

Motor Freight Transportation and Warehousing Survey: 1994

BT/94



Acknowledgments

Services Division prepared this report under the general direction of **James M. Aanestad**, Assistant Division Chief for the Current Service and Transportation Programs. **Thomas E. Zabelsky**, Chief, Current Services Branch, supervised the planning, implementation, and compiling of this report with assistance from **Ruth Bramblett**, **Susan Keehan**, **Christine Tucker**, **Ann H. Daniele**, **David M. Lassman**, and **James Warden**.

Sarah W. Baumgardner, Assistant Division Chief for Economic Surveys in the Economic Statistical Methods and Programming Division supervised the development of the processing system and computer programs. **Barry F. Sessamen**, Chief, Annual Services Branch, directed the development of the processing system and computer programs with assistance from **Jeffery B. Burton**, **Tatiana A. Gallagher**, **David M. Stachurski**, **Clarence Hill**, **George Varga**, and **Matthew M. Grinberg**.

Howard Hogan, Assistant Division Chief, Research and Methodology, directed the development of sample design and statistical methodology. **Patrick Cantwell**, Chief, Program Research and Development Branch, supervised the development of the sample design, including estimation and variance methodology, with assistance from **Carol Caldwell**, **William C. Davie, Jr.**, **Kimberly R. Dane**, and **Carol S. King**. **Carl A. Konschnik**, Chief, Statistical Methods Branch, supervised the development of sample control, imputation, and quality control procedures with assistance from **Linda Moore**, **Philip Steel**, and **Michael Shimberg**.

Coordination of data collection efforts was under the direction of **Judith N. Petty**, Chief, Data Preparation Division and **Matthew P. Aulbach**, Chief, Census and Economic Projects Branch assisted by **Kenneth R. Miller**, **Mary Rue**, **Debbie Woods**, and Services Division's on-site analysts, **Carlene Botorff** and **Michael Lutz**.

The staff of the Administrative and Customer Services Division, under the direction of **Walter C. Odom**, Chief, performed publication planning, design, composition, editorial review, printing planning, and procurement. **Nelsa Brown** provided publication coordination and editing.

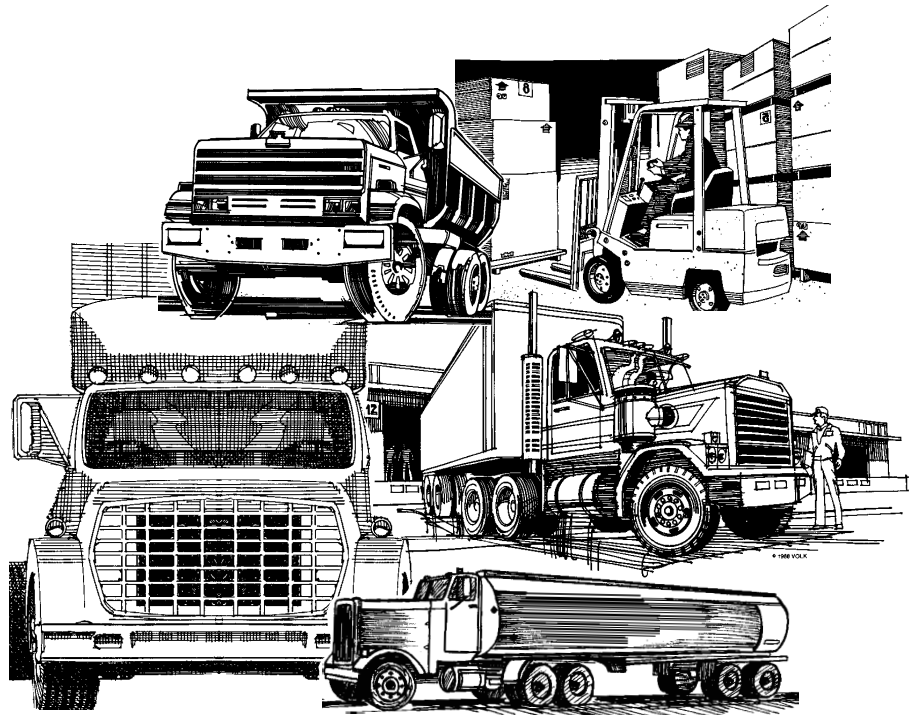
Special acknowledgment also is due to the many businesses whose cooperation was essential to the publication of this report.

Inquiries concerning this report should be addressed to **Thomas E. Zabelsky**, Services Division, Bureau of the Census, Washington, D.C. 20233, telephone 301-457-2766 or 301-457-2787.

CURRENT BUSINESS REPORTS

Motor Freight Transportation and Warehousing Survey: 1994

BT/94



Issued May 1996



U.S. Department of Commerce
Michael Kantor, Secretary

Economics and Statistics Administration
Everett M. Ehrlich, Under Secretary
for Economic Affairs

BUREAU OF THE CENSUS
Martha Farnsworth Riche, Director



**Economics and Statistics
Administration**

Everett M. Ehrlich, Under Secretary
for Economic Affairs



BUREAU OF THE CENSUS

Martha Farnsworth Riche, Director
Bryant Benton, Deputy Director

Paula J. Schneider, Principal Associate
Director for Programs

Frederick T. Knickerbocker, Associate
Director for Economic Programs

Thomas L. Mesenbourg, Assistant Director
for Economic Programs

SERVICES DIVISION

Carole A. Ambler, Chief

SUGGESTED CITATION

U.S. Bureau of the Census, Current Business Reports, BT/94, *Motor Freight Transportation and Warehousing Survey: 1994*, U.S. Government Printing Office, Washington, DC, 1996.

Contents

Introduction

Coverage	1
Benchmarking	1
Dollar Values	1
Unpublished Data	1
Census Disclosure Rules	1

Summary of Data

Trucking and Courier Services	5
Public Warehousing Services	21

Figures

1. Trucking and Courier Services (SIC 421)—Estimated Revenue, Expenses, and Annual Payroll, by Kind of Business: 1994	5
2. Trucking and Courier Services (SIC 421)—Estimated Percentages of Operating Expenses, by Type: 1994	8
3. Trucking and Courier Services (SIC 421)—Estimated Percentages of Motor Carrier Revenue from Local and Long-Distance Trucking, by Type of Carrier: 1994	8
4. Trucking and Courier Services (SIC 421)—Estimated Percentages of Motor Carrier Revenue, by Commodities Handled: 1994	17
5. Public Warehousing Services (SIC 422)—Estimated Revenue, Expenses, and Annual Payroll, by Kind of Business: 1994	21
6. Public Warehousing Services (SIC 422)—Estimated Percentages of Operating Expenses, by Type: 1994	23

Tables

1. Motor Freight Transportation and Warehousing Services (SIC 42)—Summary Statistics, by Kind of Business: 1985 Through 1994	2
2. Motor Freight Transportation and Warehousing Services (SIC 42)—Estimated Corporate Revenue, Expenses, and Annual Payroll, by Kind of Business: 1994	4
3. Trucking and Courier Services (SIC 421)—Estimated Operating Revenue and Expenses for All Carriers, by Kind of Business: 1985 Through 1994	6
4. Trucking and Courier Services (SIC 421)—Estimated Operating Revenue and Expenses, by Type of Carrier: 1985 Through 1994	9
5. Trucking and Courier Services (SIC 421)—Components of Operating Expense Estimates, by Type of Carrier: 1985 Through 1994	11
6. Trucking and Courier Services (SIC 421)—Estimated Motor Carrier Revenue, by Size of Shipments, Commodities Handled, and Origin and Destination of Shipments: 1985 Through 1994	17

7.	Trucking and Courier Services (SIC 421)—Estimated Inventories of Revenue Generating Equipment, by Type of Carrier, as of December 31: 1985 Through 1994	19
8.	Public Warehousing Services (SIC 422)—Estimated Operating Revenue and Expenses, by Kind of Business: 1985 Through 1994	22

Appendixes

A.	Measures of Sampling Variability.....	A-1
B.	Explanatory Material	B-1
C.	Kind-of-Business Classifications.....	C-1
D.	Report Forms.....	D-1

Appendix Tables

A-1.	Motor Freight Transportation and Warehousing Services (SIC 42)— Estimated Coefficients of Variation for Summary Statistics, by Kind of Business: 1993 and 1994	A-2
A-2.	Motor Freight Transportation and Warehousing Services (SIC 42)—Estimated Coefficients of Variation for Corporate Revenue, Expenses, and Annual Payroll, by Kind of Business: 1994.....	A-2
A-3.	Trucking and Courier Services (SIC 421)—Estimated Coefficients of Variation for Operating Revenue and Expenses for All Carriers, by Kind of Business: 1993 and 1994	A-3
A-4.	Trucking and Courier Services (SIC 421)—Estimated Coefficients of Variation for Operating Revenue and Expenses, by Type of Carrier: 1993 and 1994	A-4
A-5.	Trucking and Courier Services (SIC 421)—Estimated Coefficients of Variation for Components of Operating Expenses, by Type of Carrier: 1993 and 1994.....	A-5
A-6.	Trucking and Courier Services (SIC 421)—Estimated Coefficients of Variation for Motor Carrier Revenue, by Size of Shipments, Commodities Handled, and Origin and Destination of Shipments: 1993 and 1994	A-6
A-7.	Trucking and Courier Services (SIC 421)—Estimated Coefficients of Variation for Inventories of Revenue Generating Equipment, by Type of Carrier, as of December 31: 1993 and 1994	A-7
A-8.	Public Warehousing Services (SIC 422)—Estimated Coefficients of Variation for Operating Revenue and Expenses, by Kind of Business: 1993 and 1994.....	A-8

Introduction

Coverage

This report presents the results from the 1994 Motor Freight Transportation and Warehousing Survey. This annual sample survey represents all employer firms with one or more establishments that are primarily engaged in providing commercial motor freight transportation or public warehousing services. This includes firms furnishing local or long-distance trucking or transfer services, and those firms engaged in the storage of farm products, furniture or other household goods, or commercial goods of any nature.

This survey excludes private motor carriers that operate as auxiliary establishments to nontransportation companies, as well as independent owner-operators with no paid employees. As a result, the dollar volume estimates and estimates of year-to-year percentage change presented in this report should not be interpreted as representing measurements of total trucking industry activity.

Statistics in this report are summarized by kind-of-business classification based on the 1987 edition of the *Standard Industrial Classification Manual* issued by the Office of Management and Budget.

Appendix A provides estimated measures of sampling variability (coefficients of variation) for the dollar volume estimates and estimates of year-to-year ratios presented in the report. An explanation of the survey coverage, sampling, and estimation methodology appears in appendix B. Appendix C provides a description of each kind of business included in this report. Copies of the 1994 report forms are provided in appendix D.

Benchmarking

The 1988 through 1994 revenue and expense estimates shown in this publication reflect a benchmarking operation. Benchmarking accounts for differences between census and annual survey reporting and processing methods. This benchmarking operation adjusted previously published estimates to 1987 and 1992 census levels while minimizing changes to the previously published year-to-year trends.

For each detail SIC, we computed ratios of total revenue and expenses derived from the 1992 Census of Transportation, Communications, and Utilities to total revenue and expenses estimated from the 1992 Motor Freight Transportation and Warehousing Survey. These ratios were then applied to the annual revenue and expense estimates subsequent to 1992 to obtain adjusted 1993 and 1994 revenue and expense estimates.

For each detail SIC, the 1987 through 1992 annual revenue and expense estimates were used as input to the benchmarking program. These data were revised in a manner that linked the estimates to results from the 1987 and 1992 censuses. Differences were minimized in the year-to-year trends between the revised and previously published series for the years 1988 through 1992. Estimates of revenue for aggregate SIC's were obtained by summing appropriate detail level estimates, thereby assuring additivity.

For the years 1988-1994, all adjusted estimates for aggregate SIC's were derived by summation. For SIC 421, estimated inventories of revenue generating freight equipment were not adjusted.

Dollar Values

All dollar values presented in this report are expressed in current dollars, that is, the estimates are not adjusted to a constant dollar series. Consequently, when comparing data to prior years, users also should consider price level changes.

Unpublished Data

Estimates for some kinds of business not separately shown in this report are produced as a by-product of the published statistics. These additional data are not published because of their high sampling variability, poor response quality, or other factors that result in their failure to meet Census Bureau standards for publication. The Bureau of the Census, upon written request, will release such figures for individual use.

Note that some unpublished figures can be derived from this report by subtracting published data from their respective totals. However, such figures are subject to the limitations described above. These unpublished estimates are for internal use only.

Census Disclosure Rules

In accordance with Federal law governing Census reports, no data are published that would disclose the operation of an individual firm.

Table 1. Motor Freight Transportation and Warehousing Services (SIC 42)—Summary Statistics, by Kind of Business: 1985 Through 1994

[Estimates for years 1988-1994 reflect a benchmarking to the results of the 1992 Census of Transportation, Communications, and Utilities. See the Introduction for a description of the benchmarking process]

Item	Motor freight transportation and warehousing services ¹ (SIC 42)	Trucking and courier services, except by air ² (SIC 421)	Local trucking without storage (SIC 4212)	Trucking, except local (SIC 4213)	Local trucking with storage (SIC 4214)	Courier services, except by air (SIC 4215)	Public warehousing and storage (SIC 422)	Farm product warehousing and storage (SIC 4221)	Refrigerated warehousing and storage (SIC 4222)	General warehousing and storage (SIC 4225)	Special warehousing and storage (SIC 4226)
Total Operating Revenue											
Millions of dollars											
1994	167,865	157,910	39,400	91,971	4,282	22,257	9,911	773	1,970	4,652	2,516
1993	152,694	143,601	35,953	82,558	4,259	20,831	9,056	718	1,805	4,352	2,181
1992	143,793	135,437	33,554	78,358	4,191	19,334	8,329	656	1,745	3,919	2,009
1991	134,259	126,772	30,890	73,982	4,022	17,878	7,440	566	1,554	3,568	1,752
1990	134,532	127,314	31,397	74,465	4,115	17,337	7,147	625	1,469	3,257	1,796
Percent change											
1994/1993	9.9	10.0	9.6	11.4	0.5	6.8	9.4	7.7	9.1	6.9	15.4
1993/1992	6.2	6.0	7.1	5.4	1.6	7.7	8.7	9.5	3.4	11.0	8.6
1992/1991	7.1	6.8	8.6	5.9	4.2	8.1	11.9	15.9	12.3	9.8	14.7
1991/1990	-0.2	-0.4	-1.6	-0.6	-2.3	3.1	4.1	-9.4	5.8	9.5	-2.4
1990/1989	8.9	8.9	(NA)	(NA)	(NA)	(NA)	9.9	0.6	15.4	(NA)	(NA)
Total Operating Expenses											
Millions of dollars											
1994	156,227	147,911	36,444	87,078	4,131	20,258	8,271	652	1,667	3,803	2,149
1993	142,803	135,144	33,383	78,716	4,052	18,993	7,622	615	1,541	3,597	1,869
1992	134,752	127,687	31,047	75,061	3,930	17,649	7,041	573	1,482	3,242	1,744
1991	125,246	118,855	27,887	70,828	3,838	16,302	6,375	505	1,328	3,022	1,520
1990	125,123	118,968	28,049	70,965	3,885	16,069	6,142	542	1,286	2,774	1,540
Percent change											
1994/1993	9.4	9.4	9.2	10.6	1.9	6.7	8.5	6.0	8.2	5.7	15.0
1993/1992	6.0	5.8	7.5	4.9	3.1	7.6	8.3	7.3	4.0	11.0	7.2
1992/1991	7.6	7.4	11.3	6.0	2.4	8.3	10.4	13.5	11.6	7.3	14.7
1991/1990	0.1	-0.1	-0.6	-0.2	-1.2	1.4	3.8	-6.8	3.3	8.9	-1.3
1990/1989	7.5	7.5	(NA)	(NA)	(NA)	(NA)	8.4	6.7	13.7	(NA)	(NA)
Annual Payroll											
Millions of dollars											
1994	46,137	43,580	9,193	24,658	1,362	8,367	2,540	152	522	1,170	696
1993	42,266	39,889	8,434	22,277	1,351	7,827	2,364	144	488	1,120	612
1992	39,896	37,761	8,044	20,975	1,346	7,396	2,127	129	464	983	551
1991	37,914	36,012	7,521	20,043	1,324	7,124	1,896	116	423	885	472
1990	37,257	35,388	7,575	20,029	1,344	6,440	1,864	125	416	845	478
Percent change											
1994/1993	9.2	9.3	9.0	10.7	0.8	6.9	7.4	5.6	7.0	4.5	13.7
1993/1992	5.9	5.6	4.8	6.2	0.4	5.8	11.1	11.6	5.2	13.9	11.1
1992/1991	5.2	4.9	7.0	4.7	1.7	3.8	12.2	11.2	9.7	11.1	16.7
1991/1990	1.8	1.8	-0.7	0.1	-1.5	10.6	1.7	-7.2	1.7	4.7	-1.3
1990/1989	4.3	4.1	(NA)	(NA)	(NA)	(NA)	8.3	8.7	14.9	(NA)	(NA)
Employer Contributions to Social Security and Other Supplemental Benefits											
Millions of dollars											
1994	12,101	11,502	2,159	6,228	301	2,814	596	39	135	265	157
1993	11,309	10,745	1,959	5,863	301	2,622	561	38	128	256	139
1992	10,647	10,125	1,835	5,583	310	2,397	520	36	131	226	127
1991	9,861	9,393	1,686	5,304	303	2,100	466	32	111	208	115
1990	9,512	9,060	(S)	5,168	289	1,909	450	35	105	193	117
Percent change											
1994/1993	7.0	7.0	10.2	6.2	-	7.3	6.2	2.6	5.5	3.5	12.9
1993/1992	6.2	6.1	6.8	5.0	-2.9	9.4	7.9	5.6	-2.3	13.3	9.4
1992/1991	8.0	7.8	8.8	5.3	2.3	14.1	11.6	12.5	18.0	8.7	10.4
1991/1990	3.7	3.7	(S)	2.6	4.8	10.0	3.6	-8.6	5.7	7.8	-1.7
1990/1989	7.1	6.6	(NA)	(NA)	(NA)	(NA)	18.1	25.0	16.7	(NA)	(NA)

See footnotes at end of table.

Table 1. Motor Freight Transportation and Warehousing Services (SIC 42)—Summary Statistics, by Kind of Business: 1985 Through 1994—Continued

[Estimates for years 1988-1994 reflect a benchmarking to the results of the 1992 Census of Transportation, Communications, and Utilities. See the Introduction for a description of the benchmarking process]

Item	Motor freight transportation and warehousing services ¹ (SIC 42)	Trucking and courier services, except by air ² (SIC 421)	Local trucking without storage (SIC 4212)	Trucking, except local (SIC 4213)	Local trucking with storage (SIC 4214)	Courier services, except by air (SIC 4215)	Public warehousing and storage (SIC 422)	Farm product warehousing and storage (SIC 4221)	Refrigerated warehousing and storage (SIC 4222)	General warehousing and storage (SIC 4225)	Special warehousing and storage (SIC 4226)
Total Operating Revenue											
Millions of dollars											
1989	123,520	116,937	(NA)	(NA)	(NA)	(NA)	6,505	621	1,273	(NA)	(NA)
1988	115,326	109,274	(NA)	(NA)	(NA)	(NA)	5,991	591	1,224	(NA)	(NA)
1987	103,743	98,422	(NA)	(NA)	(NA)	(NA)	5,255	586	1,171	(NA)	(NA)
1986	97,322	92,164	(NA)	(NA)	(NA)	(NA)	5,115	495	1,080	(NA)	(NA)
1985	92,285	87,480	(NA)	(NA)	(NA)	(NA)	4,754	493	958	(NA)	(NA)
Percent change											
1989/1988	7.1	7.0	(NA)	(NA)	(NA)	(NA)	8.6	5.1	4.0	(NA)	(NA)
1988/1987	11.2	11.0	(NA)	(NA)	(NA)	(NA)	14.0	0.9	4.5	(NA)	(NA)
1987/1986	6.6	6.8	(NA)	(NA)	(NA)	(NA)	2.7	18.4	8.4	(NA)	(NA)
1986/1985	5.5	5.4	(NA)	(NA)	(NA)	(NA)	7.6	0.4	12.7	(NA)	(NA)
Total Operating Expenses											
Millions of dollars											
1989	116,359	110,669	(NA)	(NA)	(NA)	(NA)	5,667	508	1,131	(NA)	(NA)
1988	109,009	103,741	(NA)	(NA)	(NA)	(NA)	5,254	508	1,072	(NA)	(NA)
1987	98,351	93,793	(NA)	(NA)	(NA)	(NA)	4,536	477	985	(NA)	(NA)
1986	90,441	85,965	(NA)	(NA)	(NA)	(NA)	4,442	419	951	(NA)	(NA)
1985	87,643	83,461	(NA)	(NA)	(NA)	(NA)	4,136	431	832	(NA)	(NA)
Percent change											
1989/1988	6.7	6.7	(NA)	(NA)	(NA)	(NA)	7.9	-	5.5	(NA)	(NA)
1988/1987	10.8	10.6	(NA)	(NA)	(NA)	(NA)	15.8	6.5	8.8	(NA)	(NA)
1987/1986	8.7	9.1	(NA)	(NA)	(NA)	(NA)	2.1	13.8	3.6	(NA)	(NA)
1986/1985	3.2	3.0	(NA)	(NA)	(NA)	(NA)	7.4	- 2.8	14.3	(NA)	(NA)
Annual Payroll											
Millions of dollars											
1989	35,730	34,003	(NA)	(NA)	(NA)	(NA)	1,721	115	362	(NA)	(NA)
1988	33,658	32,042	(NA)	(NA)	(NA)	(NA)	1,612	109	351	(NA)	(NA)
1987	30,987	29,577	(NA)	(NA)	(NA)	(NA)	1,405	101	321	(NA)	(NA)
1986	29,012	27,534	(NA)	(NA)	(NA)	(NA)	1,462	121	340	(NA)	(NA)
1985	28,141	26,772	(NA)	(NA)	(NA)	(NA)	1,349	121	305	(NA)	(NA)
Percent change											
1989/1988	6.2	6.1	(NA)	(NA)	(NA)	(NA)	6.8	5.5	3.1	(NA)	(NA)
1988/1987	8.6	8.3	(NA)	(NA)	(NA)	(NA)	14.7	7.9	9.3	(NA)	(NA)
1987/1986	6.8	7.4	(NA)	(NA)	(NA)	(NA)	- 3.9	- 16.5	- 5.6	(NA)	(NA)
1986/1985	3.1	2.8	(NA)	(NA)	(NA)	(NA)	8.4	-	11.5	(NA)	(NA)
Employer Contributions to Social Security and Other Supplemental Benefits											
Millions of dollars											
1989	8,885	8,502	(NA)	(NA)	(NA)	(NA)	381	28	90	(NA)	(NA)
1988	7,918	7,594	(NA)	(NA)	(NA)	(NA)	322	24	79	(NA)	(NA)
1987	7,057	6,783	(NA)	(NA)	(NA)	(NA)	264	21	74	(NA)	(NA)
1986	6,499	6,218	(NA)	(NA)	(NA)	(NA)	274	18	79	(NA)	(NA)
1985	6,383	6,125	(NA)	(NA)	(NA)	(NA)	249	20	55	(NA)	(NA)
Percent change											
1989/1988	12.2	12.0	(NA)	(NA)	(NA)	(NA)	18.3	16.7	13.9	(NA)	(NA)
1988/1987	12.2	12.0	(NA)	(NA)	(NA)	(NA)	22.0	14.3	6.8	(NA)	(NA)
1987/1986	8.6	9.1	(NA)	(NA)	(NA)	(NA)	- 3.6	16.7	- 6.3	(NA)	(NA)
1986/1985	1.8	1.5	(NA)	(NA)	(NA)	(NA)	10.0	- 10.0	43.6	(NA)	(NA)

NA Not available. S Data do not meet publication standards because of high sampling variability or poor response quality. Some unpublished estimates can be derived from this table by subtracting published data from their respective totals. However, the figures obtained by such subtraction are subject to these same limitations. These unpublished data are for internal use only. - Represents zero.

¹Includes terminal and joint terminal maintenance facilities for motor carrier transportation (SIC 4231) not shown separately.

²Excludes private motor carriers that operate as auxiliary establishments to nontransportation companies and independent owner-operators with no paid employees.

Note: Detail may not add to total due to rounding. Estimates are not adjusted for price changes. Appendix A, table A-1 provides estimated measures of sampling variability (coefficients of variation).

Table 2. **Motor Freight Transportation and Warehousing Services (SIC 42)—Estimated Corporate Revenue, Expenses, and Annual Payroll, by Kind of Business: 1994**

SIC code	Kind of business	Total operating revenue (Millions of dollars)	Percent of total operating revenue	Total operating expenses (Millions of dollars)	Percent of total operating expenses	Annual payroll (Millions of dollars)	Percent of annual payroll
42	Motor freight transportation and warehousing services ¹	167,865	91.3	156,227	92.0	46,137	93.5
421	Trucking and courier services, except by air ²	157,910	91.7	147,911	92.2	43,580	93.7
4212	Local trucking without storage	39,400	81.2	36,444	82.2	9,193	83.4
4213	Trucking, except local	91,971	94.3	87,078	94.4	24,658	95.4
4214	Local trucking with storage	4,282	95.0	4,131	95.0	1,362	96.0
4215	Courier services, except by air	22,257	98.0	20,258	98.5	8,367	99.0
422	Public warehousing and storage	9,911	83.5	8,271	87.6	2,540	89.6
4221	Farm product warehousing and storage ...	773	81.8	652	84.0	152	87.9
4222	Refrigerated warehousing and storage	1,970	91.8	1,667	91.7	522	91.5
4225	General warehousing and storage	4,652	77.5	3,803	85.1	1,170	87.8
4226	Special warehousing and storage	2,516	90.1	2,149	90.6	696	91.8

¹Includes terminal and joint terminal maintenance facilities for motor carrier transportation (SIC 4231) not shown separately.

²Excludes private motor carriers that operate as auxiliary establishments to nontransportation companies and independent owner-operators with no paid employees.

Note: Detail may not add to total due to rounding. Estimates are not adjusted for price changes. Appendix A, table A-2 provides estimated measures of sampling variability (coefficients of variation).

Trucking and Courier Services

Summary of Data

Total operating revenue in 1994 for the for-hire trucking and courier services industry (excluding air courier services) was estimated at \$157.9 billion, up 10 percent from 1993. Long-distance trucking, which accounted for more than 74 percent of all motor carrier revenue, was up 9.6 percent from 1993. Local trucking revenue rose 11.9 percent from 1993 to approximately \$38.2 billion in 1994. Truckload shipments accounted for approximately 63 percent of motor carrier revenue in 1994 and increased 12.5 percent from 1993.

Slightly more than 47 percent of motor carrier revenue came from transporting manufactured products, such as furniture, hardware, glass products, textiles and apparel, and the delivery of small packages. Revenue in 1994 from

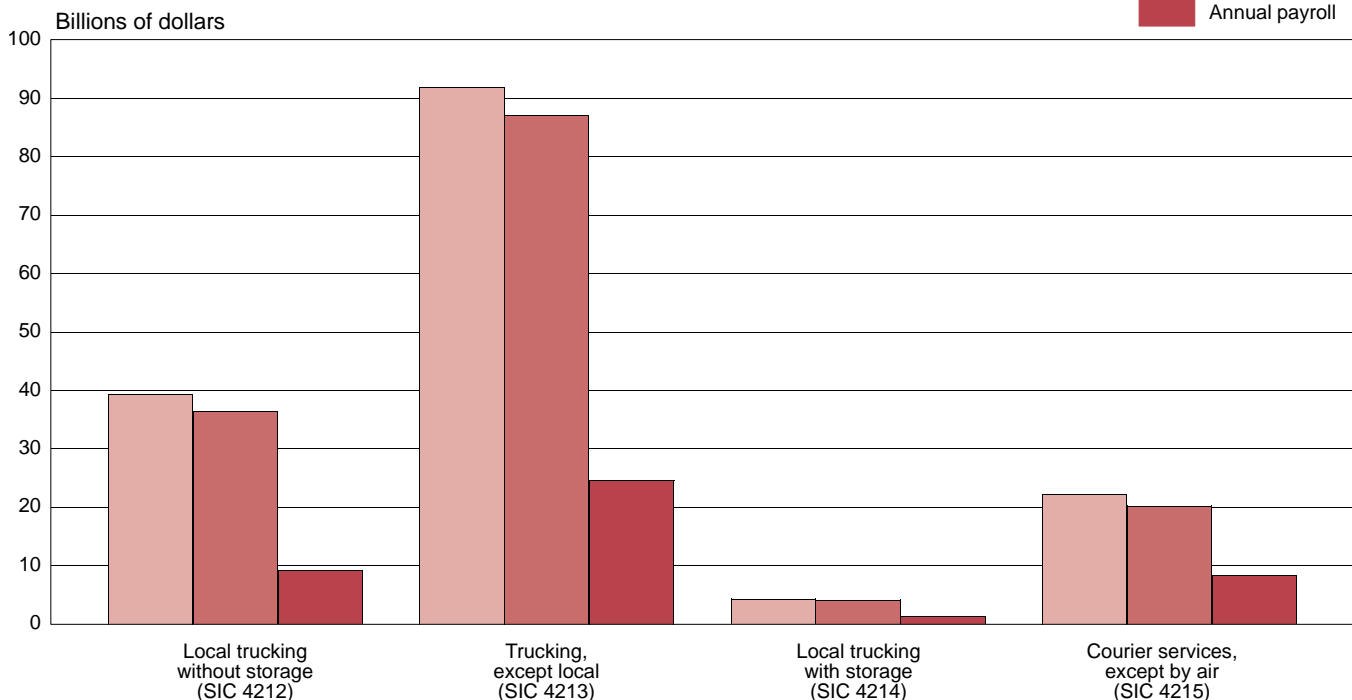
the transport of forestry, wood, and paper products rose 17.8 percent from 1993.

Total operating expenses were estimated at \$147.9 billion in 1994, up 9.4 percent from 1993. Annual payroll accounted for more than 29 percent of all trucking expenses, totaling \$43.6 billion for 1994. Purchased transportation rose 9.9 percent from 1993, while the cost of purchased fuels and maintenance and repair expenses rose 9.6 percent and 10.5 percent, respectively.

Total operating revenue for long-distance trucking, SIC 4213, rose 11.4 percent from 1993 to approximately \$92 billion in 1994. Total operating expenses were estimated at \$87.1 billion in 1994 and were up 10.6 percent over 1993. Annual payroll accounted for more than 28 percent of the industry's expenses in 1994 and was up 10.7 percent from 1993.

Figure 1.

Trucking and Courier Services (SIC 421)—Estimated Revenue, Expenses, and Annual Payroll, by Kind of Business: 1994



Note: See appendix A, table A-1 for estimated measures of sampling variability (coefficients of variation). Estimates are not adjusted for price changes. Expenses include annual payroll.

Table 3. Trucking and Courier Services (SIC 421)—Estimated Operating Revenue and Expenses for All Carriers, by Kind of Business: 1985 Through 1994

[Millions of dollars. Estimates for years 1988-1994 reflect a benchmarking to the results of the 1992 Census of Transportation, Communications, and Utilities. See the Introduction for a description of the benchmarking process]

Item	Trucking and courier services, except by air (SIC 421)					Local trucking without storage (SIC 4212)					Trucking, except local (SIC 4213)					Local trucking with storage (SIC 4214)					Courier services, except by air (SIC 4215)					
	1994	1993	1992	1991	1990	1994	1993	1992	1991	1990	1994	1993	1992	1991	1990	1994	1993	1992	1991	1990	1994	1993	1992	1991	1990	
Operating Revenue																										
Total	157,910	143,601	135,437	126,772	127,314	39,400	35,953	33,554	30,890	31,397	91,971	82,558	78,358	73,982	74,465	4,282	4,259	4,191	4,022	4,115	22,257	20,831	19,334	17,878	17,337	
Motor carrier	149,160	135,383	127,049	117,732	117,122	36,342	33,026	30,450	27,322	27,336	87,553	78,533	74,386	69,800	69,701	3,192	3,133	3,030	2,845	2,866	22,073	20,691	19,183	17,765	17,219	
Local trucking	38,157	34,086	31,120	27,281	28,017	23,487	20,886	19,318	17,150	17,258	10,317	9,293	8,244	7,047	7,758	2,026	1,892	1,787	1,543	1,536	2,327	2,015	1,771	1,541	1,465	
Long-distance trucking	111,003	101,297	95,929	90,451	89,105	12,855	12,140	11,132	10,172	10,078	77,236	69,240	66,142	62,753	61,943	1,166	1,241	1,243	1,302	1,330	19,746	18,676	17,412	16,224	15,754	
Operating Expenses																										
Total	147,911	135,144	127,687	118,855	118,968	36,444	33,383	31,047	27,887	28,049	87,078	78,716	75,061	70,828	70,965	4,131	4,052	3,930	3,838	3,885	20,258	18,993	17,649	16,302	16,069	
Annual payroll	43,580	39,889	37,761	36,012	35,388	9,193	8,434	8,044	7,521	7,575	24,658	22,277	20,975	20,043	20,029	1,362	1,351	1,346	1,324	1,344	8,367	7,827	7,396	7,124	6,440	
Employer contributions to Social Security and other supplemental benefits	11,502	10,745	10,125	9,393	9,060	2,159	1,959	1,835	1,686	(S)	6,228	5,863	5,583	5,304	5,168	301	301	310	303	289	2,814	2,622	2,397	2,100	1,909	
Purchased fuels	13,287	12,119	11,345	10,203	10,115	3,727	3,389	2,922	2,376	2,404	7,968	7,179	6,941	6,558	6,555	199	214	210	187	192	1,393	1,337	1,272	1,082	964	
Purchased transportation	29,329	26,678	24,760	22,507	22,864	5,294	4,930	4,256	3,731	3,953	21,141	19,038	18,055	16,622	16,792	699	636	601	596	578	2,195	2,074	1,848	1,558	1,541	
Lease and rental	2,732	2,545	2,521	2,501	2,506	649	610	648	689	(S)	1,309	1,203	1,177	1,177	1,199	254	237	239	236	242	520	495	457	399	368	
Insurance	5,489	5,097	4,801	4,637	4,521	1,618	1,547	1,460	1,245	1,188	3,251	2,945	2,819	2,834	2,808	196	202	182	184	185	424	403	340	374	340	
Maintenance and repair	9,442	8,542	7,985	7,138	7,139	3,181	2,841	2,600	2,148	2,174	5,250	4,760	4,504	4,203	4,194	223	212	195	(S)	(S)	788	729	686	582	552	
Depreciation	8,218	7,450	6,998	6,610	6,566	2,478	2,253	2,062	1,808	1,806	4,551	4,061	3,860	3,764	3,802	148	163	170	152	166	1,041	973	906	886	792	
Taxes and licenses	3,676	3,351	3,212	2,839	2,705	885	808	732	593	595	2,385	2,161	2,116	1,932	1,831	78	75	69	59	62	328	307	295	255	217	
Drug and alcohol testing and rehabilitation programs	82	64	53	39	30	26	19	13	8	5	52	41	37	29	24	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(S)	
Other operating expenses	20,574	18,664	18,126	16,976	18,074	7,234	6,593	6,475	6,082	5,958	10,285	9,188	8,994	8,362	8,563	668	658	606	590	607	2,387	2,225	2,051	1,942	2,946	

See footnotes at end of table.

Table 3. Trucking and Courier Services (SIC 421)—Estimated Operating Revenue and Expenses for All Carriers, by Kind of Business: 1985 Through 1994—Continued

[Millions of dollars. Estimates for years 1988-1994 reflect a benchmarking to the results of the 1992 Census of Transportation, Communications, and Utilities. See the Introduction for a description of the benchmarking process]

Item	Trucking and courier services, except by air (SIC 421)					Local trucking without storage (SIC 4212)					Trucking, except local (SIC 4213)					Local trucking with storage (SIC 4214)					Courier services, except by air (SIC 4215)					
	1989	1988	1987	1986	1985	1989	1988	1987	1986	1985	1989	1988	1987	1986	1985	1989	1988	1987	1986	1985	1989	1988	1987	1986	1985	
Operating Revenue																										
Total	116,937	109,274	98,422	92,164	87,480	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Motor carrier	107,645	100,006	90,716	84,452	80,672	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Local trucking	25,560	24,101	21,437	18,088	19,184	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Long-distance trucking	82,085	75,905	69,279	66,364	61,488	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Operating Expenses																										
Total	110,669	103,741	93,793	85,965	83,461	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Annual payroll	34,003	32,042	29,577	27,534	26,772	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Employer contributions to Social Security and other supplemental benefits	8,502	7,594	6,783	6,218	6,125	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Purchased fuels	8,419	7,076	6,351	5,893	7,209	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Purchased transportation	21,478	21,287	19,191	18,155	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Lease and rental	2,278	2,190	1,955	1,790	1,450	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Insurance	4,313	4,077	3,569	3,116	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Maintenance and repair	6,557	5,928	5,278	4,893	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Depreciation	6,098	5,537	4,978	4,527	4,281	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Taxes and licenses	2,536	2,277	2,076	2,045	2,043	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Drug and alcohol testing and rehabilitation programs	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Other operating expenses	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)

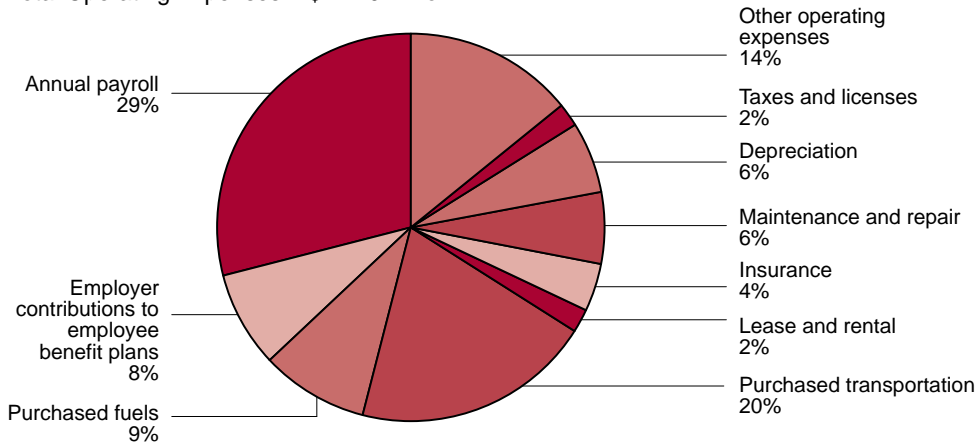
S Data do not meet publication standards because of high sampling variability or poor response quality. Some unpublished estimates can be derived from this table by subtracting published data from their respective totals. However, the figures obtained by such subtraction are subject to these same limitations. These unpublished data are for internal use only. NA Not available.

Note: Excludes private motor carriers that operate as auxiliary establishments to nontransportation companies and independent owner-operators with no paid employees. Detail may not add to total due to rounding. Estimates are not adjusted for price changes. Appendix A, table A-3 provides estimated measures of sampling variability (coefficients of variation).

Figure 2.

**Trucking and Courier Services (SIC 421)—
Estimated Percentages of Operating
Expenses, by Type: 1994**

Total Operating Expenses = \$147.9 Billion



Note: See appendix A, table A-5 for estimated measures of sampling variability (coefficients of variation). Other operating expenses includes the cost of drug and alcohol testing and rehabilitation programs.

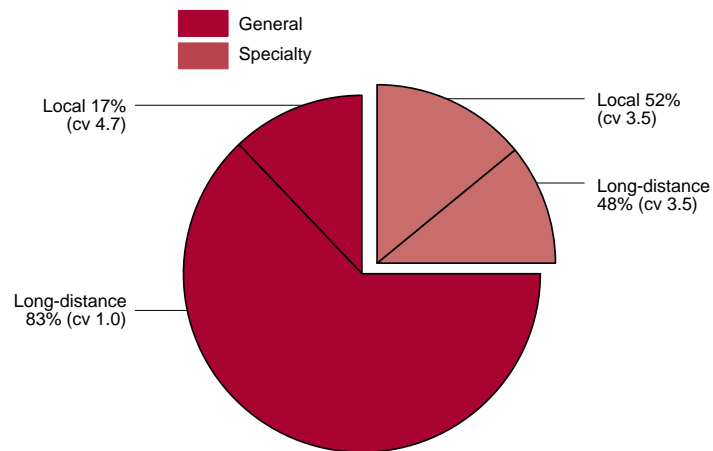
Figure 3.

**Trucking and Courier Services (SIC 421)—Estimated Percentages
of Motor Carrier Revenue from Local and Long-Distance Trucking,
by Type of Carrier: 1994**

Total Motor Carrier Revenue = \$149.2 Billion

Motor Carrier Revenue, General Carriers = \$112.1 Billion

Motor Carrier Revenue, Specialty Carriers = \$37.0 Billion



cv Estimated coefficient of variation.

Table 4. Trucking and Courier Services (SIC 421)—Estimated Operating Revenue and Expenses, by Type of Carrier: 1985 Through 1994

[Estimates for years 1988-1994 reflect a benchmarking to the results of the 1992 Census of Transportation, Communications, and Utilities. See the Introduction for a description of the benchmarking process]

Item	Millions of dollars					Percent change				
	1994	1993	1992	1991	1990	1994/1993	1993/1992	1992/1991	1991/1990	1990/1989
ALL CARRIERS										
Operating Revenue										
Total	157,910	143,601	135,437	126,772	127,314	10.0	6.0	6.8	- 0.4	8.9
Motor carrier	149,160	135,383	127,049	117,732	117,122	10.2	6.6	7.9	0.5	8.8
Local trucking	38,157	34,086	31,120	27,281	28,017	11.9	9.5	14.1	- 2.6	9.6
Long-distance trucking	111,003	101,297	95,929	90,451	89,105	9.6	5.6	6.1	1.5	8.6
Operating Expenses										
Total	147,911	135,144	127,687	118,855	118,968	9.4	5.8	7.4	- 0.1	7.5
Annual payroll	43,580	39,889	37,761	36,012	35,388	9.3	5.6	4.9	1.8	4.1
Employer contributions to Social Security and other supplemental benefits	11,502	10,745	10,125	9,393	9,060	7.0	6.1	7.8	3.7	6.6
Purchased fuels	13,287	12,119	11,345	10,203	10,115	9.6	6.8	11.2	0.9	20.1
Purchased transportation	29,329	26,678	24,760	22,507	22,864	9.9	7.7	10.0	- 1.6	6.5
Lease and rental	2,732	2,545	2,521	2,501	2,506	7.3	1.0	0.8	- 0.2	10.0
Insurance	5,489	5,097	4,801	4,637	4,521	7.7	6.2	3.5	2.6	4.8
Maintenance and repair	9,442	8,542	7,985	7,138	7,139	10.5	7.0	11.9	(Z)	8.9
Depreciation	8,218	7,450	6,998	6,610	6,566	10.3	6.5	5.9	0.7	7.7
Taxes and licenses	3,676	3,351	3,212	2,839	2,705	9.7	4.3	13.1	5.0	6.7
Drug and alcohol testing and rehabilitation programs	82	64	53	39	30	28.1	20.8	35.9	30.0	(NA)
Other operating expenses	20,574	18,664	18,126	16,976	18,074	10.2	3.0	6.8	- 6.1	(NA)
SPECIALTY CARRIERS										
Operating Revenue										
Total	41,205	38,335	36,729	34,884	35,877	7.5	4.4	5.3	- 2.8	5.3
Motor carrier	37,015	34,279	32,690	30,604	31,042	8.0	4.9	6.8	- 1.4	5.0
Local trucking	19,231	17,442	16,366	14,668	14,783	10.3	6.6	11.6	- 0.8	8.7
Long-distance trucking	17,784	16,837	16,324	15,936	16,259	5.6	3.1	2.4	- 2.0	1.9
Operating Expenses										
Total	38,403	35,902	34,101	32,072	32,576	7.0	5.3	6.3	- 1.5	5.4
Annual payroll	9,349	8,735	8,362	8,126	8,244	7.0	4.5	2.9	- 1.4	5.0
Employer contributions to Social Security and other supplemental benefits	2,283	2,042	1,973	1,876	1,932	11.8	3.5	5.2	- 2.9	6.0
Purchased fuels	2,498	2,314	2,111	1,923	1,908	8.0	9.6	9.8	0.8	13.1
Purchased transportation	7,906	7,586	6,805	6,093	6,463	4.2	11.5	11.7	- 5.7	- 1.1
Lease and rental	765	719	711	715	713	6.4	1.1	- 0.6	0.3	4.4
Insurance	1,577	1,473	1,383	1,328	1,269	7.1	6.5	4.1	4.6	- 2.0
Maintenance and repair	2,645	2,367	2,298	2,128	2,160	11.7	3.0	8.0	- 1.5	4.0
Depreciation	2,016	1,950	1,886	1,847	1,878	3.4	3.4	2.1	- 1.7	- 1.6
Taxes and licenses	746	688	667	584	594	8.4	3.1	14.2	- 1.7	3.1
Drug and alcohol testing and rehabilitation programs	23	18	15	11	7	27.8	20.0	36.4	57.1	(NA)
Other operating expenses	8,595	8,010	7,890	7,441	7,408	7.3	1.5	6.0	0.4	(NA)
GENERAL CARRIERS										
Operating Revenue										
Total	116,705	105,266	98,708	91,888	91,437	10.9	6.6	7.4	0.5	10.3
Motor carrier	112,145	101,104	94,359	87,128	86,080	10.9	7.1	8.3	1.2	10.2
Local trucking	18,926	16,644	14,754	12,613	13,234	13.7	12.8	17.0	- 4.7	10.6
Long-distance trucking	93,219	84,460	79,605	74,515	72,846	10.4	6.1	6.8	2.3	10.2
Operating Expenses										
Total	109,508	99,242	93,586	86,783	86,392	10.3	6.0	7.8	0.5	8.3
Annual payroll	34,231	31,154	29,399	27,886	27,144	9.9	6.0	5.4	2.7	3.8
Employer contributions to Social Security and other supplemental benefits	9,219	8,703	8,152	7,517	7,128	5.9	6.8	8.4	5.5	6.7
Purchased fuels	10,789	9,805	9,234	8,280	8,207	10.0	6.2	11.5	0.9	21.9
Purchased transportation	21,423	19,092	17,955	16,414	16,401	12.2	6.3	9.4	0.1	9.8
Lease and rental	1,967	1,826	1,810	1,786	1,793	7.7	0.9	1.3	- 0.4	12.4
Insurance	3,912	3,624	3,418	3,309	3,252	7.9	6.0	3.3	1.8	7.8
Maintenance and repair	6,797	6,175	5,687	5,010	4,979	10.1	8.6	13.5	0.6	11.1
Depreciation	6,202	5,500	5,112	4,763	4,688	12.8	7.6	7.3	1.6	11.9
Taxes and licenses	2,930	2,663	2,545	2,255	2,111	10.0	4.6	12.9	6.8	7.7
Drug and alcohol testing and rehabilitation programs	59	46	38	28	23	28.3	21.1	35.7	21.7	(NA)
Other operating expenses	11,979	10,654	10,236	9,535	10,666	12.4	4.1	7.4	- 10.6	(NA)

See footnotes at end of table.

Table 4. Trucking and Courier Services (SIC 421)—Estimated Operating Revenue and Expenses, by Type of Carrier: 1985 Through 1994—Continued

[Estimates for years 1988-1994 reflect a benchmarking to the results of the 1992 Census of Transportation, Communications, and Utilities. See the Introduction for a description of the benchmarking process]

Item	Millions of dollars					Percent change			
	1989	1988	1987	1986	1985	1989/1988	1988/1987	1987/1986	1986/1985
ALL CARRIERS									
Operating Revenue									
Total	116,937	109,274	98,422	92,164	87,480	7.0	11.0	6.8	5.4
Motor carrier	107,645	100,006	90,716	84,452	80,672	7.6	10.2	7.4	4.7
Local trucking	25,560	24,101	21,437	18,088	19,184	6.1	12.4	18.5	-5.7
Long-distance trucking	82,085	75,905	69,279	66,364	61,488	8.1	9.6	4.4	7.9
Operating Expenses									
Total	110,669	103,741	93,793	85,965	83,461	6.7	10.6	9.1	3.0
Annual payroll	34,003	32,042	29,577	27,534	26,772	6.1	8.3	7.4	2.8
Employer contributions to Social Security and other supplemental benefits	8,502	7,594	6,783	6,218	6,125	12.0	12.0	9.1	1.5
Purchased fuels	8,419	7,076	6,351	5,893	7,209	19.0	11.4	7.8	-18.3
Purchased transportation	21,478	21,287	19,191	18,155	(NA)	0.9	10.9	5.7	(NA)
Lease and rental	2,278	2,190	1,955	1,790	1,450	4.0	12.0	9.2	23.4
Insurance	4,313	4,077	3,569	3,116	(NA)	5.8	14.2	14.5	(NA)
Maintenance and repair	6,557	5,928	5,278	4,893	(NA)	10.6	12.3	7.9	(NA)
Depreciation	6,098	5,537	4,978	4,527	4,281	10.1	11.2	10.0	5.7
Taxes and licenses	2,536	2,277	2,076	2,045	2,043	11.4	9.7	1.5	0.1
Drug and alcohol testing and rehabilitation programs	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Other operating expenses	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
SPECIALTY CARRIERS									
Operating Revenue									
Total	34,069	31,993	29,153	27,488	25,235	6.5	9.7	6.1	8.9
Motor carrier	29,557	27,709	25,285	23,444	22,218	6.7	9.6	7.9	5.5
Local trucking	13,599	12,322	11,672	10,264	9,289	10.4	5.6	13.7	10.5
Long-distance trucking	15,958	15,387	13,613	13,180	12,929	3.7	13.0	3.3	1.9
Operating Expenses									
Total	30,896	28,493	26,313	24,708	22,676	8.4	8.3	6.5	9.0
Annual payroll	7,854	7,227	6,688	6,263	6,012	8.7	8.1	6.8	4.2
Employer contributions to Social Security and other supplemental benefits	1,822	1,569	1,430	1,319	1,233	16.1	9.7	8.4	7.0
Purchased fuels	1,687	1,511	1,387	1,228	1,475	11.6	8.9	12.9	-16.7
Purchased transportation	6,537	6,645	6,245	6,452	(NA)	-1.6	6.4	-3.2	(NA)
Lease and rental	683	663	610	538	380	3.0	8.7	13.4	41.6
Insurance	1,295	1,241	1,237	1,047	(NA)	4.4	0.3	18.1	(NA)
Maintenance and repair	2,077	1,867	1,775	1,707	(NA)	11.2	5.2	4.0	(NA)
Depreciation	1,908	1,777	1,713	1,469	1,361	7.4	3.7	16.6	7.9
Taxes and licenses	576	532	557	467	444	8.3	-4.5	19.3	5.2
Drug and alcohol testing and rehabilitation programs	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Other operating expenses	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
GENERAL CARRIERS									
Operating Revenue									
Total	82,868	77,281	69,269	64,676	62,245	7.2	11.6	7.1	3.9
Motor carrier	78,088	72,297	65,431	61,008	58,454	8.0	10.5	7.2	4.4
Local trucking	11,961	11,779	9,765	7,824	9,895	1.5	20.6	24.8	-20.9
Long-distance trucking	66,127	60,518	55,666	53,184	48,559	9.3	8.7	4.7	9.5
Operating Expenses									
Total	79,773	75,248	67,480	61,257	60,785	6.0	11.5	10.2	0.8
Annual payroll	26,149	24,815	22,889	21,271	20,760	5.4	8.4	7.6	2.5
Employer contributions to Social Security and other supplemental benefits	6,680	6,025	5,353	4,899	4,892	10.9	12.6	9.3	0.1
Purchased fuels	6,732	5,565	4,964	4,665	5,734	21.0	12.1	6.4	-18.6
Purchased transportation	14,941	14,642	12,946	11,703	(NA)	2.0	13.1	10.6	(NA)
Lease and rental	1,595	1,527	1,345	1,252	1,070	4.5	13.5	7.4	17.0
Insurance	3,018	2,836	2,332	2,069	(NA)	6.4	21.6	12.7	(NA)
Maintenance and repair	4,480	4,061	3,503	3,186	(NA)	10.3	15.9	9.9	(NA)
Depreciation	4,190	3,760	3,265	3,058	2,920	11.4	15.2	6.8	4.7
Taxes and licenses	1,960	1,745	1,519	1,578	1,599	12.3	14.9	-3.7	-1.3
Drug and alcohol testing and rehabilitation programs	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Other operating expenses	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)

Z Less than .05 percent. NA Not available.

Note: Excludes private motor carriers that operate as auxiliary establishments to nontransportation companies and independent owner-operators with no paid employees. Detail may not add to total due to rounding. Estimates are not adjusted for price changes. Appendix A, table A-4 provides estimated measures of sampling variability (coefficients of variation).

Table 5. Trucking and Courier Services (SIC 421)—Components of Operating Expense Estimates, by Type of Carrier: 1985 Through 1994

[Estimates for years 1988-1994 reflect a benchmarking to the results of the 1992 Census of Transportation, Communications, and Utilities. See the Introduction for a description of the benchmarking process]

Item	All carriers									
	Millions of dollars					Percent of total operating expenses				
	1994	1993	1992	1991	1990	1994	1993	1992	1991	1990
Operating Expenses										
Total	147,911	135,144	127,687	118,855	118,968	100.0	100.0	100.0	100.0	100.0
Annual payroll	43,580	39,889	37,761	36,012	35,388	29.5	29.5	29.6	30.3	29.7
Employer contributions to Social Security and other supplemental benefits	11,502	10,745	10,125	9,393	9,060	7.8	8.0	7.9	7.9	7.6
Plans required under Federal and State legislation	6,169	5,739	5,467	5,070	4,946	4.2	4.2	4.3	4.3	4.2
Other fringe benefit plans	5,333	5,006	4,658	4,323	4,114	3.6	3.7	3.6	3.6	3.5
Purchased fuels	13,287	12,119	11,345	10,203	10,115	9.0	9.0	8.9	8.6	8.5
Trucks, truck-tractors, and other motor vehicles	12,820	11,695	10,969	9,861	9,780	8.7	8.7	8.6	8.3	8.2
Heat, power, and generating electricity	467	424	376	342	335	0.3	0.3	0.3	0.3	0.3
Purchased transportation	29,329	26,678	24,760	22,507	22,864	19.8	19.7	19.4	18.9	19.2
Trucks, truck-tractors, trailers, and other motor vehicles rented or leased with drivers	19,356	17,811	16,323	15,136	15,579	13.1	13.2	12.8	12.7	13.1
Trucks, truck-tractors, trailers, and other motor vehicles rented or leased without drivers	5,434	4,980	4,772	4,346	4,162	3.7	3.7	3.7	3.7	3.5
Transportation purchased from railroads, airlines, water, and other motor carriers	4,539	3,887	3,665	3,025	3,123	3.1	2.9	2.9	2.5	2.6
Lease and rental	2,732	2,545	2,521	2,501	2,506	1.8	1.9	2.0	2.1	2.1
Buildings, offices, and structures	2,169	2,038	1,999	1,994	2,012	1.5	1.5	1.6	1.7	1.7
Machinery and equipment (other than motor vehicles)	563	507	522	507	494	0.4	0.4	0.4	0.4	0.4
Insurance	5,489	5,097	4,801	4,637	4,521	3.7	3.8	3.8	3.9	3.8
Public liability and property damage insurance	3,352	3,137	2,928	2,766	2,640	2.3	2.3	2.3	2.3	2.2
Insurance for loss of, or damage to, motor vehicles and their cargos	1,816	1,664	1,589	1,579	1,599	1.2	1.2	1.2	1.3	1.3
Insurance for buildings, offices, structures, and machinery and equipment (other than motor vehicles)	321	296	284	292	282	0.2	0.2	0.2	0.2	0.2
Maintenance and repair	9,442	8,542	7,985	7,138	7,139	6.4	6.3	6.3	6.0	6.0
Motor vehicle parts for self-repair	5,424	4,964	4,801	4,512	4,422	3.7	3.7	3.8	3.8	3.7
Trucks, truck-tractors, trailers, and other motor vehicles	3,142	2,777	2,457	1,841	1,847	2.1	2.1	1.9	1.5	1.6
Buildings, offices, and structures	378	323	275	308	335	0.3	0.2	0.2	0.3	0.3
Machinery and equipment (other than motor vehicles)	498	478	452	477	535	0.3	0.4	0.4	0.4	0.4
Depreciation	8,218	7,450	6,998	6,610	6,566	5.6	5.5	5.5	5.6	5.5
Trucks, truck-tractors, trailers, and other motor vehicles	6,388	5,725	5,343	4,996	5,040	4.3	4.2	4.2	4.2	4.2
Buildings, offices, and structures	883	828	779	778	717	0.6	0.6	0.6	0.7	0.6
Machinery and equipment (other than motor vehicles)	947	897	876	836	809	0.6	0.7	0.7	0.7	0.7
Taxes and licenses	3,676	3,351	3,212	2,839	2,705	2.5	2.5	2.5	2.4	2.3
Drug and alcohol testing and rehabilitation programs	82	64	53	39	30	0.1	(Z)	(Z)	(Z)	(Z)
Other operating expenses	20,574	18,664	18,126	16,976	18,074	13.9	13.8	14.2	14.3	15.2

See footnotes at end of table.

Table 5. Trucking and Courier Services (SIC 421)—Components of Operating Expense Estimates, by Type of Carrier: 1985 Through 1994—Continued

[Estimates for years 1988-1994 reflect a benchmarking to the results of the 1992 Census of Transportation, Communications, and Utilities. See the Introduction for a description of the benchmarking process]

Item	All carriers									
	Millions of dollars					Percent of total operating expenses				
	1989	1988	1987	1986	1985	1989	1988	1987	1986	1985
Operating Expenses										
Total	110,669	103,741	93,793	85,965	83,461	100.0	100.0	100.0	100.0	100.0
Annual payroll	34,003	32,042	29,577	27,534	26,772	30.7	30.9	31.5	32.0	32.1
Employer contributions to Social Security and other supplemental benefits	8,502	7,594	6,783	6,218	6,125	7.7	7.3	7.2	7.2	7.3
Plans required under Federal and State legislation	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Other fringe benefit plans	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Purchased fuels	8,419	7,076	6,351	5,893	7,209	7.6	6.8	6.8	6.9	8.6
Trucks, truck-tractors, and other motor vehicles	8,117	6,784	6,089	5,620	6,954	7.3	6.5	6.5	6.5	8.3
Heat, power, and generating electricity	302	292	262	273	255	0.3	0.3	0.3	0.3	0.3
Purchased transportation	21,478	21,287	19,191	18,155	(NA)	19.4	20.5	20.5	21.1	(NA)
Trucks, truck-tractors, trailers, and other motor vehicles rented or leased with drivers	14,958	15,298	(S)	13,352	(NA)	13.5	14.7	(S)	15.5	(NA)
Trucks, truck-tractors, trailers, and other motor vehicles rented or leased without drivers	(S)	(S)	(S)	2,294	(NA)	(S)	(S)	(S)	2.7	(NA)
Transportation purchased from railroads, airlines, water, and other motor carriers	2,789	2,683	2,488	2,509	(NA)	2.5	2.6	2.7	2.9	(NA)
Lease and rental	2,278	2,190	1,955	1,790	1,450	2.1	2.1	2.1	2.1	1.7
Buildings, offices, and structures	1,805	1,723	1,451	1,222	(NA)	1.6	1.7	1.5	1.4	(NA)
Machinery and equipment (other than motor vehicles)	(S)	(S)	(S)	(S)	(NA)	(S)	(S)	(S)	(S)	(NA)
Insurance	4,313	4,077	3,569	3,116	(NA)	3.9	3.9	3.8	3.6	(NA)
Public liability and property damage insurance	2,509	2,283	2,070	1,685	(NA)	2.3	2.2	2.2	2.0	(NA)
Insurance for loss of, or damage to, motor vehicles and their cargos	1,533	1,544	1,278	1,208	(NA)	1.4	1.5	1.4	1.4	(NA)
Insurance for buildings, offices, structures, and machinery and equipment (other than motor vehicles)	271	250	221	223	(NA)	0.2	0.2	0.2	0.3	(NA)
Maintenance and repair	6,557	5,928	5,278	4,893	(NA)	5.9	5.7	5.6	5.7	(NA)
Motor vehicle parts for self-repair	4,002	3,581	3,247	2,868	(NA)	3.6	3.5	3.5	3.3	(NA)
Trucks, truck-tractors, trailers, and other motor vehicles	1,721	1,604	1,414	1,361	(NA)	1.6	1.5	1.5	1.6	(NA)
Buildings, offices, and structures	322	274	253	234	(NA)	0.3	0.3	0.3	0.3	(NA)
Machinery and equipment (other than motor vehicles)	512	469	364	(S)	(NA)	0.5	0.5	0.4	(S)	(NA)
Depreciation	6,098	5,537	4,978	4,527	4,281	5.5	5.3	5.3	5.3	5.1
Trucks, truck-tractors, trailers, and other motor vehicles	4,786	4,304	3,812	3,514	3,319	4.3	4.1	4.1	4.1	4.0
Buildings, offices, and structures	622	549	499	470	(NA)	0.6	0.5	0.5	0.5	(NA)
Machinery and equipment (other than motor vehicles)	690	684	667	543	(NA)	0.6	0.7	0.7	0.6	(NA)
Taxes and licenses	2,536	2,277	2,076	2,045	2,043	2.3	2.2	2.2	2.4	2.4
Drug and alcohol testing and rehabilitation programs	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Other operating expenses	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)

See footnotes at end of table.

Table 5. Trucking and Courier Services (SIC 421)—Components of Operating Expense Estimates, by Type of Carrier: 1985 Through 1994—Continued

[Estimates for years 1988-1994 reflect a benchmarking to the results of the 1992 Census of Transportation, Communications, and Utilities. See the Introduction for a description of the benchmarking process]

Item	Specialty carriers									
	Millions of dollars					Percent of total operating expenses				
	1994	1993	1992	1991	1990	1994	1993	1992	1991	1990
Operating Expenses										
Total	38,403	35,902	34,101	32,072	32,576	100.0	100.0	100.0	100.0	100.0
Annual payroll	9,349	8,735	8,362	8,126	8,244	24.3	24.3	24.5	25.3	25.3
Employer contributions to Social Security and other supplemental benefits	2,283	2,042	1,973	1,876	1,932	5.9	5.7	5.8	5.8	5.9
Plans required under Federal and State legislation	1,404	1,265	1,212	1,143	1,168	3.7	3.5	3.6	3.6	3.6
Other fringe benefit plans	879	777	761	733	764	2.3	2.2	2.2	2.3	2.3
Purchased fuels	2,498	2,314	2,111	1,923	1,908	6.5	6.4	6.2	6.0	5.9
Trucks, truck-tractors, and other motor vehicles	2,379	2,204	2,018	1,851	1,843	6.2	6.1	5.9	5.8	5.7
Heat, power, and generating electricity	119	110	93	72	65	0.3	0.3	0.3	0.2	0.2
Purchased transportation	7,906	7,586	6,805	6,093	6,463	20.6	21.1	20.0	19.0	19.8
Trucks, truck-tractors, trailers, and other motor vehicles rented or leased with drivers	6,089	5,697	5,104	4,842	5,121	15.9	15.9	15.0	15.1	15.7
Trucks, truck-tractors, trailers, and other motor vehicles rented or leased without drivers	1,256	1,289	1,096	874	862	3.3	3.6	3.2	2.7	2.6
Transportation purchased from railroads, airlines, water, and other motor carriers	(S)	(S)	(S)	(S)	480	(S)	(S)	(S)	(S)	1.5
Lease and rental	765	719	711	715	713	2.0	2.0	2.1	2.2	2.2
Buildings, offices, and structures	590	568	547	556	560	1.5	1.6	1.6	1.7	1.7
Machinery and equipment (other than motor vehicles)	175	151	164	159	153	0.5	0.4	0.5	0.5	0.5
Insurance	1,577	1,473	1,383	1,328	1,269	4.1	4.1	4.1	4.1	3.9
Public liability and property damage insurance	873	818	741	745	695	2.3	2.3	2.2	2.3	2.1
Insurance for loss of, or damage to, motor vehicles and their cargos	594	550	539	482	475	1.5	1.5	1.6	1.5	1.5
Insurance for buildings, offices, structures, and machinery and equipment (other than motor vehicles)	110	105	103	101	99	0.3	0.3	0.3	0.3	0.3
Maintenance and repair	2,645	2,367	2,298	2,128	2,160	6.9	6.6	6.7	6.6	6.6
Motor vehicle parts for self-repair	1,367	1,190	1,253	1,199	1,184	3.6	3.3	3.7	3.7	3.6
Trucks, truck-tractors, trailers, and other motor vehicles	970	886	789	622	631	2.5	2.5	2.3	1.9	1.9
Buildings, offices, and structures	120	104	93	106	119	0.3	0.3	0.3	0.3	0.4
Machinery and equipment (other than motor vehicles)	188	187	163	201	226	0.5	0.5	0.5	0.6	0.7
Depreciation	2,016	1,950	1,886	1,847	1,878	5.2	5.4	5.5	5.8	5.8
Trucks, truck-tractors, trailers, and other motor vehicles	1,523	1,503	1,449	1,380	1,415	4.0	4.2	4.2	4.3	4.3
Buildings, offices, and structures	174	158	149	166	163	0.5	0.4	0.4	0.5	0.5
Machinery and equipment (other than motor vehicles)	319	289	288	301	300	0.8	0.8	0.8	0.9	0.9
Taxes and licenses	746	688	667	584	594	1.9	1.9	2.0	1.8	1.8
Drug and alcohol testing and rehabilitation programs	23	18	15	11	7	0.1	0.1	(Z)	(Z)	(Z)
Other operating expenses	8,595	8,010	7,890	7,441	7,408	22.4	22.3	23.1	23.2	22.7

See footnotes at end of table.

Table 5. Trucking and Courier Services (SIC 421)—Components of Operating Expense Estimates, by Type of Carrier: 1985 Through 1994—Continued

[Estimates for years 1988-1994 reflect a benchmarking to the results of the 1992 Census of Transportation, Communications, and Utilities. See the Introduction for a description of the benchmarking process]

Item	Specialty carriers									
	Millions of dollars					Percent of total operating expenses				
	1989	1988	1987	1986	1985	1989	1988	1987	1986	1985
Operating Expenses										
Total	30,896	28,493	26,313	24,708	22,676	100.0	100.0	100.0	100.0	100.0
Annual payroll	7,854	7,227	6,688	6,263	6,012	25.4	25.4	25.4	25.3	26.5
Employer contributions to Social Security and other supplemental benefits	1,822	1,569	1,430	1,319	1,233	5.9	5.5	5.4	5.3	5.4
Plans required under Federal and State legislation	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Other fringe benefit plans	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Purchased fuels	1,687	1,511	1,387	1,228	1,475	5.5	5.3	5.3	5.0	6.5
Trucks, truck-tractors, and other motor vehicles	1,626	1,449	1,330	1,189	1,436	5.3	5.1	5.1	4.8	6.3
Heat, power, and generating electricity	61	62	(S)	39	39	0.2	0.2	(S)	0.2	0.2
Purchased transportation	6,537	6,645	6,245	6,452	(NA)	21.2	23.3	23.7	26.1	(NA)
Trucks, truck-tractors, trailers, and other motor vehicles rented or leased with drivers	5,331	5,566	(S)	5,590	(NA)	17.3	19.5	(S)	22.6	(NA)
Trucks, truck-tractors, trailers, and other motor vehicles rented or leased without drivers	(S)	(S)	(S)	(S)	(NA)	(S)	(S)	(S)	(S)	(NA)
Transportation purchased from railroads, airlines, water, and other motor carriers	(S)	(S)	(S)	(S)	(NA)	(S)	(S)	(S)	(S)	(NA)
Lease and rental	683	663	610	538	380	2.2	2.3	2.3	2.2	1.7
Buildings, offices, and structures	537	515	512	428	(NA)	1.7	1.8	1.9	1.7	(NA)
Machinery and equipment (other than motor vehicles)	(S)	(S)	(S)	(S)	(NA)	(S)	(S)	(S)	(S)	(NA)
Insurance	1,295	1,241	1,237	1,047	(NA)	4.2	4.4	4.7	4.2	(NA)
Public liability and property damage insurance	728	683	718	551	(NA)	2.4	2.4	2.7	2.2	(NA)
Insurance for loss of, or damage to, motor vehicles and their cargos	461	448	419	399	(NA)	1.5	1.6	1.6	1.6	(NA)
Insurance for buildings, offices, structures, and machinery and equipment (other than motor vehicles)	106	110	100	97	(NA)	0.3	0.4	0.4	0.4	(NA)
Maintenance and repair	2,077	1,867	1,775	1,707	(NA)	6.7	6.6	6.7	6.9	(NA)
Motor vehicle parts for self-repair	1,151	1,028	994	859	(NA)	3.7	3.6	3.8	3.5	(NA)
Trucks, truck-tractors, trailers, and other motor vehicles	593	564	530	497	(NA)	1.9	2.0	2.0	2.0	(NA)
Buildings, offices, and structures	119	103	(S)	112	(NA)	0.4	0.4	(S)	0.5	(NA)
Machinery and equipment (other than motor vehicles)	(S)	(S)	(S)	(S)	(NA)	(S)	(S)	(S)	(S)	(NA)
Depreciation	1,908	1,777	1,713	1,469	1,361	6.2	6.2	6.5	5.9	6.0
Trucks, truck-tractors, trailers, and other motor vehicles	1,476	1,314	1,224	1,070	1,030	4.8	4.6	4.7	4.3	4.5
Buildings, offices, and structures	166	(S)	115	115	(NA)	0.5	(S)	0.4	0.5	(NA)
Machinery and equipment (other than motor vehicles)	266	(S)	(S)	284	(NA)	0.9	(S)	(S)	1.1	(NA)
Taxes and licenses	576	532	557	467	444	1.9	1.9	2.1	1.9	2.0
Drug and alcohol testing and rehabilitation programs	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Other operating expenses	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)

See footnotes at end of table.

Table 5. Trucking and Courier Services (SIC 421)—Components of Operating Expense Estimates, by Type of Carrier: 1985 Through 1994—Continued

[Estimates for years 1988-1994 reflect a benchmarking to the results of the 1992 Census of Transportation, Communications, and Utilities. See the Introduction for a description of the benchmarking process]

Item	General carriers									
	Millions of dollars					Percent of total operating expenses				
	1994	1993	1992	1991	1990	1994	1993	1992	1991	1990
Operating Expenses										
Total	109,508	99,242	93,586	86,783	86,392	100.0	100.0	100.0	100.0	100.0
Annual payroll	34,231	31,154	29,399	27,886	27,144	31.3	31.4	31.4	32.1	31.4
Employer contributions to Social Security and other supplemental benefits	9,219	8,703	8,152	7,517	7,128	8.4	8.8	8.7	8.7	8.3
Plans required under Federal and State legislation	4,765	4,474	4,255	3,927	3,778	4.4	4.5	4.5	4.5	4.4
Other fringe benefit plans	4,454	4,229	3,897	3,590	3,350	4.1	4.3	4.2	4.1	3.9
Purchased fuels	10,789	9,805	9,234	8,280	8,207	9.9	9.9	9.9	9.5	9.5
Trucks, truck-tractors, and other motor vehicles	10,441	9,491	8,951	8,010	7,937	9.5	9.6	9.6	9.2	9.2
Heat, power, and generating electricity	348	314	283	270	270	0.3	0.3	0.3	0.3	0.3
Purchased transportation	21,423	19,092	17,955	16,414	16,401	19.6	19.2	19.2	18.9	19.0
Trucks, truck-tractors, trailers, and other motor vehicles rented or leased with drivers	13,267	12,114	11,219	10,294	10,458	12.1	12.2	12.0	11.9	12.1
Trucks, truck-tractors, trailers, and other motor vehicles rented or leased without drivers	4,178	3,691	3,676	3,472	3,300	3.8	3.7	3.9	4.0	3.8
Transportation purchased from railroads, airlines, water, and other motor carriers	3,978	3,287	3,060	2,648	2,643	3.6	3.3	3.3	3.1	3.1
Lease and rental	1,967	1,826	1,810	1,786	1,793	1.8	1.8	1.9	2.1	2.1
Buildings, offices, and structures	1,579	1,470	1,452	1,438	1,452	1.4	1.5	1.6	1.7	1.7
Machinery and equipment (other than motor vehicles)	388	356	358	348	341	0.4	0.4	0.4	0.4	0.4
Insurance	3,912	3,624	3,418	3,309	3,252	3.6	3.7	3.7	3.8	3.8
Public liability and property damage insurance	2,479	2,319	2,187	2,021	1,945	2.3	2.3	2.3	2.3	2.3
Insurance for loss of, or damage to, motor vehicles and their cargos	1,222	1,114	1,050	1,097	1,124	1.1	1.1	1.1	1.3	1.3
Insurance for buildings, offices, structures, and machinery and equipment (other than motor vehicles)	211	191	181	191	183	0.2	0.2	0.2	0.2	0.2
Maintenance and repair	6,797	6,175	5,687	5,010	4,979	6.2	6.2	6.1	5.8	5.8
Motor vehicle parts for self-repair	4,057	3,774	3,548	3,313	3,238	3.7	3.8	3.8	3.8	3.7
Trucks, truck-tractors, trailers, and other motor vehicles	2,172	1,891	1,668	1,219	1,216	2.0	1.9	1.8	1.4	1.4
Buildings, offices, and structures	258	219	182	202	216	0.2	0.2	0.2	0.2	0.3
Machinery and equipment (other than motor vehicles)	310	291	289	276	309	0.3	0.3	0.3	0.3	0.4
Depreciation	6,202	5,500	5,112	4,763	4,688	5.7	5.5	5.5	5.5	5.4
Trucks, truck-tractors, trailers, and other motor vehicles	4,865	4,222	3,894	3,616	3,625	4.4	4.3	4.2	4.2	4.2
Buildings, offices, and structures	709	670	630	612	554	0.6	0.7	0.7	0.7	0.6
Machinery and equipment (other than motor vehicles)	628	608	588	535	509	0.6	0.6	0.6	0.6	0.6
Taxes and licenses	2,930	2,663	2,545	2,255	2,111	2.7	2.7	2.7	2.6	2.4
Drug and alcohol testing and rehabilitation programs	59	46	38	28	23	0.1	(Z)	(Z)	(Z)	(Z)
Other operating expenses	11,979	10,654	10,236	9,535	10,666	10.9	10.7	10.9	11.0	12.3

See footnotes at end of table.

Table 5. Trucking and Courier Services (SIC 421)—Components of Operating Expense Estimates, by Type of Carrier: 1985 Through 1994—Continued

[Estimates for years 1988-1994 reflect a benchmarking to the results of the 1992 Census of Transportation, Communications, and Utilities. See the Introduction for a description of the benchmarking process]

Item	General carriers									
	Millions of dollars					Percent of total operating expenses				
	1989	1988	1987	1986	1985	1989	1988	1987	1986	1985
Operating Expenses										
Total	79,773	75,248	67,480	61,257	60,785	100.0	100.0	100.0	100.0	100.0
Annual payroll	26,149	24,815	22,889	21,271	20,760	32.8	33.0	33.9	34.7	34.2
Employer contributions to Social Security and other supplemental benefits	6,680	6,025	5,353	4,899	4,892	8.4	8.0	7.9	8.0	8.0
Plans required under Federal and State legislation	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Other fringe benefit plans	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Purchased fuels	6,732	5,565	4,964	4,665	5,734	8.4	7.4	7.4	7.6	9.4
Trucks, truck-tractors, and other motor vehicles	6,491	5,335	4,759	4,431	5,518	8.1	7.1	7.1	7.2	9.1
Heat, power, and generating electricity	241	230	205	234	216	0.3	0.3	0.3	0.4	0.4
Purchased transportation	14,941	14,642	12,946	11,703	(NA)	18.7	19.5	19.2	19.1	(NA)
Trucks, truck-tractors, trailers, and other motor vehicles rented or leased with drivers	9,627	9,732	(S)	7,762	(NA)	12.1	12.9	(S)	12.7	(NA)
Trucks, truck-tractors, trailers, and other motor vehicles rented or leased without drivers	(S)	(S)	(S)	1,842	(NA)	(S)	(S)	(S)	3.0	(NA)
Transportation purchased from railroads, airlines, water, and other motor carriers	2,342	2,308	2,110	2,099	(NA)	2.9	3.1	3.1	3.4	(NA)
Lease and rental	1,595	1,527	1,345	1,252	1,070	2.0	2.0	2.0	2.0	1.8
Buildings, offices, and structures	1,268	(S)	939	794	(NA)	1.6	(S)	1.4	1.3	(NA)
Machinery and equipment (other than motor vehicles)	(S)	(S)	(S)	(S)	(NA)	(S)	(S)	(S)	(S)	(NA)
Insurance	3,018	2,836	2,332	2,069	(NA)	3.8	3.8	3.5	3.4	(NA)
Public liability and property damage insurance	1,781	1,600	1,352	1,134	(NA)	2.2	2.1	2.0	1.9	(NA)
Insurance for loss of, or damage to, motor vehicles and their cargos	1,072	1,096	859	809	(NA)	1.3	1.5	1.3	1.3	(NA)
Insurance for buildings, offices, structures, and machinery and equipment (other than motor vehicles)	165	140	121	126	(NA)	0.2	0.2	0.2	0.2	(NA)
Maintenance and repair	4,480	4,061	3,503	3,186	(NA)	5.6	5.4	5.2	5.2	(NA)
Motor vehicle parts for self-repair	2,851	2,553	2,253	2,009	(NA)	3.6	3.4	3.3	3.3	(NA)
Trucks, truck-tractors, trailers, and other motor vehicles	1,128	1,040	884	864	(NA)	1.4	1.4	1.3	1.4	(NA)
Buildings, offices, and structures	203	171	152	122	(NA)	0.3	0.2	0.2	0.2	(NA)
Machinery and equipment (other than motor vehicles)	298	(S)	214	191	(NA)	0.4	(S)	0.3	0.3	(NA)
Depreciation	4,190	3,760	3,265	3,058	2,920	5.3	5.0	4.8	5.0	4.8
Trucks, truck-tractors, trailers, and other motor vehicles	3,310	2,990	2,588	2,444	2,289	4.1	4.0	3.8	4.0	3.8
Buildings, offices, and structures	456	408	384	355	(NA)	0.6	0.5	0.6	0.6	(NA)
Machinery and equipment (other than motor vehicles)	424	362	293	259	(NA)	0.5	0.5	0.4	0.4	(NA)
Taxes and licenses	1,960	1,745	1,519	1,578	1,599	2.5	2.3	2.3	2.6	2.6
Drug and alcohol testing and rehabilitation programs	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Other operating expenses	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)

Z Less than .05 percent. NA Not available. S Data do not meet publication standards because of high sampling variability or poor response quality. Some unpublished estimates can be derived from this table by subtracting published data from their respective totals. However, the figures obtained by such subtraction are subject to these same limitations. These unpublished data are for internal use only.

Note: Excludes private motor carriers that operate as auxiliary establishments to nontransportation companies and independent owner-operators with no paid employees. Detail may not add to total due to rounding. Estimates are not adjusted for price changes. Appendix A, table A-5 provides estimated measures of sampling variability (coefficients of variation).

Table 6. Trucking and Courier Services (SIC 421)—Estimated Motor Carrier Revenue, by Size of Shipments, Commodities Handled, and Origin and Destination of Shipments: 1985 Through 1994

[Estimates for years 1988-1994 reflect a benchmarking to the results of the 1992 Census of Transportation, Communications, and Utilities. See the Introduction for a description of the benchmarking process]

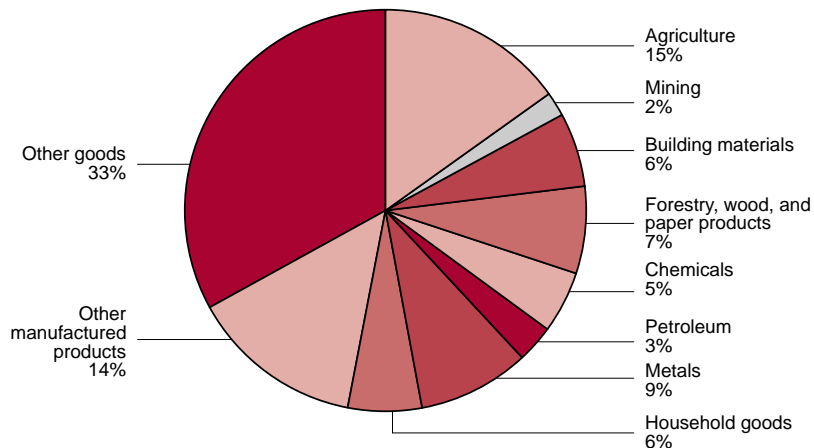
Item	Millions of dollars					Percent change					Percent of total motor carrier revenue				
	1994	1993	1992	1991	1990	1994/ 1993	1993/ 1992	1992/ 1991	1991/ 1990	1990/ 1989	1994	1993	1992	1991	1990
Total motor carrier revenue	149,160	135,383	127,049	117,732	117,122	10.2	6.6	7.9	0.5	8.8	100.0	100.0	100.0	100.0	100.0
Size of Shipments															
Less-than-truckload	55,445	52,075	49,119	46,626	45,710	6.5	6.0	5.3	2.0	9.5	37.2	38.5	38.7	39.6	39.0
Truckload	93,715	83,308	77,930	71,106	71,412	12.5	6.9	9.6	-0.4	8.4	62.8	61.5	61.3	60.4	61.0
Commodities Handled															
Agricultural and food products	21,795	19,941	19,390	17,850	17,103	9.3	2.8	8.6	4.4	10.6	14.6	14.7	15.3	15.2	14.6
Mining products, unrefined	2,631	2,259	1,890	1,748	1,954	16.5	19.5	8.1	-10.5	(S)	1.8	1.7	1.5	1.5	1.7
Building materials	8,904	8,477	7,247	5,966	6,269	5.0	17.0	21.5	-4.8	7.7	6.0	6.3	5.7	5.1	5.4
Forestry, wood, and paper products	10,959	9,304	8,441	7,559	7,261	17.8	10.2	11.7	4.1	14.2	7.3	6.9	6.6	6.4	6.2
Chemicals and allied products	7,049	6,607	6,350	6,071	5,964	6.7	4.0	4.6	1.8	10.5	4.7	4.9	5.0	5.2	5.1
Petroleum and petroleum products	4,044	3,746	3,734	3,954	4,126	8.0	0.3	-5.6	-4.2	6.4	2.7	2.8	2.9	3.4	3.5
Metals and metal products	13,193	12,018	11,038	10,697	10,794	9.8	8.9	3.2	-0.9	9.7	8.8	8.9	8.7	9.1	9.2
Household goods	9,772	8,647	8,144	7,416	7,512	13.0	6.2	9.8	-1.3	3.5	6.6	6.4	6.4	6.3	6.4
Other manufactured products	21,842	18,696	17,109	15,733	15,320	16.8	9.3	8.7	2.7	1.1	14.6	13.8	13.5	13.4	13.1
Other goods	48,971	45,688	43,706	40,738	40,819	7.2	4.5	7.3	-0.2	11.8	32.8	33.7	34.4	34.6	34.9
Origin and Destination of Shipments															
U.S. to U.S.	147,045	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	98.6	(NA)	(NA)	(NA)	(NA)
U.S. to Canada	789	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	0.5	(NA)	(NA)	(NA)	(NA)
Canada to U.S.	664	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	0.4	(NA)	(NA)	(NA)	(NA)
Other	663	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	0.4	(NA)	(NA)	(NA)	(NA)

See footnotes at end of table.

Figure 4.

Trucking and Courier Services (SIC 421)—Estimated Percentages of Motor Carrier Revenue, by Commodities Handled: 1994

Total Motor Carrier Revenue= \$149.2 Billion



Note: See appendix A, table A-6 for estimated measures of sampling variability (coefficients of variation).

Table 6. **Trucking and Courier Services (SIC 421)—Estimated Motor Carrier Revenue, by Size of Shipments, Commodities Handled, and Origin and Destination of Shipments: 1985 Through 1994**—Continued

[Estimates for years 1988-1994 reflect a benchmarking to the results of the 1992 Census of Transportation, Communications, and Utilities. See the Introduction for a description of the benchmarking process]

Item	Millions of dollars					Percent change				Percent of total motor carrier revenue				
	1989	1988	1987	1986	1985	1989/ 1988	1988/ 1987	1987/ 1986	1986/ 1985	1989	1988	1987	1986	1985
Total motor carrier revenue	107,645	100,006	90,716	84,452	80,672	7.6	10.2	7.4	4.7	100.0	100.0	100.0	100.0	100.0
Size of Shipments														
Less-than-truckload	41,740	38,662	35,662	33,038	(NA)	8.0	8.4	7.9	(NA)	38.8	38.7	39.3	39.1	(NA)
Truckload	65,905	61,344	55,054	51,414	(NA)	7.4	11.4	7.1	(NA)	61.2	61.3	60.7	60.9	(NA)
Commodities Handled														
Agricultural and food products	15,463	14,302	13,741	11,420	(NA)	8.1	4.1	20.3	(NA)	14.4	14.3	15.1	13.5	(NA)
Mining products, unrefined	(S)	(S)	(S)	(S)	(NA)	(S)	(S)	(S)	(NA)	(S)	(S)	(S)	(S)	(NA)
Building materials	5,823	5,160	4,249	4,859	(NA)	12.8	21.4	- 12.6	(NA)	5.4	5.2	4.7	5.8	(NA)
Forestry, wood, and paper products	6,356	5,551	4,344	3,649	(NA)	14.5	27.8	19.0	(NA)	5.9	5.6	4.8	4.3	(NA)
Chemicals and allied products	5,397	4,870	3,888	3,688	(NA)	10.8	25.3	5.4	(NA)	5.0	4.9	4.3	4.4	(NA)
Petroleum and petroleum products	3,879	3,802	3,158	3,191	(NA)	2.0	20.4	- 1.0	(NA)	3.6	3.8	3.5	3.8	(NA)
Metals and metal products	9,842	8,536	8,117	7,443	(NA)	15.3	5.2	9.1	(NA)	9.1	8.5	8.9	8.8	(NA)
Household goods	7,256	6,329	6,449	6,838	(NA)	14.6	- 1.9	- 5.7	(NA)	6.7	6.3	7.1	8.1	(NA)
Other manufactured products	15,156	14,775	13,699	13,325	(NA)	2.6	7.9	2.8	(NA)	14.1	14.8	15.1	15.8	(NA)
Other goods	36,521	34,778	31,557	28,690	(NA)	5.0	10.2	10.0	(NA)	33.9	34.8	34.8	34.0	(NA)
Origin and Destination of Shipments														
U.S. to U.S.	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
U.S. to Canada	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Canada to U.S.	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Other	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)

S Data do not meet publication standards because of high sampling variability or poor response quality. Some unpublished estimates can be derived from this table by subtracting published data from their respective totals. However, the figures obtained by such subtraction are subject to these same limitations. These unpublished data are for internal use only. NA Not available.

Note: Excludes private motor carriers that operate as auxiliary establishments to nontransportation companies and independent owner-operators with no paid employees. Detail may not add to total due to rounding. Estimates are not adjusted for price changes. Appendix A, table A-6 provides estimated measures of sampling variability (coefficients of variation).

Table 7. **Trucking and Courier Services (SIC 421)—Estimated Inventories of Revenue Generating Equipment, by Type of Carrier, as of December 31: 1985 Through 1994**

Equipment	All carriers			Specialty carriers			General carriers		
	Total	Owned	Leased	Total	Owned	Leased	Total	Owned	Leased
Trucks									
Units (Thousands)									
1994	287	247	(S)	147	120	(S)	140	127	13
1993	260	224	(S)	131	105	(S)	129	119	10
1992	246	211	(S)	112	89	(S)	134	122	12
1991	235	197	38	103	79	24	132	118	14
1990	230	193	37	103	78	25	127	115	12
Percent change									
1994/1993	10.4	10.3	(S)	12.2	14.3	(S)	8.5	6.7	30.0
1993/1992	5.7	6.2	(S)	17.0	18.0	(S)	- 3.7	- 2.5	- 16.7
1992/1991	4.7	7.1	(S)	8.7	12.7	(S)	1.5	3.4	- 14.3
1991/1990	2.2	2.1	2.7	-	1.3	- 4.0	3.9	2.6	16.7
1990/1989	0.9	- 2.0	19.4	2.0	- 3.7	(S)	-	- 0.9	(S)
Truck-tractors									
Units (Thousands)									
1994	681	535	146	133	103	30	548	432	116
1993	622	491	131	129	100	29	493	391	102
1992	575	453	122	110	85	25	465	368	97
1991	538	430	108	110	86	24	428	344	84
1990	539	432	107	113	88	25	426	344	82
Percent change									
1994/1993	9.5	9.0	11.5	3.1	3.0	3.4	11.2	10.5	13.7
1993/1992	8.2	8.4	7.4	17.3	17.6	16.0	6.0	6.3	5.2
1992/1991	6.9	5.3	13.0	-	- 1.2	4.2	8.6	7.0	15.5
1991/1990	- 0.2	- 0.5	0.9	- 2.7	- 2.3	- 4.0	0.5	-	2.4
1990/1989	1.1	2.4	- 3.6	- 2.6	- 2.2	(S)	2.2	3.6	- 3.5
Trailers (Full and semi)									
Units (Thousands)									
1994	1,456	1,227	229	212	178	34	1,244	1,049	195
1993	1,337	1,118	219	200	170	30	1,137	948	189
1992	1,276	1,055	221	202	175	27	1,074	880	194
1991	1,227	1,018	209	210	182	28	1,017	836	181
1990	1,215	1,022	193	219	193	26	996	829	167
Percent change									
1994/1993	8.9	9.7	4.6	6.0	4.7	13.3	9.4	10.7	3.2
1993/1992	4.8	6.0	- 0.9	- 1.0	- 2.9	11.1	5.9	7.7	- 2.6
1992/1991	4.0	3.6	5.7	- 3.8	- 3.8	- 3.6	5.6	5.3	7.2
1991/1990	1.0	- 0.4	8.3	- 4.1	- 5.7	7.7	2.1	0.8	8.4
1990/1989	3.1	3.4	1.6	1.4	3.2	(S)	3.5	3.5	3.7

See footnotes at end of table.

Table 7. **Trucking and Courier Services (SIC 421)—Estimated Inventories of Revenue Generating Equipment, by Type of Carrier, as of December 31: 1985 Through 1994—Continued**

Equipment	All carriers			Specialty carriers			General carriers		
	Total	Owned	Leased	Total	Owned	Leased	Total	Owned	Leased
Trucks									
Units (Thousands)									
1989	228	197	31	101	81	(S)	127	116	(S)
1988	232	205	27	103	86	(S)	129	119	(S)
1987	226	200	26	93	76	17	133	124	(S)
1986	201	178	23	80	65	(S)	121	113	(S)
1985	216	187	29	98	77	21	(S)	110	(S)
Percent change									
1989/1988	- 1.7	- 3.9	14.8	- 1.9	- 5.8	(S)	- 1.6	- 2.5	(S)
1988/1987	2.7	2.5	3.8	10.8	13.2	(S)	- 3.0	- 4.0	(S)
1987/1986	12.4	12.4	13.0	16.3	16.9	(S)	9.9	9.7	(S)
1986/1985	- 6.9	- 4.8	- 20.7	- 18.4	- 15.6	(S)	(S)	2.7	(S)
Truck-tractors									
Units (Thousands)									
1989	533	422	111	116	90	(S)	417	332	85
1988	520	395	125	113	86	(S)	407	309	98
1987	501	354	147	118	81	(S)	383	273	(S)
1986	462	331	131	118	79	(S)	344	252	92
1985	468	341	127	118	82	(S)	350	259	(S)
Percent change									
1989/1988	2.5	6.8	- 11.2	2.7	4.7	(S)	2.5	7.4	- 13.3
1988/1987	3.8	11.6	- 15.0	- 4.2	6.2	(S)	6.3	13.2	(S)
1987/1986	8.4	6.9	12.2	-	2.5	(S)	11.3	8.3	(S)
1986/1985	- 1.3	- 2.9	3.1	-	- 3.7	(S)	- 1.7	- 2.7	(S)
Trailers (Full and semi)									
Units (Thousands)									
1989	1,178	988	190	216	187	(S)	962	801	161
1988	1,151	969	182	205	174	(S)	946	795	151
1987	1,081	894	187	215	177	(S)	866	717	149
1986	1,055	881	174	186	157	(S)	869	724	(S)
1985	1,011	838	173	180	156	24	831	682	149
Percent change									
1989/1988	2.3	2.0	4.4	5.4	7.5	(S)	1.7	0.8	6.6
1988/1987	6.5	8.4	- 2.7	- 4.7	- 1.7	(S)	9.2	10.9	1.3
1987/1986	2.5	1.5	7.5	15.6	12.7	(S)	- 0.3	- 1.0	(S)
1986/1985	4.4	5.1	0.6	3.3	0.6	(S)	4.6	6.2	(S)

S Data do not meet publication standards because of high sampling variability or poor response quality. Some unpublished estimates can be derived from this table by subtracting published data from their respective totals. However, the figures obtained by such subtraction are subject to these same limitations. These unpublished data are for internal use only. - Represents zero.

Note: Excludes private motor carriers that operate as auxiliary establishments to nontransportation companies and independent owner-operators with no paid employees. Detail may not add to total due to rounding. Estimates are not adjusted for price changes. Appendix A, table A-7 provides estimated measures of sampling variability (coefficients of variation).

Public Warehousing Services

Summary of Data

Total operating revenue for public warehousing services (SIC 422) increased 9.4 percent from 1993 to \$9.9 billion. Total operating expenses rose 8.5 percent to \$8.3 billion. Annual payroll was up 7.4 percent to 2.5 billion and represented more than 30 percent of the warehousing industry's total operating expenses.

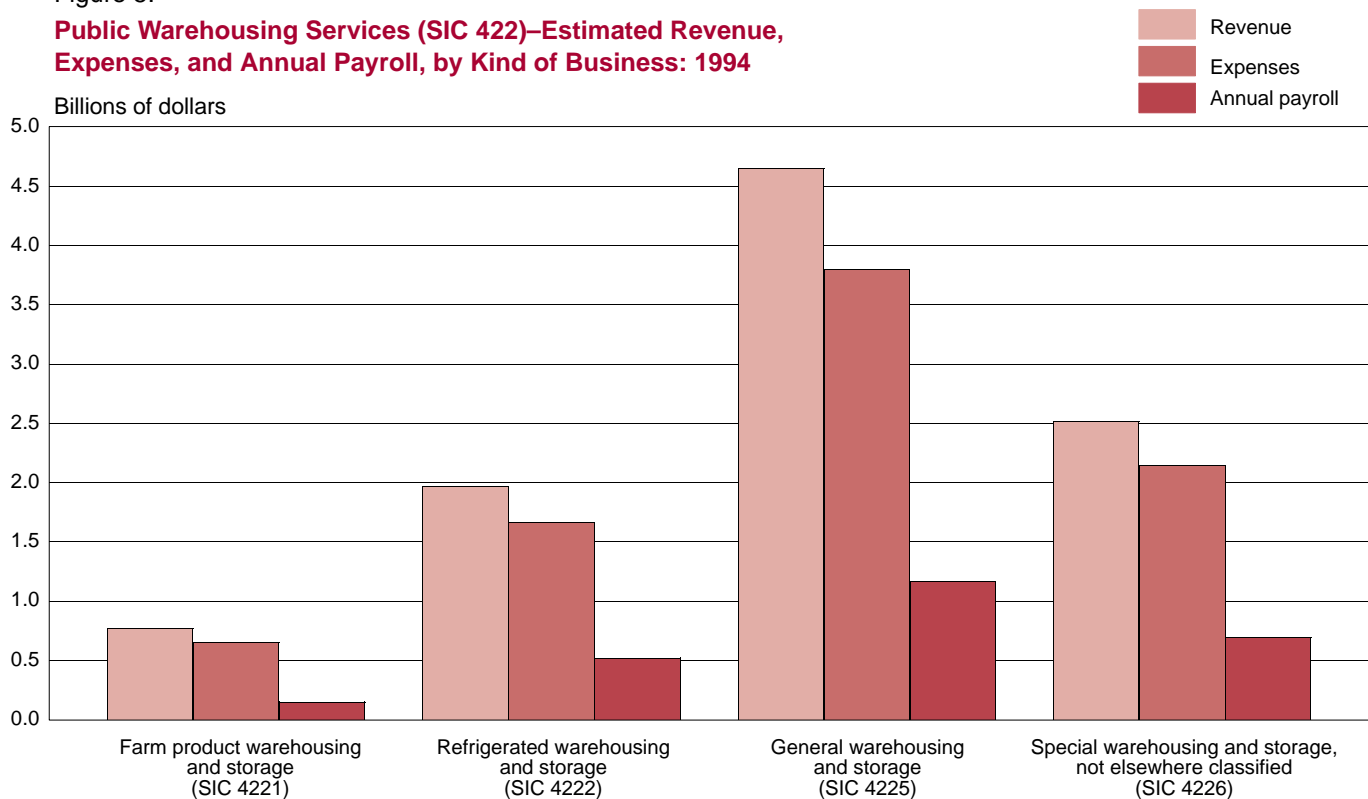
Nearly 47 percent of all public warehousing services revenue (SIC 422) was from general warehousing

and storage (SIC 4225). Revenue from refrigerated warehousing and storage (SIC 4222) increased 9.1 percent to \$2 billion. It accounted for almost 20 percent of the warehousing industry's total operating revenue in 1994.

Total operating revenue in 1994 for farm product warehousing and storage (SIC 4221) represents nearly 8 percent of the warehousing industry's total operating revenue. It increased 7.7 percent to \$773 million from 1993, while expenses for the industry were up 6.0 percent to \$652 million over the same period.

Figure 5.

Public Warehousing Services (SIC 422)—Estimated Revenue, Expenses, and Annual Payroll, by Kind of Business: 1994



Note: See appendix A, table A-8 for estimated measures of sampling variability (coefficients of variation). Estimates are not adjusted for price changes. Expenses include annual payroll.

Table 8. Public Warehousing Services (SIC 422)—Estimated Operating Revenue and Expenses, by Kind of Business: 1985 Through 1994—Continued

[Estimates for years 1988-1994 reflect a benchmarking to the results of the 1992 Census of Transportation, Communications, and Utilities. See the Introduction for a description of the benchmarking process]

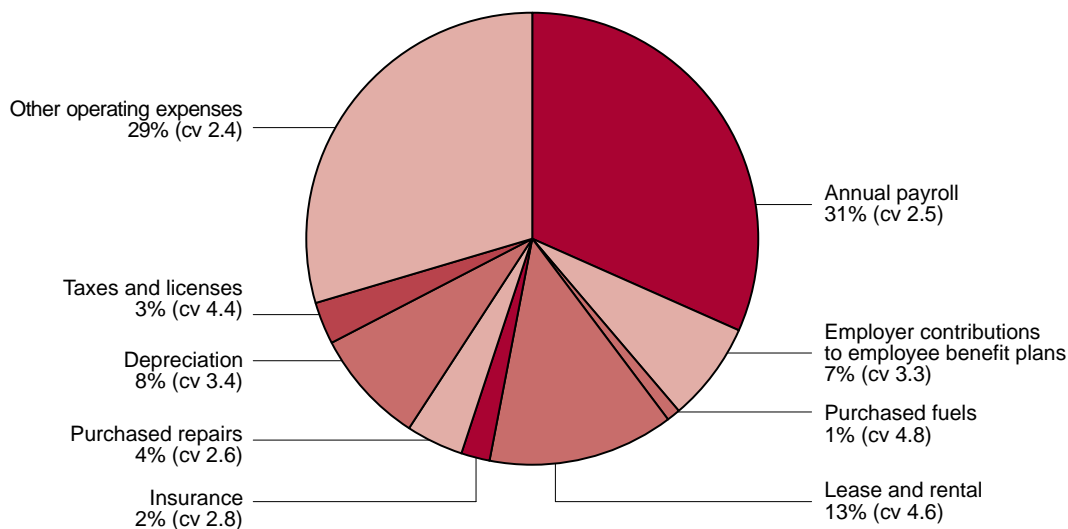
Item	Total operating revenue	Operating expenses									
		Total operating expenses	Annual payroll	Employer contributions to Social Security and other supplemental benefits	Purchased fuels	Lease and rental	Insurance	Purchased repairs	Depreciation	Taxes and licenses	Other operating expenses
Special Warehousing and Storage (SIC 4226)											
Millions of dollars											
1994	2,516	2,149	696	157	40	280	58	98	197	84	539
1993	2,181	1,869	612	139	33	209	54	88	183	80	471
1992	2,009	1,744	551	127	28	185	50	80	183	66	474
1991	1,752	1,520	472	115	25	174	47	72	166	58	391
1990	1,796	1,540	478	117	26	165	45	76	180	(S)	408
Percent change											
1994/1993	15.4	15.0	13.7	12.9	21.2	34.0	7.4	11.4	7.7	5.0	14.4
1993/1992	8.6	7.2	11.1	9.4	17.9	13.0	8.0	10.0	-	21.2	- 0.6
1992/1991	14.7	14.7	16.7	10.4	12.0	6.3	6.4	11.1	10.2	13.8	21.2
1991/1990	- 2.4	- 1.3	- 1.3	- 1.7	- 3.8	5.5	4.4	- 5.3	- 7.8	(S)	- 4.2
1990/1989	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)

See footnotes at end of table.

Figure 6.

Public Warehousing Services (SIC 422)—Estimated Percentages of Operating Expenses, by Type: 1994

Total Operating Expenses= \$8.3 Billion



cv Estimated coefficient of variation

Table 8. Public Warehousing Services (SIC 422)—Estimated Operating Revenue and Expenses, by Kind of Business: 1985 Through 1994—Continued

[Estimates for years 1988-1994 reflect a benchmarking to the results of the 1992 Census of Transportation, Communications, and Utilities. See the Introduction for a description of the benchmarking process]

Item	Total operating revenue	Operating expenses									
		Total operating expenses	Annual payroll	Employer contributions to Social Security and other supplemental benefits	Purchased fuels	Lease and rental	Insurance	Purchased repairs	Depreciation	Taxes and licenses	Other operating expenses
Special Warehousing and Storage (SIC 4226)											
Millions of dollars											
1989	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
1988	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
1987	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
1986	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
1985	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Percent change											
1989/1988	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
1988/1987	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
1987/1986	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
1986/1985	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)

- Represents zero. NA Not available. S Data do not meet publication standards because of high sampling variability or poor response quality. Some unpublished estimates can be derived from this table by subtracting published data from their respective totals. However, the figures obtained by such subtraction are subject to these same limitations. These unpublished data are for internal use only.

Note: Detail may not add to total due to rounding. Estimates are not adjusted for price changes. Appendix A, table A-8 provides estimated measures of sampling variability (coefficients of variation).

Appendix A. Measures of Sampling Variability

RELIABILITY OF DATA

There are two types of errors possible in an estimate based on a sample survey—sampling and nonsampling. Sampling errors occur because observations are made on a sample, not on the entire population. Nonsampling errors can be attributed to many sources in the collection and processing of the data. The accuracy of a survey result is determined by the joint effect of sampling and nonsampling errors.

MEASURES OF SAMPLING VARIABILITY

Because the estimates were based on a sample, exact agreement with the results that would be obtained from a complete census of the trucking and warehousing industries using the same enumeration procedure was not expected. However, because each firm in the United States in the specified Standard Industrial Classifications (SIC's) had a chance of being selected for the sample and because the probability of selection for each firm in the sample was known, it was possible to estimate the sampling variability of the estimates made from the sample.

The standard error of the estimate is a measure of the variability among the estimates from all possible samples of the same size and design and, thus, is a measure of the precision with which an estimate from a particular sample approximates the results of a complete enumeration. The coefficient of variation (expressed as a percent) is the standard error of the estimate times 100 percent divided by the value being estimated. Note that measures of sampling variability, such as the standard error or coefficient of variation, are estimated from the sample and are also subject to sampling variability. Coefficients of variation for dollar volume estimates and year-to-year ratios are shown in tables A-1 through A-8 in this appendix.

The coefficients of variation presented in these tables permit certain confidence statements about the sample estimates. The particular sample used in this survey was one of a large number of samples of the same size that could have been selected using the same design. In about two out of three of these samples, the estimates would differ from a complete enumeration by less than the corresponding percentages for that estimate shown in the sampling variability tables. In about 9 out of 10 of these samples, the estimates would differ from the results of a complete enumeration by less than 1.65 times the percentages shown.

To illustrate the computations involved in the above confidence statements as related to dollar volume estimates, assume that an estimate of revenue published in table 1 of this publication is \$10.7 million for a particular year and that the coefficient of variation for this estimate, as given in table A-1 of this appendix, is 1.8 percent or 0.018. Multiplying \$10.7 million by 0.018 yields \$193 thousand. Therefore, a 67-percent confidence interval is \$10.5 million to \$10.9 million (\$10.7 million plus or minus \$193 thousand). If corresponding confidence intervals were constructed for all possible samples of the same size and design, approximately 2 out of 3 (67 percent) of the intervals would contain the figure obtained from a complete enumeration. Typical practice is to construct a 90- or 95-percent confidence interval. Using the same illustration, a 90-percent confidence interval would be \$10.4 million to \$11.2 million (\$10.7 million plus or minus \$318 thousand). The \$318 thousand is computed by multiplying \$10.7 million by 0.018 by 1.65).

NONSAMPLING ERRORS

As calculated for this report, the coefficient of variation measures sampling errors but does not measure all nonsampling error in the data. Nonsampling error consists of both a variance component and a bias component. Bias is the difference, averaged over all possible samples of the same size and design, between the estimate and the true value being estimated.

Nonsampling errors can be attributed to many sources: (1) inability to obtain information about all cases in the sample, (2) response errors, (3) definitional difficulties, (4) differences in the interpretation of questions, (5) mistakes in recording or coding the data obtained, and (6) other errors of collection, response, coverage, and estimation for missing data. These nonsampling errors also occur in complete censuses.

Although no direct measurement of the biases due to nonsampling errors has been obtained, precautionary steps were taken in all phases of the collection, processing, and tabulation of the data in an effort to minimize their influence.

The major source of bias in the published estimates is due to imputing for nonrespondents, for late reporters, and for data which failed edit. For all kinds of business combined, imputed revenue amounts to about 16 percent of the national revenue estimates.

Table A-1. **Motor Freight Transportation and Warehousing Services (SIC 42)—Estimated Coefficients of Variation for Summary Statistics, by Kind of Business: 1993 and 1994**

Item	Motor freight transportation and warehousing services (SIC 42)	Trucking and courier services, except by air (SIC 421)	Local trucking without storage (SIC 4212)	Trucking, except local (SIC 4213)	Local trucking with storage (SIC 4214)	Courier services, except by air (SIC 4215)	Public warehousing and storage (SIC 422)	Farm product warehousing and storage (SIC 4221)	Refrigerated warehousing and storage (SIC 4222)	General warehousing and storage (SIC 4225)	Special warehousing and storage (SIC 4226)
Total Operating Revenue											
Dollar volume											
1994	1.7	1.8	4.0	2.4	12.2	3.8	4.0	7.9	4.9	7.0	7.7
1993	1.6	1.7	3.9	2.0	11.5	4.3	4.4	8.2	4.5	7.7	8.6
Year-to-year ratio 1994/1993 ..	0.5	0.6	1.3	0.6	4.4	1.1	1.6	1.8	0.9	2.6	4.1
Total Operating Expenses											
Dollar volume											
1994	1.8	1.9	4.2	2.4	12.2	3.8	4.1	9.0	4.1	7.5	7.5
1993	1.7	1.7	4.1	2.1	11.4	4.4	4.4	8.3	3.9	8.0	8.3
Year-to-year ratio 1994/1993 ..	0.5	0.5	1.4	0.6	4.4	1.3	1.6	2.1	1.0	2.2	4.8
Annual Payroll											
Dollar volume											
1994	1.6	1.7	4.3	2.2	13.3	2.7	3.6	9.6	3.9	4.9	9.6
1993	1.4	1.4	3.7	1.6	13.8	3.2	3.9	9.1	3.8	5.8	10.2
Year-to-year ratio 1994/1993 ..	0.6	0.6	1.9	0.7	3.3	1.0	1.9	2.1	2.0	3.0	4.3
Employer Contributions to Social Security and Other Supplemental Benefits											
Dollar volume											
1994	1.7	1.8	5.4	2.4	14.6	2.6	3.4	9.3	4.7	3.5	10.3
1993	1.4	1.4	4.5	1.8	13.3	2.4	3.4	9.3	4.1	4.2	10.3
Year-to-year ratio 1994/1993 ..	0.8	0.8	3.7	0.8	5.8	0.8	1.7	3.3	1.3	2.8	4.0

Note: Estimated coefficients of variation have not been computed for revised estimates prior to 1993 but approximate those previously published.

Table A-2. **Motor Freight Transportation and Warehousing Services (SIC 42)—Estimated Coefficients of Variation for Corporate Revenue, Expenses, and Annual Payroll, by Kind of Business: 1994**

SIC code	Kind of business	Total operating revenue (Dollar volume)	Percent of total operating revenue	Total operating expenses (Dollar volume)	Percent of total operating expenses	Annual payroll (Dollar volume)	Percent of annual payroll
42	Motor freight transportation and warehousing services	1.7	0.8	1.8	0.8	1.6	0.7
421	Trucking and courier services, except by air	1.8	0.8	1.9	0.8	1.7	0.7
4212	Local trucking without storage	4.0	2.7	4.2	2.7	4.3	3.4
4213	Trucking, except local	2.4	0.7	2.4	0.7	2.2	0.4
4214	Local trucking with storage	12.2	1.8	12.2	2.0	13.3	1.5
4215	Courier services, except by air	3.8	0.5	3.8	0.4	2.7	0.2
422	Public warehousing and storage	4.0	1.6	4.1	1.3	3.6	1.2
4221	Farm product warehousing and storage ...	7.9	4.6	9.0	4.8	9.6	3.2
4222	Refrigerated warehousing and storage	4.9	1.0	4.1	1.1	3.9	1.3
4225	General warehousing and storage	7.0	3.4	7.5	2.6	4.9	2.4
4226	Special warehousing and storage	7.7	1.8	7.5	1.6	9.6	1.4

Table A-3. **Trucking and Courier Services (SIC 421)—Estimated Coefficients of Variation for Operating Revenue and Expenses for All Carriers, by Kind of Business: 1993 and 1994**

Item	All carriers (Dollar volume)									
	Trucking and courier services, except by air (SIC 421)		Local trucking without storage (SIC 4212)		Trucking, except local (SIC 4213)		Local trucking with storage (SIC 4214)		Courier services, except by air (SIC 4215)	
	1994	1993	1994	1993	1994	1993	1994	1993	1994	1993
Operating Revenue										
Total	1.8	1.7	4.0	3.9	2.4	2.0	12.2	11.5	3.8	4.3
Motor carrier	1.9	1.8	4.1	4.1	2.6	2.2	12.9	12.6	3.8	4.3
Local trucking	3.2	3.2	3.9	3.8	6.2	6.1	13.0	14.4	18.2	17.7
Long-distance trucking	2.2	2.1	8.7	8.8	2.7	2.3	18.4	17.6	3.4	4.2
Operating Expenses										
Total	1.9	1.7	4.2	4.1	2.4	2.1	12.2	11.4	3.8	4.4
Annual payroll	1.7	1.4	4.3	3.7	2.2	1.6	13.3	13.8	2.7	3.2
Employer contributions to Social Security and other supplemental benefits	1.8	1.4	5.4	4.5	2.4	1.8	14.6	13.3	2.6	2.4
Purchased fuels	3.1	3.1	6.0	6.1	4.1	3.8	20.3	19.3	6.7	9.5
Purchased transportation	3.1	3.4	10.9	11.8	3.1	3.4	14.3	11.5	12.4	12.2
Lease and rental	3.3	3.2	5.2	5.6	5.6	4.7	14.9	16.3	4.2	5.0
Insurance	2.8	2.7	6.0	5.2	3.3	3.3	14.8	12.7	8.6	11.3
Maintenance and repair	2.7	2.7	5.5	5.1	3.5	3.5	15.4	15.4	5.4	6.4
Depreciation	3.4	3.0	6.4	5.8	4.8	4.2	21.7	20.5	3.9	4.5
Taxes and licenses	3.0	2.7	6.2	5.4	4.0	3.7	13.6	11.6	3.8	3.9
Drug and alcohol testing and rehabilitation programs	6.1	6.7	15.9	17.2	4.6	6.2	(S)	(S)	(S)	(S)
Other operating expenses	2.6	2.7	5.6	5.3	3.1	3.4	14.1	13.2	5.7	6.6

S Data do not meet publication standards because of high sampling variability or poor response quality.

Note: Estimated coefficients of variation have not been computed for revised estimates prior to 1993 but approximate those previously published.

Table A-4. **Trucking and Courier Services (SIC 421)—Estimated Coefficients of Variation for Operating Revenue and Expenses, by Type of Carrier: 1993 and 1994**

Item	Dollar volume		Year-to-year ratio 1994/1993
	1994	1993	
ALL CARRIERS			
Operating Revenue			
Total	1.8	1.7	0.6
Motor carrier	1.9	1.8	0.6
Local trucking	3.2	3.2	1.5
Long-distance trucking	2.2	2.1	0.7
Operating Expenses			
Total	1.9	1.7	0.5
Annual payroll	1.7	1.4	0.6
Employer contributions to Social Security and other supplemental benefits	1.8	1.4	0.8
Purchased fuels	3.1	3.1	1.3
Purchased transportation	3.1	3.4	1.4
Lease and rental	3.3	3.2	1.3
Insurance	2.8	2.7	1.0
Maintenance and repair	2.7	2.7	1.2
Depreciation	3.4	3.0	1.4
Taxes and licenses	3.0	2.7	1.4
Drug and alcohol testing and rehabilitation programs	6.1	6.7	4.9
Other operating expenses	2.6	2.7	1.5
SPECIALTY CARRIERS			
Operating Revenue			
Total	3.5	3.6	0.9
Motor carrier	3.3	3.5	1.1
Local trucking	4.3	4.9	1.8
Long-distance trucking	5.2	5.4	1.4
Operating Expenses			
Total	3.5	3.6	1.0
Annual payroll	4.7	4.7	1.8
Employer contributions to Social Security and other supplemental benefits	5.2	4.8	3.0
Purchased fuels	5.2	5.4	2.9
Purchased transportation	5.8	6.4	2.7
Lease and rental	6.1	6.3	2.6
Insurance	4.9	4.7	1.6
Maintenance and repair	4.2	4.3	2.3
Depreciation	4.2	4.6	3.3
Taxes and licenses	5.1	5.4	2.8
Drug and alcohol testing and rehabilitation programs	9.4	9.4	8.2
Other operating expenses	4.2	4.6	2.4
GENERAL CARRIERS			
Operating Revenue			
Total	2.7	2.5	0.7
Motor carrier	2.7	2.5	0.7
Local trucking	5.9	5.5	2.8
Long-distance trucking	2.7	2.6	0.8
Operating Expenses			
Total	2.7	2.6	0.7
Annual payroll	2.2	2.0	0.8
Employer contributions to Social Security and other supplemental benefits	2.2	2.0	0.9
Purchased fuels	4.4	4.3	1.3
Purchased transportation	4.5	4.6	1.9
Lease and rental	4.6	4.3	1.6
Insurance	4.1	4.3	1.2
Maintenance and repair	4.2	4.0	1.4
Depreciation	4.9	4.5	1.7
Taxes and licenses	4.1	3.8	1.7
Drug and alcohol testing and rehabilitation programs	8.5	9.3	5.1
Other operating expenses	4.8	4.6	1.6

Note: Estimated coefficients of variation have not been computed for revised estimates prior to 1993 but approximate those previously published.

Table A-5. **Trucking and Courier Services (SIC 421)—Estimated Coefficients of Variation for Components of Operating Expenses, by Type of Carrier: 1993 and 1994**

Item	All carriers				Specialty carriers				General carriers			
	Dollar volume		Percent of total operating expenses		Dollar volume		Percent of total operating expenses		Dollar volume		Percent of total operating expenses	
	1994	1993	1994	1993	1994	1993	1994	1993	1994	1993	1994	1993
Operating Expenses												
Total	1.9	1.7	(X)	(X)	3.5	3.6	(X)	(X)	2.7	2.6	(X)	(X)
Annual payroll	1.7	1.4	1.3	1.3	4.7	4.7	2.8	3.1	2.2	2.0	2.3	2.2
Employer contributions to Social Security and other supplemental benefits	1.8	1.4	1.6	1.5	5.2	4.8	3.5	3.3	2.2	2.0	2.6	2.5
Plans required under Federal and State legislation	2.2	1.7	1.8	1.7	5.5	5.5	3.7	3.8	2.7	2.3	2.7	2.6
Other fringe benefit plans	1.7	1.5	1.8	1.6	6.2	4.8	5.1	3.9	2.2	2.0	2.9	2.7
Purchased fuels	3.1	3.1	1.8	2.0	5.2	5.4	3.9	4.1	4.4	4.3	2.1	2.2
Trucks, truck-tractors, and other motor vehicles	3.2	3.1	1.9	2.1	5.3	5.6	4.0	4.3	4.5	4.3	2.2	2.3
Heat, power, and generating electricity	5.2	4.2	5.3	4.1	8.8	8.6	8.3	7.9	7.1	6.0	6.8	5.5
Purchased transportation	3.1	3.4	2.2	2.5	5.8	6.4	4.5	5.1	4.5	4.6	3.1	3.1
Trucks, truck-tractors, trailers, and other motor vehicles rented or leased with drivers ..	4.5	4.8	3.7	4.0	6.8	8.2	5.8	7.2	6.0	5.7	4.6	4.4
Trucks, truck-tractors, trailers, and other motor vehicles rented or leased without drivers	8.9	8.1	9.0	8.1	10.6	8.8	10.1	8.4	11.6	11.2	11.2	10.6
Transportation purchased from railroads, airlines, water, and other motor carriers	4.5	4.9	4.2	4.6	(S)	(S)	(S)	(S)	4.6	4.6	4.8	4.8
Lease and rental	3.3	3.2	3.1	2.9	6.1	6.3	4.7	4.8	4.6	4.3	4.1	3.6
Buildings, offices, and structures	3.7	3.4	3.7	3.2	7.0	7.2	5.8	5.8	4.9	4.4	4.5	3.8
Machinery and equipment (other than motor vehicles) ..	4.3	4.5	3.8	4.1	8.6	9.1	7.6	8.4	6.3	5.9	5.5	5.2
Insurance	2.8	2.7	1.6	1.5	4.9	4.7	3.1	2.8	4.1	4.3	2.0	2.1
Public liability and property damage insurance	3.5	3.3	2.5	2.2	6.5	5.9	5.2	4.6	4.6	4.7	2.6	2.9
Insurance for loss of, or damage to, motor vehicles and their cargos	3.1	3.2	2.4	2.5	5.2	5.2	4.1	3.8	4.8	5.0	3.2	3.3
Insurance for buildings, offices, structures, and machinery and equipment (other than motor vehicles)	7.1	6.4	7.3	6.3	12.1	12.2	11.0	11.0	10.2	8.0	10.5	7.7
Maintenance and repair	2.7	2.7	1.6	1.6	4.2	4.3	3.4	3.1	4.2	4.0	2.1	2.1
Motor vehicle parts for self-repair	3.4	3.6	2.5	2.8	5.5	5.8	5.6	6.0	4.7	4.6	3.0	3.0
Trucks, truck-tractors, trailers, and other motor vehicles	3.7	2.9	2.9	2.1	5.8	6.7	4.6	5.1	6.0	4.7	4.5	3.2
Buildings, offices, and structures	5.3	6.1	5.1	5.9	7.2	10.4	6.2	9.3	7.6	8.0	7.0	7.2
Machinery and equipment (other than motor vehicles) ..	4.3	4.9	4.5	4.8	10.3	10.8	8.9	9.3	4.6	5.0	4.2	4.6
Depreciation	3.4	3.0	2.0	1.9	4.2	4.6	3.0	3.4	4.9	4.5	2.8	2.6
Trucks, truck-tractors, trailers, and other motor vehicles	4.0	3.5	2.7	2.5	4.9	5.1	4.1	4.3	5.6	5.2	3.5	3.3
Buildings, offices, and structures	2.3	2.4	1.9	2.0	6.4	7.3	5.0	5.3	3.8	3.9	3.4	3.4
Machinery and equipment (other than motor vehicles) ..	3.9	4.4	3.5	4.0	6.3	7.1	5.5	6.2	5.4	6.4	4.6	5.7
Taxes and licenses	3.0	2.7	1.9	2.0	5.1	5.4	3.9	4.2	4.1	3.8	2.2	2.3
Drug and alcohol testing and rehabilitation programs	6.1	6.7	5.1	5.9	9.4	9.4	8.2	8.1	8.5	9.3	6.8	7.7
Other operating expenses	2.6	2.7	1.9	1.9	4.2	4.6	2.9	2.9	4.8	4.6	3.2	2.9

X Not applicable. S Data do not meet publication standards because of high sampling variability or poor response quality.

Note: Estimated coefficients of variation have not been computed for revised estimates prior to 1993 but approximate those previously published.

Table A-6. **Trucking and Courier Services (SIC 421)—Estimated Coefficients of Variation for Motor Carrier Revenue, by Size of Shipments, Commodities Handled, and Origin and Destination of Shipments: 1993 and 1994**

Item	Dollar volume		Year-to-year ratio 1994/1993	Percent of total motor carrier revenue	
	1994	1993		1994	1993
Total motor carrier revenue	1.9	1.8	0.6	(X)	(X)
Size of Shipments					
Less-than-truckload	2.5	2.5	0.8	2.2	2.0
Truckload	2.6	2.3	0.7	1.3	1.3
Commodities Handled					
Agricultural and food products	4.5	4.3	2.1	3.7	3.9
Mining products, unrefined	16.4	16.2	6.9	16.5	16.2
Building materials	8.8	7.8	3.4	8.8	7.7
Forestry, wood, and paper products	5.1	6.2	3.0	4.5	5.6
Chemicals and allied products	5.3	5.0	2.2	5.4	5.1
Petroleum and petroleum products	8.6	7.9	3.9	8.6	7.7
Metals and metal products	6.3	5.6	2.8	5.9	5.3
Household goods	6.2	6.3	3.4	5.8	5.9
Other manufactured products	4.6	5.0	2.4	3.4	3.9
Other goods	2.1	2.2	1.2	2.0	2.1
Origin and Destination of Shipments					
U.S. to U.S.	1.9	(NA)	(NA)	0.1	(NA)
U.S. to Canada	4.7	(NA)	(NA)	5.0	(NA)
Canada to U.S.	8.7	(NA)	(NA)	8.5	(NA)
Other	9.3	(NA)	(NA)	9.9	(NA)

X Not applicable. NA Not available.

Note: Estimated coefficients of variation have not been computed for revised estimates prior to 1993 but approximate those previously published.

Table A-7. **Trucking and Courier Services (SIC 421)—Estimated Coefficients of Variation for Inventories of Revenue Generating Equipment, by Type of Carrier, as of December 31: 1993 and 1994**

Equipment	All carriers			Specialty carriers			General carriers		
	Total	Owned	Leased	Total	Owned	Leased	Total	Owned	Leased
Trucks									
1994	6.1	6.4	(S)	11.4	12.2	(S)	4.6	5.0	16.0
1993	3.9	4.4	(S)	6.9	8.1	(S)	5.2	5.2	19.8
Year-to-year ratio 1994/1993	3.7	3.7	(S)	6.1	6.4	(S)	3.0	2.5	13.1
Truck-tractors									
1994	3.3	3.8	5.5	7.2	6.7	15.0	4.2	4.7	6.0
1993	3.3	3.7	4.7	6.6	6.4	12.4	4.1	4.6	5.5
Year-to-year ratio 1994/1993	1.3	1.5	3.8	3.0	3.1	6.7	1.8	1.8	5.4
Trailers (Full and semi)									
1994	3.3	3.5	6.6	6.6	6.7	14.5	4.1	4.2	8.1
1993	3.1	3.1	6.4	5.8	6.1	14.5	3.8	3.7	8.0
Year-to-year ratio 1994/1993	0.7	1.0	2.7	3.6	3.3	11.8	0.9	1.2	2.9

S Data do not meet publication standards because of high sampling variability or poor response quality.

Note: Estimated coefficients of variation have not been computed for revised estimates prior to 1993 but approximate those previously published.

Table A-8. **Public Warehousing Services (SIC 422)—Estimated Coefficients of Variation for Operating Revenue and Expenses, by Kind of Business: 1993 and 1994**

Item	Total operating revenue	Operating expenses									
		Total operating expenses	Annual payroll	Employer contributions to Social Security and other supplemental benefits	Purchased fuels	Lease and rental	Insurance	Purchased repairs	Depreciation	Taxes and licenses	Other operating expenses
Public Warehousing and Storage (SIC 422)											
Dollar volume											
1994	4.0	4.1	3.6	3.4	6.1	7.3	5.2	3.9	6.1	6.4	5.3
1993	4.4	4.4	3.9	3.4	5.5	7.4	5.1	4.4	5.8	6.5	5.6
Year-to-year ratio 1994/1993 ..	1.6	1.6	1.9	1.7	3.8	3.5	1.7	2.1	1.9	2.5	1.9
Farm Product Warehousing and Storage (SIC 4221)											
Dollar volume											
1994	7.9	9.0	9.6	9.3	8.2	9.4	7.6	6.2	11.2	7.4	11.4
1993	8.2	8.3	9.1	9.3	8.0	9.7	7.0	9.7	11.0	7.1	10.4
Year-to-year ratio 1994/1993 ..	1.8	2.1	2.1	3.3	2.8	4.4	4.2	6.0	1.8	3.0	3.2
Refrigerated Warehousing and Storage (SIC 4222)											
Dollar volume											
1994	4.9	4.1	3.9	4.7	12.4	8.6	6.6	6.1	6.1	4.2	4.9
1993	4.5	3.9	3.8	4.1	11.8	8.5	6.1	6.0	5.3	4.9	4.7
Year-to-year ratio 1994/1993 ..	0.9	1.0	2.0	1.3	7.7	2.6	2.0	1.1	1.4	2.8	1.9
General Warehousing and Storage (SIC 4225)											
Dollar volume											
1994	7.0	7.5	4.9	3.5	10.6	11.4	9.8	7.9	14.4	11.0	10.6
1993	7.7	8.0	5.8	4.2	11.5	11.9	9.3	9.6	12.8	10.5	10.8
Year-to-year ratio 1994/1993 ..	2.6	2.2	3.0	2.8	5.1	2.2	3.5	4.3	4.3	4.4	2.7
Special Warehousing and Storage (SIC 4226)											
Dollar volume											
1994	7.7	7.5	9.6	10.3	13.0	11.6	10.1	6.3	10.0	12.9	6.1
1993	8.6	8.3	10.2	10.3	8.6	4.3	10.7	5.1	10.6	14.0	8.6
Year-to-year ratio 1994/1993 ..	4.1	4.8	4.3	4.0	8.3	12.6	2.5	3.2	3.6	4.6	6.6

Note: Estimated coefficients of variation have not been computed for revised estimates prior to 1993 but approximate those previously published.

Appendix B. Explanatory Material

DEFINITION OF TERMS

Firm

A firm is a business entity consisting of one or more domestic establishments/locations under common ownership or control.

Operating Revenue

Billings for services rendered and any sales of merchandise during the survey year, even though payments may be received at a later date. Excludes income from interest, investments, gifts, loans, contributions or grants; the sale of securities, real estate, etc; sales taxes or other taxes collected from customers and remitted directly by the firm to a local, State, or Federal tax agency; revenue from the sale of merchandise and equipment from retail establishments; and revenue from a domestic parent organization, or from franchise locations owned by others and any franchise or license fees.

Motor carrier revenue. Billings for the transportation of freight by motor vehicles including the rental and leasing of vehicles with drivers.

Warehousing, storage, and handling revenue. Warehousing and storage revenue refers to billings for the storage of shipments in transit or permanent storage. Includes rental receipts from the operation of mini-warehouses and self-service storage facilities. Excludes revenue from subleasing of warehousing space to others. Warehouse handling revenue refers to amounts billed separately for labor, packing and crating, handling, loading and unloading, and other accessory services.

Other operating revenue

Trucking firms. Includes sales from the operation of lunchrooms and restaurants; revenue from parking and storage of vehicles; revenue from snowplow work; revenue from other carriers for the use of terminal facilities operated by the firm including amounts billed separately for repair services; revenue from the short-term rental or extended-term leasing (with or without maintenance) of trailers, trucks, and truck-tractors, without drivers; fair sales value of merchandise marketed under capital, finance or full-payout leases; revenue from commissions for providing

brokerage services, making payroll deductions, or collecting freight charges from other carriers. Excludes nonoperating revenue, such as income from investments, loans, the sale of securities, real estate, etc.

Warehousing firms. Includes revenue from compressing, bailing, etc., and the leasing of vehicles without drivers. Excludes the value of used equipment or vehicles sold, as well as revenue received from any equity or full-payout leasing arrangement (finance leasing); and nonoperating revenue, such as income from investments, loans, the sale of securities, real estate, etc.

Operating Expenses

Costs incurred during the survey year, even though payment may be made at a later date. Excludes interest on loans and sales taxes and other taxes collected from customers and paid directly to a taxing authority.

Annual payroll. All salaries, wages, commissions, bonuses, and allowances for vacation, holiday, and sick leave paid to employees during the survey year. For corporations, it includes amounts paid to officers and executives; for unincorporated businesses, it does not include payments to proprietors or partners. Annual payroll is reported before employee deductions for Social Security, withholding taxes, insurance, union dues, etc.

Employer contributions for employee benefit plans

Plans required under Federal and State legislation. The employer's cost for all legally required programs, such as Social Security, and Medicare (FICA), worker's compensation insurance, unemployment tax, State disability insurance programs, etc.

Other fringe benefit plans. The employer's cost for programs not required by law, such as pension plans, stock purchase plans, union-negotiated benefits, life insurance benefits, insurance premiums on hospital and medical plans, etc.

Purchased fuels. The cost of gasoline and other fuels (including all applicable Federal and State gasoline, diesel fuel and oil taxes) used for trucks and other motor vehicles. Warehousing firms include fuels consumed for heat, power, or generating electricity; trucking firms report these costs separately.

Purchased transportation (trucking firms only)

*Trucks, truck-tractors, trailers, and other motor vehicles rented or leased **with** drivers.* Payments made to other carriers for the rental of motor vehicles (trucks, truck-tractors, and trailers) with drivers for the exclusive use and control of the firm.

*Trucks, truck-tractors, trailers, and other motor vehicles rented or leased **without** drivers.* Payments made to other carriers for the rental of motor vehicles (trucks, truck-tractors, and trailers) without drivers for the exclusive use and control of the firm.

Transportation purchased from railroads, airlines, water, and other motor carriers. Payments made for individual shipments and part loads in the vehicles of other carriers when the hauling carrier retains control of the vehicle and driver; payments to railroads, water carriers, airlines, and others for the transportation of this firm's loaded or empty vehicles and containers; and payments for the delivery of small shipments by parcel post or messenger.

Lease and rental. Payments made to other companies for the rental and leasing of assets owned by them. Excludes payments to a parent company or organization or any of its subsidiaries, and installment payments for assets obtained through capital lease agreements.

Buildings, offices, and structures. Payments made to other companies for the rental or leasing of buildings, offices, and structures.

Machinery and equipment. Payments made to other companies for the rental and leasing of machinery and equipment. Warehousing firms include payments for the rental and leasing of motor vehicles. Trucking firms report these payments under purchased transportation.

Insurance. Trucking firms report these costs separately, while warehousing firms report a combined total.

Public liability and property damage insurance. The cost of commercial insurance to protect the company against liability for deaths or injuries of persons (excluding worker's compensation premiums) and damages to property of others resulting from the operation of owned and leased vehicles.

Insurance for loss of, or damage to, motor vehicles and their cargos. The cost of commercial insurance to protect the company against liability for claims resulting from loss, damage, or delay of property entrusted to it for transportation or storage; and losses from fire, theft, or collision damage to owned or leased vehicles.

Insurance for buildings, offices, structures, and machinery and equipment (other than trucks and other motor vehicles). The cost of commercial insurance to protect the company against loss or damage to buildings, structures, offices, machinery, and equipment (other than motor vehicles) caused by fire, flood, wind, boiler explosion, or any other cause.

Maintenance and repair. Excludes repair costs included as part of a lease or rental agreement, and improvements for which depreciation accounts are maintained.

Motor vehicle parts for self-repair (including tires and tubes) (trucking firms only). The amount paid for tires and tubes and parts used in repairs to company owned or leased vehicles by company employees.

Purchased repairs for trucks, truck-tractors, trailers, and other motor vehicles (trucking firms only). The amount paid to others for repair of company owned or leased vehicles, including parts and labor.

Purchased repairs for buildings, offices, and structures. The amount paid to others for repair of company owned or leased buildings, structures, and offices.

Purchased repairs for machinery and equipment. The amount paid to others for repair of company owned or leased machinery and equipment. Warehousing firms report repairs to motor vehicles here; trucking firms report these costs in the first two maintenance and repair costs above.

Depreciation. Depreciation charges on assets owned by the company. Includes depreciation on assets rented or leased to others by the company under an operating lease agreement. Also includes depreciation against assets owned by the company within leaseholds and assets obtained through capital lease agreements. Excludes depreciation by the company on intangible assets and assets leased to others under a capital lease agreement. These charges are not adjusted for the value of depreciable assets sold or traded for replacement purposes.

Motor vehicles (trucking firms only). Depreciation charges on trucks, truck-tractors, trailers, and other motor vehicles.

Buildings, offices, and structures. Depreciation charges on buildings, offices, and structures owned by the company (except machinery and equipment).

Machinery and equipment. Depreciation charges for machinery and equipment. Warehousing firms include depreciation of motor vehicles with other machinery and equipment. Trucking firms report motor vehicle charges separately.

Taxes and licenses. Includes payments for vehicle licensing and registration, tolls, and other vehicle use taxes. Also includes the cost of taxes, including real and personal property taxes (such as taxes on real estate, motor vehicles, machinery, equipment, and inventories). Excludes gasoline, diesel fuel, oil taxes and income, sales, payroll, excise taxes, and other taxes collected from customers and paid to local, State, or Federal government agencies.

Drug and alcohol testing and rehabilitation programs. The cost of testing employees for drugs and alcohol and employer-sponsored rehabilitation programs.

Other operating expenses. All other operating expenses not reported above, including booking commissions, landfill expenses, the cost of purchased utilities (including electricity, water, sewer, etc.), communication services, advertising, office supplies, losses by damage or theft not covered by insurance, bad debt losses, etc. Excludes interest on loans, as well as sales taxes and other taxes collected directly from customers and paid directly to a taxing authority.

Classification of Carrier (Trucking Firms Only)

Specialty freight. Carriers limited to transporting articles which, because of their size, shape, weight, or other inherent characteristics, require special equipment for loading, unloading, or transporting. These commodities include:

- Household goods
- Heavy machinery
- Refrigerated products
- Agricultural commodities
- Motor vehicles
- Building materials
- Dangerous or hazardous materials
- Forest products

General freight. Carriers capable of handling a wide variety of commodities including all or some of those listed above.

Classification of Distance Traveled (Trucking Firms Only)

Local trucking. Carriers primarily engaged in furnishing trucking or transfer services, with or without storage, within a city, town, or other local area including adjoining municipalities or suburban areas.

Long-distance trucking. Carriers primarily engaged in furnishing “over-the-road” trucking services either as a common carrier or under special or individual contract or agreement.

Classification of Shipment Size (Trucking Firms Only)

Less-than-truckload. Shipments with an actual weight of less than 10,000 pounds.

Truckload. Shipments with an actual weight of 10,000 pounds or more.

Classification of Commodities Handled (Trucking Firms Only)

Agricultural and food products. Includes live animals (cattle, horses, poultry, hogs, etc.), seafood, fresh farm products (grain, flowers, nursing stocks, raw milk, etc.), and processed food and tobacco products (canned goods, prepared meats, frozen foods, beverages, cigarettes, etc.).

Mining products, unrefined. Includes crude oil, coal and metal ores.

Building materials. Includes gravel, sand, concrete, flat glass, etc. Excludes cut lumber.

Forestry, wood, and paper products. Includes logs and forest products, lumber and fabricated wood products (except furniture), paper and paper products.

Chemicals and allied products (except petroleum). Includes chemicals and drugs (fertilizers, pesticides, cosmetics, paints, etc.), plastics, and rubber products.

Petroleum and petroleum products. Includes paving and roofing materials.

Metals and metal products. Includes primary metal products (pipes, ingots, billets, sheets, etc.), fabricated metal products, machinery, and transportation equipment, vehicles, and parts.

Household goods. Includes household and office furniture from homes, offices, etc.

Other manufactured products. Includes furniture and hardware (not involved in household moving), glass products, textiles and apparels (fibers, leather products, carpets, clothing, etc.), and miscellaneous manufactured products (photographic goods, watches, clocks, jewelry, toys, etc.).

Other. Includes scrap, garbage, trash, septic tank waste, industrial water, mixed cargo (including delivery of small packages), etc.

Classification of Shipments by Origin and Destination (Trucking Firms Only)

U.S. to U.S. Includes shipments that originated from and were destined to locations in the United States.

U.S. to Canada. Includes shipments that originated from the U.S. and were destined to locations in Canada.

Canada to U.S. Includes shipments that originated from Canada and were destined to locations in the U.S.

Other. Includes shipments that originated from and were destined to locations in each of the following country combinations: U.S. to Mexico, Canada to Canada, Canada to Mexico, Mexico to U.S., Mexico to Canada, and Mexico to Mexico.

SAMPLE DESIGN

The Motor Freight Transportation and Warehousing Survey is based on a probability sample, selected from employers contained on the Census Bureau's Standard Statistical Establishment List (SSEL). The SSEL includes all employer businesses that make Social Security payments for employees under the Federal Insurance Contribution Act (FICA). The sample is updated quarterly to account for new employer businesses (births) and employers which go out of business (deaths). The sample was originally drawn from establishments on the SSEL as of December 31, 1989. The SSEL consisted of two lists. One list was composed of all Employer Identification Numbers (EIN's) for businesses with reported payroll for at least one quarter of 1989. The EIN is the primary taxpayer identifier used by employer business firms. The second list consisted of all establishments of known multiestablishment companies as of December 31, 1989. These lists contained information on sales or receipts, payroll, employment, name and address, kind-of-business classification, etc.

Before the sampling frame was available, a study was made using files from the 1989 SSEL and 1987 Census of Transportation. This study determined the stratification of the sampling units based on payroll and kind of business, and the optimal allocation of the sample necessary to meet specified sampling variability objectives for revenue of different kind-of-business groups. The primary stratum boundary determined in the study was the certainty cutoff to be used for each kind of business. The cutoff was particularly important since it often determined the type of sampling unit.

The sampling units consist of both companies and EIN's. If a company had total revenue (estimated from payroll) above the corresponding cutoff for its major kind of business, or total revenue for any minor kind of business above the corresponding cutoff for the minor kind of business, the company was selected into the sample with certainty. The company, which might consist of many EIN's, was then the sampling unit; therefore, any new establishments that the company might acquire, even if under new or different EIN's, were in the sample with certainty. The EIN was the sampling unit for all single-establishment companies, whether or not selected with certainty. All multiestablishment companies not selected with certainty were treated on an EIN basis; that is, the EIN was the sampling unit.

To be eligible for the initial sampling, an EIN had to be active (i.e., had payroll in 1989 and was on the latest available Internal Revenue Service (IRS) active mailing list for FICA taxpayers). The EIN's were then stratified according to their major kind of business and their estimated revenue. Within each stratum, a simple random sample of EIN's was selected. The sampling rates for these strata varied between 1 in 3 and 1 in 481.

For all EIN "births" after the initial selection, a two-phase selection procedure is used. EIN births are all new EIN's recently assigned by the IRS and on the latest available IRS mailing list for FICA taxpayers. In the first phase, births are arranged by kind of business and size (expected employment or quarterly payroll). A relatively large sample is then drawn and canvassed in order to obtain a more reliable measure of size (revenue of two recent months) and to correct or obtain a more detailed kind-of-business code, if needed.

Using this more reliable information, the births selected in phase one are subjected to probability proportional-to-size sampling with overall probabilities equivalent to those used in drawing the initial sample from the 1989 SSEL. Because of the lag in identifying births and the time needed to accomplish the two-phase birth selection procedures, births are actually added to the sample on an average of 9 to 12 months after they begin operation. The birth selection procedure is carried out quarterly.

The EIN births that are selected in the quarterly birth selection procedure in early November of the annual survey year are included in the main mailing of the annual survey questionnaires early in the following year.

To account for all EIN births in the annual survey year, we mail EIN births selected in subsequent quarterly birth selection procedures in June and August to supplement the main survey mailing.

Selected EIN's that were reactivated in the quarterly processing, were not included in the main mailing and had payroll in the annual survey year are treated in a similar manner to the EIN births.

To be eligible for the sample canvass and tabulation, a business must meet both of the following requirements:

- a. It must be on the latest available IRS mailing list for FICA taxpayers from the previous quarter.
- b. It must have been selected from the SSEL or the file of employer births.

In the case of businesses that were selected into the sample with certainty, the first requirement is changed. These sampling units are not dropped from canvass and tabulation if they are no longer on the IRS mailing list.

Rather, these businesses are contacted, and if there are successor businesses, they are added to the survey.

ESTIMATION

Annual estimates of revenue, expenses and inventories from the Motor Freight Transportation and Warehousing-Survey are based upon the summation of weighted data reported by the sampling units in the survey. The assigned weights of the sampling units are the reciprocal of the probability of selection (or, equivalently, the inverse of the sampling rate).

Appendix C. Kind-of-Business Classifications

The motor freight transportation and warehousing industries included in the report are classified in accordance with the 1987 edition of the *Standard Industrial Classification Manual* issued by the Office of Management and Budget for purposes of providing a standard for the classification and presentation of data by all Federal agencies. Each establishment, firm, or organization is classified according to the major service (determined by the volume of revenue) it provides. Establishments, firms, and organizations owned and operated by Federal, State, or local governments are excluded. The following is a description of each kind-of-business classification presented in this report.

MOTOR FREIGHT TRANSPORTATION AND WAREHOUSING (SIC MAJOR GROUP 42)

Establishments furnishing local or long-distance trucking or transfer services, or those engaged in the storage of farm products, furniture and other household goods, or commercial goods of any nature. The operation of terminal facilities for handling freight, with or without maintenance facilities, is also included.

Local Trucking Without Storage (SIC 4212)

Establishments primarily engaged in furnishing trucking or transfer services without storage for freight generally weighing more than 100 pounds, in a single municipality, contiguous municipalities, or a municipality and its suburban areas.

Trucking, Except Local (SIC 4213)

Establishments primarily engaged in furnishing long-distance (over-the-road) trucking services or trucking services and storage services, including household goods either as common carriers or under special or individual contracts or agreements, for freight generally weighing more than 100 pounds.

Local Trucking With Storage (SIC 4214)

Establishments primarily engaged in furnishing both trucking and storage services, including household goods.

Courier Services, Except by Air (SIC 4215)

Establishments primarily engaged in the delivery of individually addressed letters, parcels, and packages (generally under 100 pounds), except by means of air transportation or by the United States Postal Service. Delivery is usually made by street or highway within a local area or between cities.

Farm Product Warehousing and Storage (SIC 4221)

Establishments primarily engaged in the warehousing and storage of farm products.

Refrigerated Warehousing and Storage (SIC 4222)

Establishments primarily engaged in the warehousing and storage of perishable goods under refrigeration. The establishments may also rent locker space for the storage of food products for individual households and provide incidental services for processing, preparing, or packaging such food for storage.

General Warehousing and Storage (SIC 4225)

Establishments primarily engaged in the warehousing and storage of a general line of goods. General merchandise is defined as material or goods of many varieties which are packaged or are readily handled and do not require refrigeration, controlled humidity, or other special facilities.

Special Warehousing and Storage, Not Elsewhere Classified (SIC 4226)

Establishments primarily engaged in the warehousing and storage of special products, not elsewhere classified, such as household goods, automobiles (dead storage only), furs (for the trade), textiles, whiskey, and goods at foreign trade zones.

Terminal and Joint Terminal Maintenance Facilities For Motor Freight Transportation (SIC 4231)

Establishments primarily engaged in the operation of terminal facilities used by highway-type property carrying vehicles. Also included are terminals which provide maintenance and service for motor vehicles.