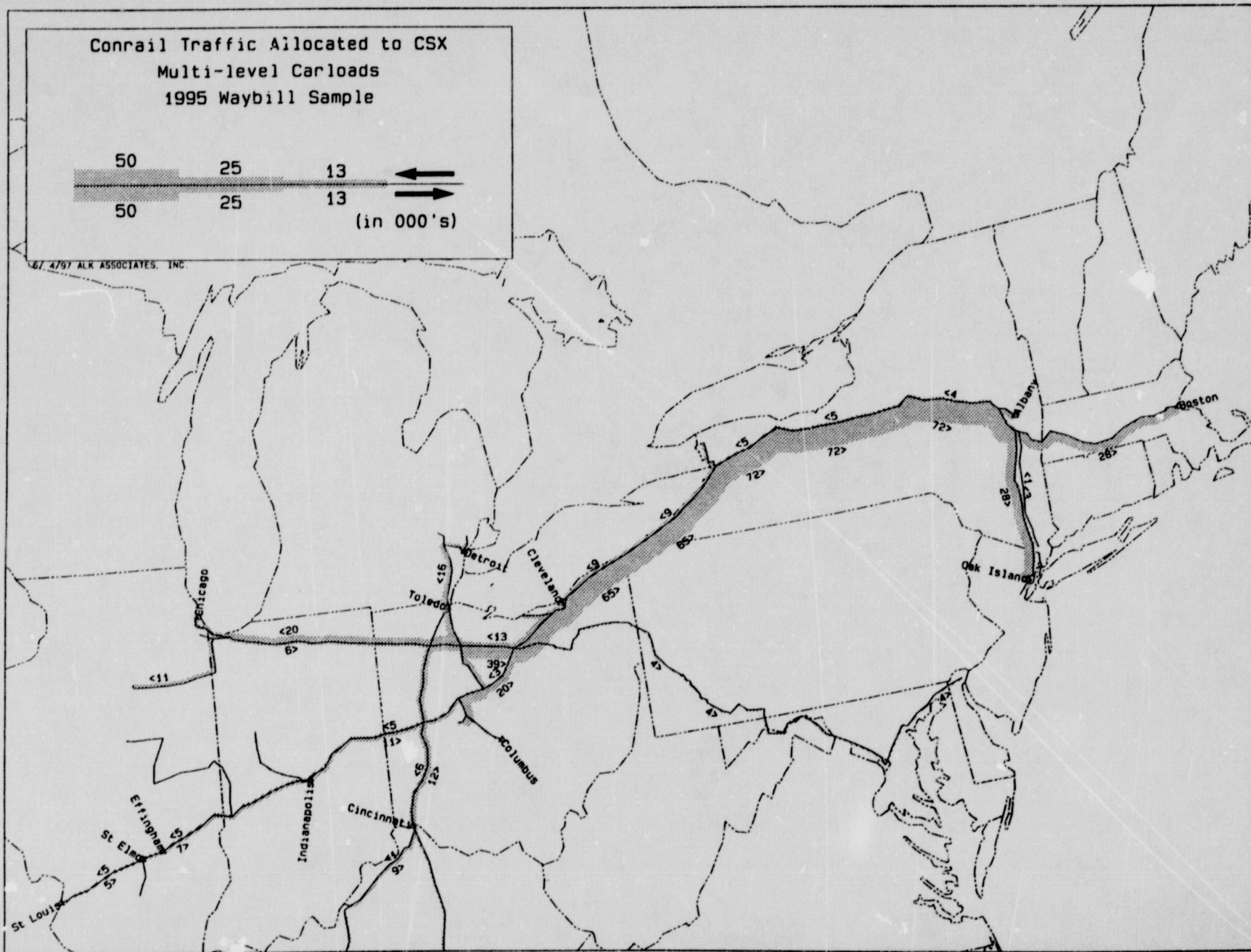


Figure 2

Figure 1 is a schematic diagram of a rectangular area, 1000' long and 100' wide. The area is divided into three sections by a horizontal line. The top section is labeled '100' on the left, '50' in the middle, and '25' on the right. The bottom section is labeled '100' on the left, '50' in the middle, and '25' on the right. Two arrows point towards the center from the right side, labeled '(in 000's)'.

6/ 4/97 ALK ASSOCIATES, INC

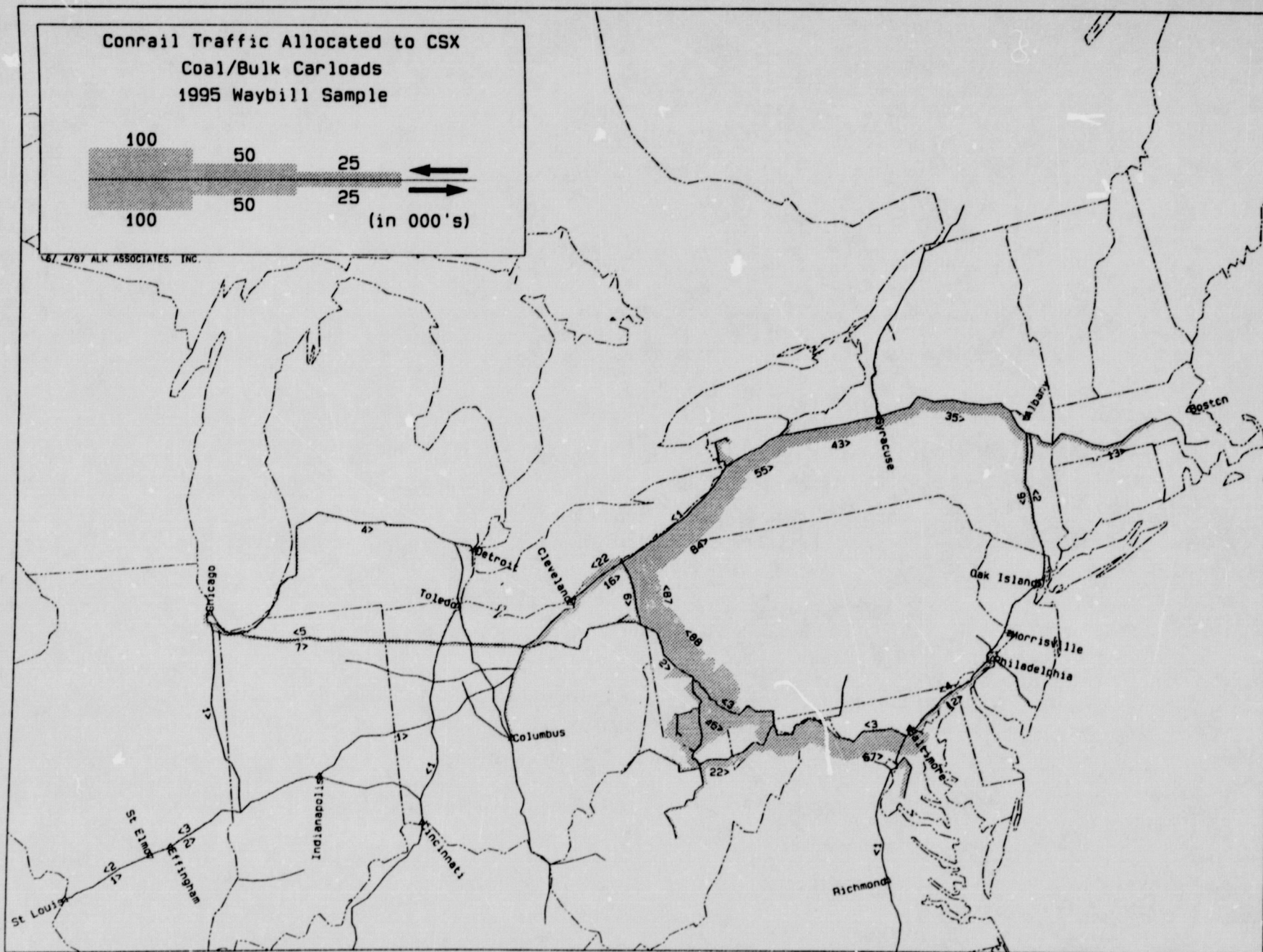
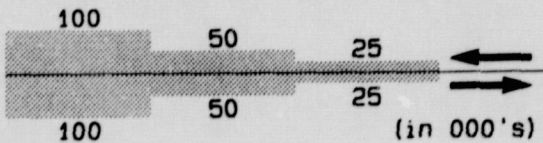


Figure 3

Conrail Traffic Allocated to CSX
General Merchandise Carloads
1995 Waybill Sample



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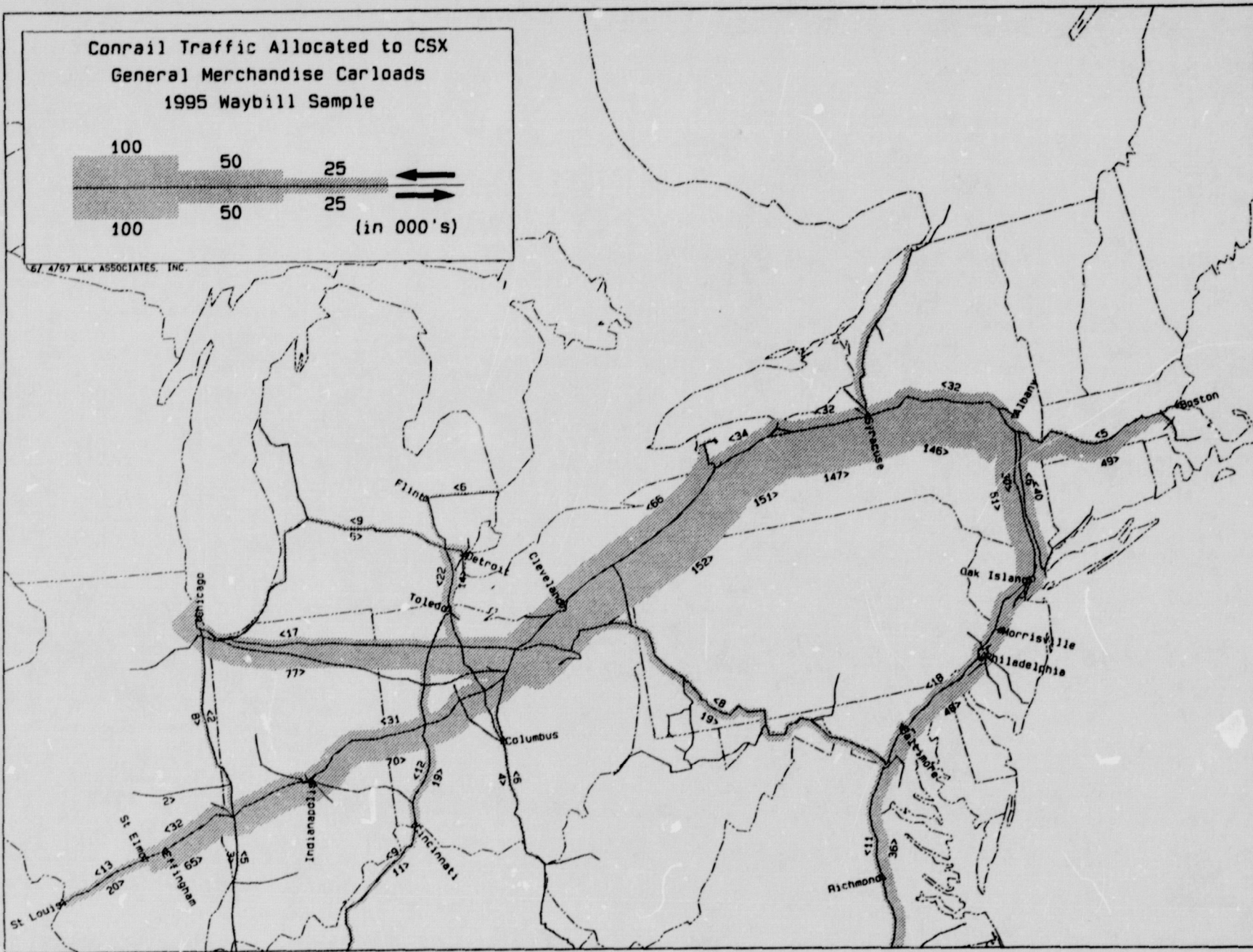


Figure 4

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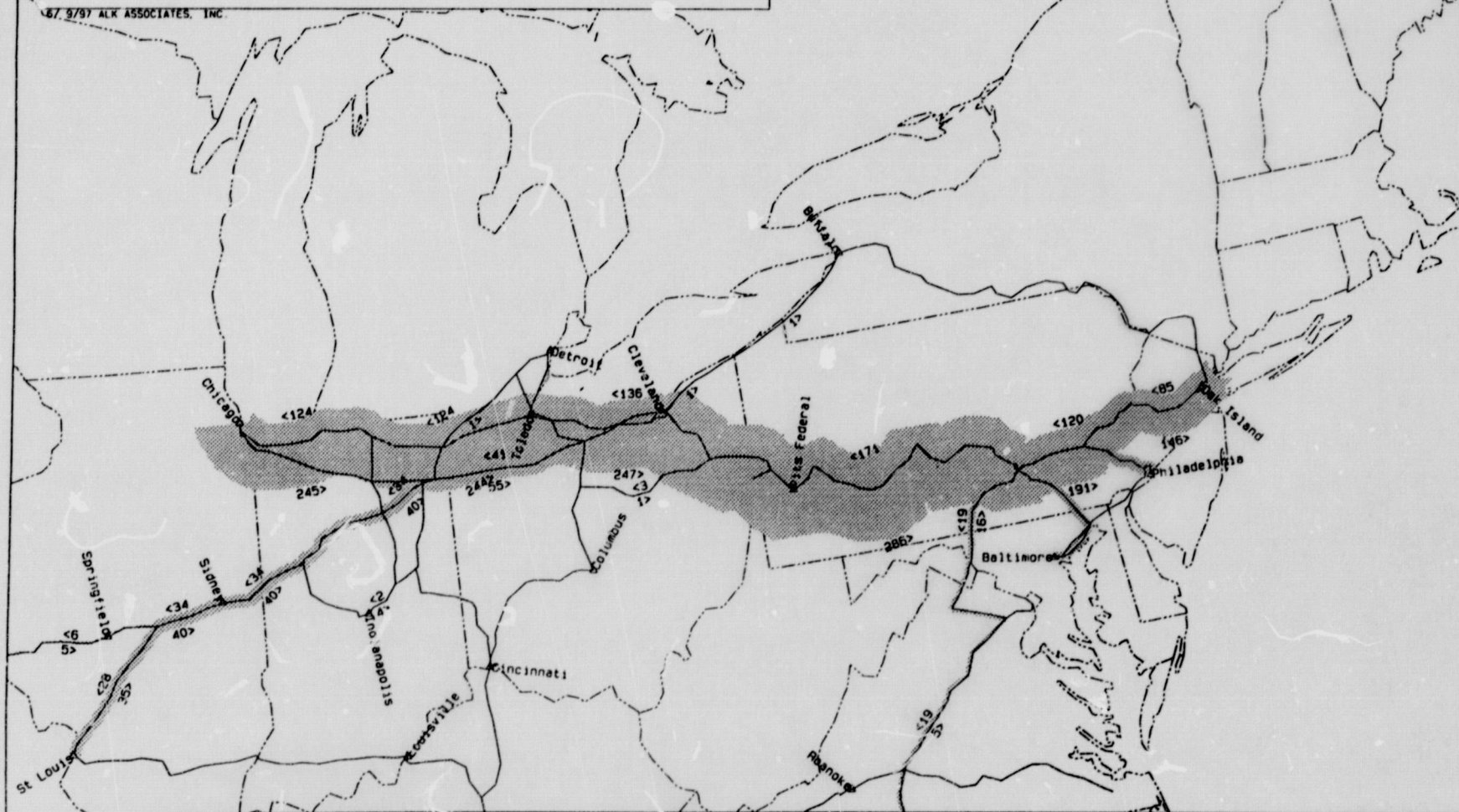
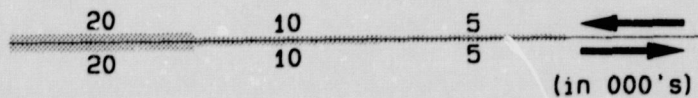


Figure 5

Conrail Traffic Allocated to Norfolk Southern
Multi-level Carloads
1995 Waybill Sample



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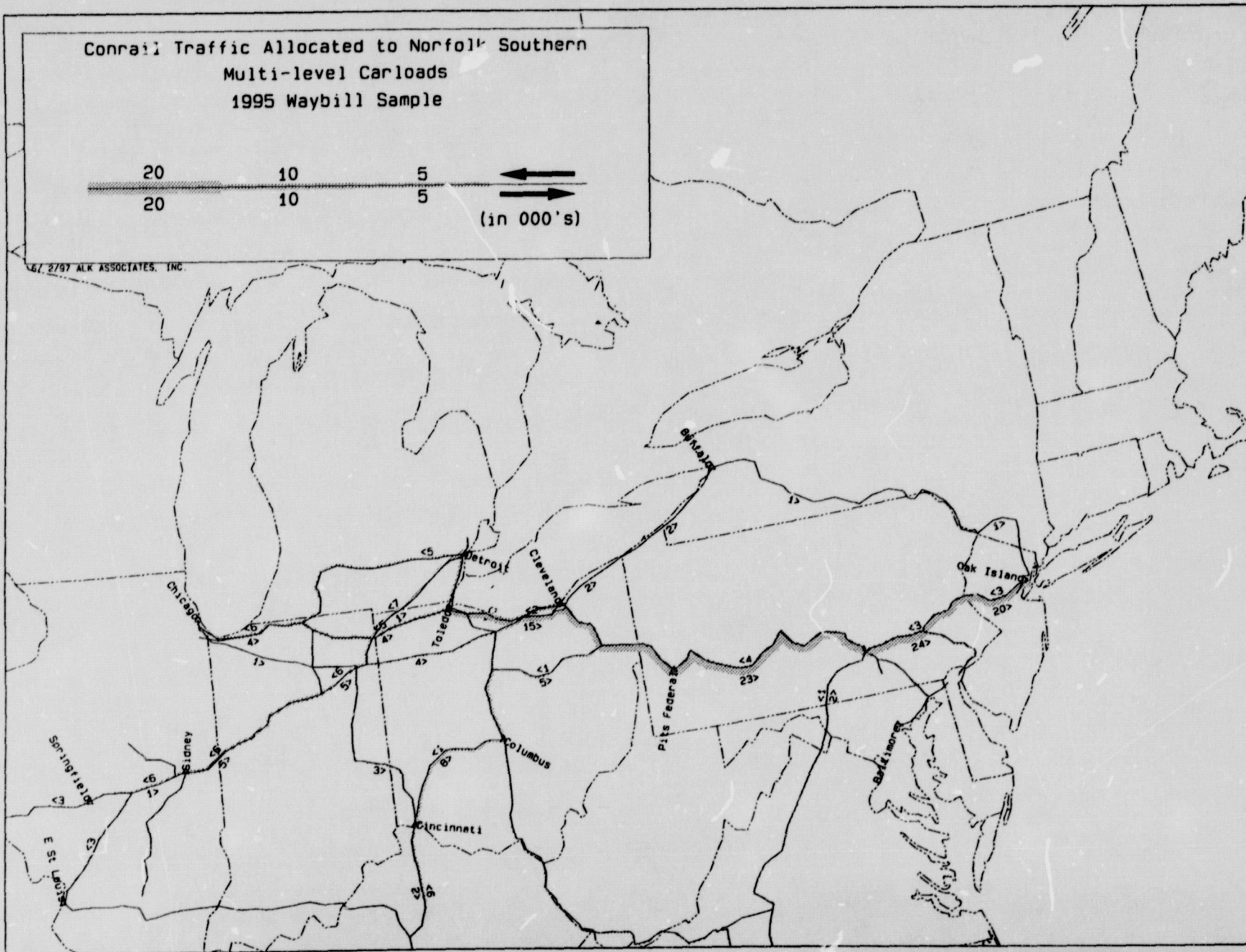
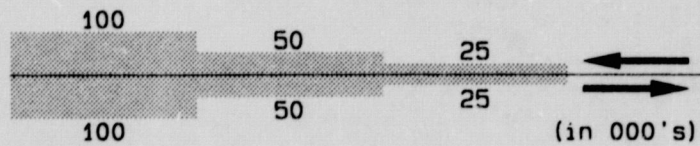


Figure 6

100 50 25
100 50 25
(in 000's)

Figure 7

Conrail Traffic Allocated to Norfolk Southern
General Merchandise Carloads
1995 Waybill Sample



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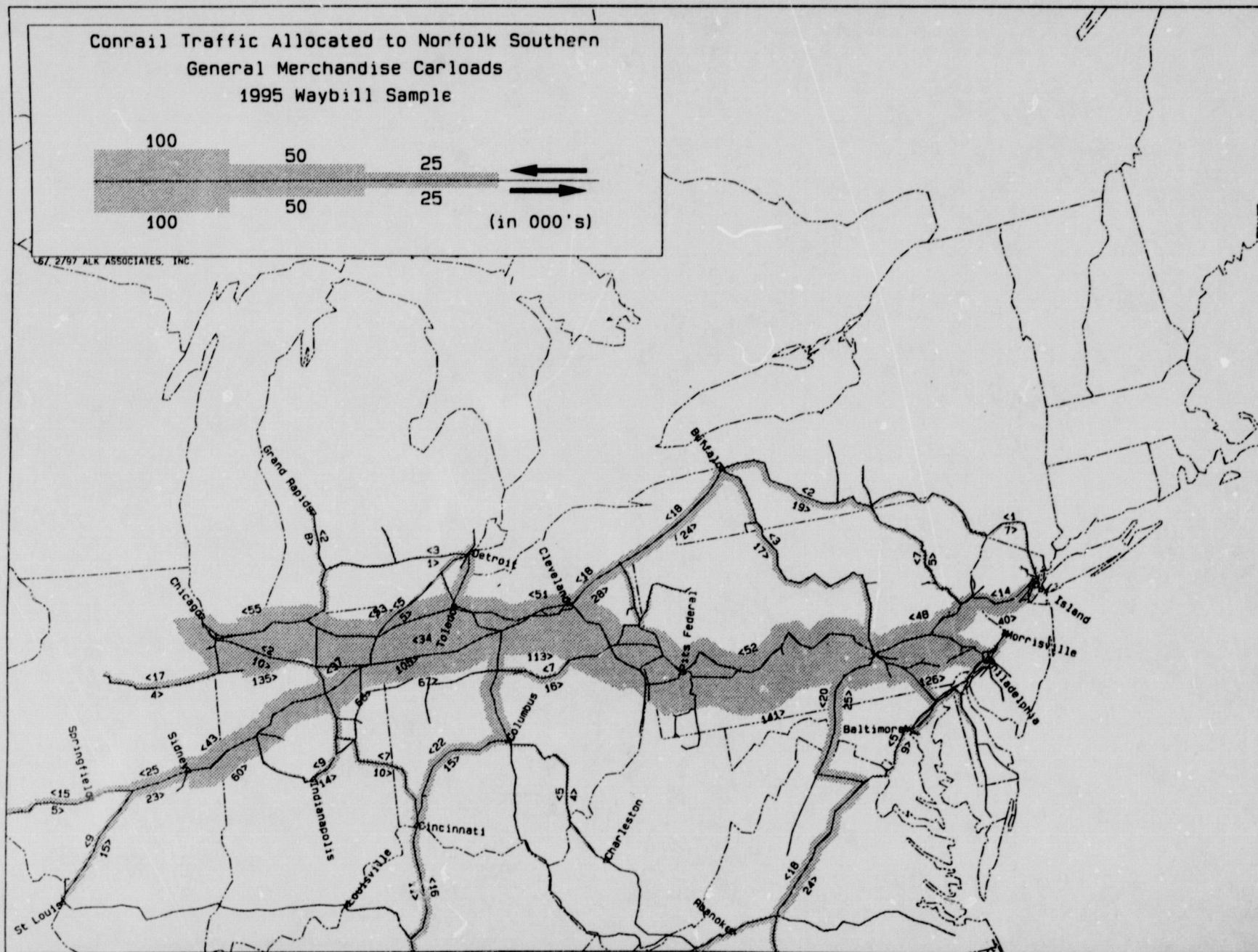


Figure 8

5. Results of the General Merchandise Study

The General Merchandise Study was conducted to estimate diversions and extended hauls of general merchandise traffic to new CSX services created by the transaction, based on the division of lines and facilities agreed to by CSX and NS, including the definitions of shared assets. Because this Study used a different traffic file than the Waybill Sample Study, this Study also replicated the allocation of Conrail's 1995 traffic movements to CSX that was performed in the Waybill Sample Study. The General Merchandise Study did not estimate diversions of freight from truck, barge or other modes to rail service.

The General Merchandise Study is based on a traffic file developed from four data sources: Conrail 1995 waybills from its COSAC system, CSX 1995 waybills from its DSIS system, NS 1995 waybills for movements terminated in Canada, and the 1995 STB Waybill Sample. The traffic file was limited to general merchandise movements. Movements of intermodal trailers and containers, multi-level cars for assembled autos, and coal, coke and iron ore (as defined by STCC by CSX's coal department) were excluded from the Study. Unlike the Waybill Sample Study, general merchandise traffic in this Study includes grain movements.

CSX elected to base the Study on the composite traffic file instead of the STB Waybill Sample in order to gain greater accuracy in market volumes and movement attributes than is captured in the Waybill Sample. The additional accuracy of volumes and attributes facilitated subsequent tasks to simulate empty car movements and to develop the operating plan for the post-transaction CSX system.

The Study results include estimates of the Conrail revenue that CSX will capture, estimates of the revenue from other carriers that CSX will capture (for example, from diversions of non-Conrail participatory traffic and from extended hauls on Conrail joint

traffic with other carriers allocated to CSX), estimates of the CSX revenue that NS will capture from CSX traffic allocated or diverted to NS, and estimates of the NS revenue that CSX will capture from NS traffic allocated or diverted to CSX.

Details on the traffic file used in this Study and application of the ATD are presented in Appendix IV.

Table 3 summarizes the revenue results of this Study for CSX. ALK estimates that Conrail's revenue for the traffic allocated to CSX is \$729 million. ALK estimates that CSX will capture a net gain of \$37 million from NS and other carriers based on CSX's post-transaction service for the Conrail traffic allocated to CSX. ALK estimates that CSX will capture an additional net gain of \$42 million from NS and other carriers due to diversions and extended hauls of non-Conrail participatory traffic in the traffic file.

The traffic acquired by CSX spans a diverse group of commodities. Table 4 lists the gains in CSX revenue by two-digit STCC groupings.

CSX gains revenue from NS and other carriers due to new and more efficient post-transaction routes. Between locations served by CSX and locations on Conrail lines acquired by CSX, including shared asset areas, CSX will be able to offer new single-line service. Additionally, due to the construction or improvement of connections between CSX lines and acquired Conrail lines, CSX will be able to offer shorter routes between some locations.

Figure 9 shows a traffic density map of the general merchandise traffic allocated and diverted to CSX.

Table 5 presents the revenue effects on other railroads of CSX's acquisition of its Conrail lines for general merchandise traffic. I understand that NS has separately assessed the revenue effects on other carriers of its acquisition of Conrail lines.

Table 3
Summary CSX Revenue Changes
General Merchandise Study
(Revenue in \$000)

Conrail Traffic Allocated to CSX		
	Gains from Conrail	\$728,847
	Gains from NS	\$26,127
	Gains from Others	\$44,837
	Losses to NS	(\$29,341)
	Losses to Others	(\$4,563)
	Net from/to NS and Others	\$37,060
Diversions and Extended Hauls of non-Conrail Traffic		
	Gains from NS	\$52,358
	Gains from Others	\$80,036
	Losses to NS	(\$74,949)
	Losses to Others	(\$15,460)
	Net from/to NS and Others	\$41,985
	Sum of Net from/to NS and Others	\$79,045
	Total Revenue Change	\$807,892

Table 4
Summary CSX Revenue Changes by Commodity
General Merchandise Study
(Revenue in \$000)

STCC	Commodity Name	Revenue Change
01	Farm Products	\$30,778
10	Metallic Ores	\$6,315
14	Non-metallic Minerals	\$19,512
20	Food or Kindred Products	\$114,687
24	Lumber or Wood Products	\$41,536
26	Pulp and Paper	\$111,456
28	Chemicals	\$128,769
29	Petroleum or Coal Products	\$18,746
32	Clay, Concrete, Glass, Stone	\$28,817
33	Primary Metal Products	\$61,291
36	Electrical Machinery	\$5,020
37	Transportation Equipment	\$89,630
40	Waste and Scrap	\$23,923
49	Hazardous Materials	\$114,513
	All Other	\$12,824
Total		\$807,817

Table 5
Summary Revenue Changes for Other Railroads
General Merchandise Study
(Revenue in \$000)

Railroad	Revenue Change
Buffalo and Pittsburgh	\$-3,560
Eurlington Northern Santa Fe	\$-13,959
Canadian National	\$-23,520
Chicago, South Shore and South Bend	\$-977
CP Rail System	\$-27,410
Eastern Shore	\$-275
Elgin, Joliet and Eastern	\$-671
Guilford System	\$6,706
Illinois Central	\$3,371
Kansas City Southern	\$-6,882
Louisville and Indiana	\$-117
New England Central	\$-1,468
New York, Susquehanna and Western	\$-1,032
Providence and Worcester	\$-1,700
Union Pacific	\$5,885
Wheeling and Lake Erie	\$451
Wisconsin Central	\$-782

Notes:

1. Buffalo and Pittsburgh includes Allegheny and Eastern, Genesee and Wyoming, and Rochester and Southern.
2. Illinois Central includes Cedar River and Chicago, Central and Pacific.
3. Kansas City Southern includes Gateway Western and Gateway Eastern.
4. Union Pacific includes Southern Pacific and Chicago and North Western.
5. Wisconsin Central includes Algoma Central.