

Impact of Size and Distance on Intercity Highway Share of Transportation of Industrial Products

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•NEW data from the 1963 Census of Transportation have contributed valuable information concerning an old problem: the distribution of traffic among modes of transport and the extent to which carrier shares are related to readily measurable factors. This paper is concerned primarily with the relationship between highway-carrier share and three basic traffic characteristics: commodity, size of shipment and distance.

The paper discusses the relationships between carrier share and commodity-size-distance factors in terms of the overall situation; it reviews the variations in the highway share associated with one factor at a time—with distance and then with size of shipment. Finally, the paper considers all three factors jointly, discussing variations in highway share for each selected commodity when weight is held constant and distance is allowed to vary.

The data were drawn from the 1963 Commodity Transportation Survey (one of the major projects of the 1963 Census of Transportation) which was based on a probability sample of about one million shipping papers selected from the traffic files of about 10,000 manufacturing establishments that represented essentially the industrial universe of the United States.

Table 1 indicates that highway carriers transported about 42 percent of the total intercity tonnage originating at manufacturing plants. The highway share was split between motor carriers and private trucks, 26 percent by motor carrier and 16 percent by private truck. The non-highway share amounted to about 58 percent of the total, with

TABLE 1
TOTAL TONS OF COMMODITIES ORIGINATED BY MANUFACTURERS,
BY MEANS OF TRANSPORT AND LENGTH OF HAUL

Length of Haul (straight-line mi)	Total Tons (millions)	Percent Distribution by Means of Transport ^a						
		Highway			Rail	Air	Water	Other
		Total	Motor Carrier	Private Truck				
Under 50	215	69.1	32.0	37.1	16.9	—	13.1	0.9
50 to 99	185	63.3	34.6	28.7	21.3	—	15.1	0.3
100 to 199	209	54.3	33.8	20.5	33.6	—	11.7	0.4
200 to 299	148	45.7	32.8	12.9	39.8	—	13.9	0.6
300 to 399	96	37.8	29.4	8.4	44.1	—	17.5	0.6
400 to 499	59	36.6	28.5	8.1	55.9	—	6.3	1.2
500 to 599	47	33.6	27.6	6.0	57.3	0.1	8.2	0.8
600 to 799	80	24.7	20.8	3.9	50.8	0.1	23.5	0.9
800 to 999	59	17.3	15.0	2.3	47.4	0.1	34.2	1.0
1000 to 1199	63	6.8	5.7	1.1	21.7	—	70.9	0.6
1200 to 1499	106	2.9	2.5	0.4	12.2	—	84.8	0.1
1500 to 1999	47	6.7	5.9	0.8	41.8	—	50.6	0.9
2000 or more	21	8.0	7.3	0.7	69.5	0.3	20.5	1.7
All distances	1,335	42.1	25.9	16.2	32.8	—	24.5	0.6

^aBased on a probability sample of about one million shipping papers drawn from the files of about 10,000 manufacturing establishments, 1963 Census of Transportation.

TABLE 2
TOTAL TONS OF COMMODITIES ORIGINATED BY MANUFACTURERS,
BY MEANS OF TRANSPORT AND SIZE OF SHIPMENT—1963

Size of Shipment (lb) ^a	Percent Distribution by Means of Transport						
	Highway			Rail	Air	Water	Other
	Total	Motor Carrier	Private Truck				
Under 50	42.1	25.5	16.6	2.0	2.8	0.1	53.0
50 to 99	82.5	57.6	24.9	2.6	1.8	0.1	13.0
100 to 199	89.6	65.5	24.1	3.2	1.1	0.1	6.0
200 to 499	92.8	68.6	24.2	3.0	0.5	0.1	3.6
500 to 999	94.1	69.1	25.0	2.5	0.3	0.2	2.9
1,000 to 1,999	94.3	68.9	25.4	2.6	0.3	0.3	2.5
2,000 to 2,999	90.3	64.6	25.7	6.9	0.1	0.4	2.3
3,000 to 4,999	89.9	64.2	25.7	8.3	0.1	0.5	1.2
5,000 to 9,999	92.8	54.1	38.7	4.9	0.1	0.4	1.8
10,000 to 19,999	88.1	43.8	44.3	10.5	—	0.5	0.9
20,000 to 29,999	81.6	53.0	28.6	17.4	—	0.5	0.5
30,000 to 39,999	84.2	56.2	28.0	14.5	—	0.8	0.5
40,000 to 49,999	78.2	57.5	20.7	20.0	—	1.6	0.2
50,000 to 59,999	53.8	35.0	18.8	44.8	—	1.2	0.2
60,000 to 69,999	13.0	8.9	4.1	84.1	—	2.5	0.4
70,000 to 79,999	10.3	7.7	2.6	88.3	—	1.1	0.3
80,000 to 89,999	8.9	6.6	2.3	90.1	—	0.9	0.1
90,000 and over	10.2	6.2	4.0	60.5	—	28.7	0.6

^aClassifications by size of shipment were based only on weights shown on bills of lading and sales invoices; other shipping source materials (such as tonnage reports) were also used for estimating total tonnage (Table 1) but excluded from tabulations involving shipment size; data derived from 1963 Census of Transportation.

rails accounting for about 33 percent, water for about 25 percent, and all others for less than 1 percent. For some purposes, a more useful overall comparison would be the distribution of total tonnage exclusive of water shipments, which are directly competitive with other modes of transport only between water served origin-destination cities or points. Water carriers also render a service that is substantially different in many other respects. On that basis, the highway share of the total tonnage is about 56 percent and non-highway (almost wholly railroad) is about 44 percent. The relative position of the highway share (excluding water) is probably the most useful average or norm for comparison with the selected commodity tables in this report, because water was not a significant mode of transport for any of these commodities.

As expected, the highway share of the total tonnage (all commodities by all transport combined) tended to be highest for short distances and to decline as distance increased. Although the generally inverse relationship indicated by Table 1 was anticipated, the level of the highway share of long-hauls was probably larger than expected, especially for private trucks.

With respect to size of shipment, three broad weight-bands are significant from the standpoint of highway transport, as indicated by Table 2. Shipments of less than 50 lb move principally by other means of transport—mostly express and parcel post—although the highway share is large, representing 42 percent of the total tonnage of shipments in this size class. The second weight-band starts at about 50 lb and goes up to around 50,000 lb. Highway carriers account for more than 80 percent of the tonnage in all but one of the weight-blocks within that broad range. The third weight-band is about 50,000 lb, in which the highway share drops sharply from 54 percent of shipments in the 50,000-59,999 block to 9 or 10 percent of tonnages in shipments over 80,000 lb.

On a commodity-by-commodity basis, the variations in highway shares are extreme. In the extensive list of commodities shown in the Census Commodity report (1), the highway share ranged from 99.6 percent for ice cream and frozen desserts (TCC 2024)¹ to about 3.1 percent of the tonnage for coke (TCC 33113).

¹TCC stands for the Transportation Commodity Classification issued by the Bureau of the Budget; it is identical to the Standard Transportation Commodity Classification (through the first five digits) issued by the railroads and motor carriers.

TABLE 3
HIGHWAY SHARE AND AVERAGE LENGTH OF HAUL OF SELECTED COMMODITIES
ORIGINATED BY MANUFACTURERS—1963

TCC Code	Commodity ^a	Highway Share (%)		Avg Length of Haul (straight-line mi)	
		Total Tons	Total Ton-Miles	By All Means of Transport	By Highway
228	Thread and yarn	95	85	364	325
307	Misc. plastics products	90	82	793	426
356	General industrial machinery and equipment	83	76	573	527
361	Electrical transmission and equipment	83	68	545	445
265	Containers, boxes and related products	83	64	208	159
349	Misc. fabricated metal products	78	68	388	341
322	Glass and glassware	78	65	268	222
208	Beverages and flavoring extracts	78	43	267	147
382	Measuring and controlling instruments	77	59	796	611
284	Soap, detergents, etc.	75	57	421	320
345	Bolts, screws, rivets, washers, etc.	71	57	338	275
335	Nonferrous metal basic shapes	70	45	535	347
343	Plumbing fixtures and heating apparatus	68	45	666	438
367	Electronic components or accessories	67	57	455	389
201	Meat and poultry (fresh or frozen)	67	51	475	361
233	Women's and infants' clothing	66	58	544	482
365	Radio and television receiving sets	66	48	701	516
339	Misc. primary metal products	58	48	292	243
301	Tires and inner tubes	57	44	567	438
282	Plastics materials and plasticizers	57	35	554	346
289	Misc. chemical products	50	32	397	256
331	Steel works and rolling mill products	41	24	294	175
354	Metal working machinery and equipment	40	47	289	345
363	Household appliances	36	22	699	437
262	Paper (exc. building paper)	35	22	497	309
204	Grain mill products	31	12	325	125

^aFor more complete description of commodities included in each of the TCC Codes, see Commodity Classification for Transportation Statistics issued by the Bureau of the Budget, or Standard Transportation Commodity Code issued by Association of American Railroads.

The highway share for the 26 selected commodities ranged from 95 percent for thread and yarn to 31 percent for grain mill products. The median highway share was about 67 percent. The choice of commodities in the list is a rough cross section of items throughout the entire range of highway participation, except for the extremes. The commodities are listed in order of magnitude of the highway share (Table 3).

The average length of haul by highway was shorter than by all means of transport combined for every commodity (except one), which accounts for the lower level of highway participation on a ton-mile rather than on a tonnage basis.

There seems to be little (if any) relationship between average length of haul and the highway share (Table 3). However, when the distance factor is measured in terms of mileage blocks (rather than a simple average distance), there is a highly significant relationship between highway participation and distance (Table 4). The highway share for each commodity is almost invariably largest for distances of less than 200 miles, and declines as the distance increases. The commodities toward the top of the table tend to remain at a high plateau for longer distances than those toward the bottom.

The corresponding two-dimensional view of commodity and size of shipment is given in Table 5, which indicates a high negative correlation between size of shipment and highway share. But unlike the findings concerning the impact of distance, there seems to be surprisingly little (if any) systematic variation among commodities within size groups. The highway shares for most of the commodities tended to remain high for shipments weighing less than 30,000 lb and in many cases for shipments up to 60,000 lb. The highway share was sharply lower, in most instances, for heavier shipments.

A substantially better view of the impact of size of shipment and distance can be obtained by considering the two factors jointly. Table 6 holds the size of shipment constant (i.e., under 1,000 lb), holds commodities constant (in effect) by listing each commodity on a separate line, and indicates the variation in highway share as distance increases. The median for the 26 commodities for shipments of less than 200 miles was

TABLE 4
HIGHWAY SHARE OF TONS OF SELECTED COMMODITIES ORIGINATED BY MANUFACTURERS,
BY MILEAGE BLOCK AND COMMODITY—1963

TCC Code	Commodity	Percent of Total Tons Originated				
		Under 200 Mi	200- 399 Mi	400- 599 Mi	600- 999 Mi	1,000 Mi and Over
228	Thread and yarn	99	99	87	96	42
307	Misc. plastic products	96	94	92	94	63
356	General industrial machinery and equipment	93	88	87	83	77
361	Electric transmission and equipment	97	86	88	80	67
265	Containers, boxes and related products	92	83	64	50	28
349	Misc. fabricated metal products	81	80	74	88	52
322	Glass and glassware	91	72	68	45	14
208	Beverages and flavoring extracts	89	69	44	18	15
382	Measuring and controlling instruments	81	92	79	80	39
284	Soap, detergents, etc.	90	76	63	56	45
345	Bolts, screws, rivets, washers, etc.	89	51	47	81	32
335	Nonferrous metal basic shapes	93	88	74	62	27
343	Plumbing fixtures and heating apparatus	93	94	67	69	21
367	Electronic components or accessories	65	91	67	55	39
201	Meat and poultry (fresh or frozen)	81	81	57	52	37
233	Women's and infants' clothing	76	62	72	64	57
365	Radio and television receiving sets	94	86	66	47	37
339	Misc. primary metal products	64	66	67	36	29
301	Tires and inner tubes	60	72	61	53	31
282	Plastics materials and plasticizers	83	73	59	37	19
289	Misc. chemical products	84	52	31	29	22
331	Steel works and rolling mill products	58	42	31	7	3
354	Metal working machinery and equipment	27	30	36	71	63
363	Household appliances	65	61	29	15	11
262	Paper (exc. building paper)	67	37	27	19	9
204	Grain mill products	58	12	7	6	14

TABLE 5
HIGHWAY SHARE OF TONS OF SELECTED COMMODITIES ORIGINATED BY MANUFACTURERS,
BY SIZE OF SHIPMENT AND COMMODITY—1963

TCC Code	Commodity	Percent of Total Tons Originated					
		Shipment Under 1000 Lb	Shipment 1000-9999 Lb	Shipment 10,000- 29,999 Lb	Shipment 30,000- 59,000 Lb	Shipment 60,000- 89,000 Lb	Shipment 90,000 Lb and Over
228	Thread and yarn	95	99	99	94	92	— ^a
307	Misc. plastics products	91	94	93	92	94	24
356	General industrial machinery and equipment	85	89	89	83	74	28
361	Electrical transmission and equipment	86	95	91	73	41	13
265	Containers, boxes and related products	92	98	87	57	57	46
349	Misc. fabricated metal products	90	95	81	85	19	— ^a
322	Glass and glassware	78	73	95	66	1	84
208	Beverages and flavoring extracts	99	96	94	91	4	11
382	Measuring and controlling instruments	76	80	96	8	— ^a	— ^a
284	Soap, detergents, etc.	93	96	90	70	37	83
345	Bolts, screws, rivets, washers, etc.	93	94	76	28	26	— ^a
335	Nonferrous metal basic shapes	94	96	93	75	35	25
343	Plumbing fixtures and heating apparatus	94	96	78	31	14	— ^a
367	Electronic components or accessories	76	92	66	28	— ^a	15
201	Meat and poultry (fresh or frozen)	99	92	77	58	1	13
233	Women's and infants' clothing	63	84	100	100	— ^a	— ^a
365	Radio and television receiving sets	75	80	51	42	— ^a	— ^a
339	Misc. primary metal products	94	98	98	88	37	2
301	Tires and inner tubes	97	98	79	26	19	— ^a
282	Plastics materials and plasticizers	91	95	96	81	15	15
289	Misc. chemical products	93	93	94	67	7	6
331	Steel works and rolling mill products	92	97	95	92	21	4
354	Metal working machinery and equipment	82	90	85	66	17	2
363	Household appliances	84	83	23	15	— ^a	— ^a
262	Paper (exc. building paper)	97	91	82	45	14	9
204	Grain mill products	100	98	92	38	1	1

^aEither no observations in sample or results for specific cell were too small.

TABLE 6
HIGHWAY SHARE OF SHIPMENTS OF LESS THAN 1,000 LB ORIGINATED BY
MANUFACTURERS, BY MILEAGE BLOCK AND SELECTED COMMODITIES—1963

TCC Code	Commodity	Percent of Total Tons Originated				
		Under 200 Mi ^a	200- 399 Mi ^a	400- 599 Mi ^a	600- 999 Mi ^a	1,000 Mi ^a and Over
228	Thread and yarn	98	99	97	96	66
307	Misc. plastics products	96	93	92	92	75
356	General industrial machinery and equipment	91	90	84	81	73
361	Electrical transmission and equipment	91	94	91	74	68
265	Containers, boxes and related products	98	96	92	80	63
349	Misc. fabricated metal products	92	95	93	87	79
322	Glass and glassware	97	88	68	71	54
208	Beverages and flavoring extracts	100	97	98	98	93
382	Measuring and controlling instruments	80	84	78	76	63
284	Soap, detergents, etc.	95	93	91	92	88
345	Bolts, screws, rivets, washers, etc.	96	95	88	86	86
335	Nonferrous metal basic shapes	97	94	94	90	77
343	Plumbing fixtures and heating apparatus	98	96	95	89	90
367	Electronic components or accessories	79	80	80	82	57
201	Meat and poultry (fresh or frozen)	100	100	94	82	64
233	Women's and infants' clothing	70	54	67	60	52
365	Radio and television receiving sets	94	82	80	67	57
339	Misc. primary metal products	96	96	94	88	85
301	Tires and inner tubes	96	97	99	98	92
282	Plastics materials and plasticizers	92	96	88	88	81
289	Misc. chemical products	97	94	92	90	68
331	Steel works and rolling mill products	94	95	90	87	78
354	Metal working machinery and equipment	85	85	78	82	77
363	Household appliances	94	94	88	78	58
262	Paper (exc. building paper)	99	96	96	92	84
204	Grain mill products	100	100	97	95	87
	Median	96	94	91	87	75

^aStraight-line.

96 percent and decreased gradually up to the 1,000 mile-block. However, despite the tendency to decline with distance, the highway share remained at high levels even for very long hauls.

Tables 6, 7, and 8, reviewed as a series, indicate that the impact of distance is more clearly felt on larger shipments. Table 6 is concerned with small shipments (under 1,000 lb), Table 7 deals with a shipment size-class loosely characterized as truck-load lots (i. e., 10,000 to 29,999 lb) and Table 8 with carload lots (i. e., 30,000 to 59,999 lb). The medians for the 10,000-29,999-lb shipments started at the same high level as for the smaller shipments (96 percent) but declined substantially faster with distance, reaching a low of 49 percent for hauls of more than 1,000 miles. The corresponding figures for 30,000 to 59,999-lb shipments started almost as high (92 percent) for short hauls, but declined much more rapidly as distances increased.

We have concentrated on changes in highway share that seem to be associated with size and distance. Next, the third variable, commodity, is examined to determine how the highway share varies from one commodity to another, when size and distance factors are held relatively constant. Each column in Tables 6, 7 and 8 indicates variations by commodity, when both size and distance are held within specified limits.

Much of that original ranking is indicated in Table 8, which suggests that the highway share for large shipments is dependent not only on size and distance, but that the commodity itself may be an important variable. However, since Table 8 was based solely on large shipments and these same shipments represented a substantial part of aggregates used to measure highway share of the total, a substantial part of this correspondence in ranking is attributable to mathematics and probably not significant with respect to differences in commodity.

A similar ranking of commodities also occurs among shipments in the 10,000 to 29,999-lb range (Table 7). In general, the commodities in which the highway share

TABLE 7
 HIGHWAY SHARE OF SHIPMENTS OF 10,000 TO 29,999 LB ORIGINATED BY
 MANUFACTURERS, BY MILEAGE BLOCK AND SELECTED COMMODITIES—1963

TCC Code	Commodity	Percent of Total Tons Originated				
		Under 200 Mi ^a	200- 399 Mi ^a	400- 599 Mi ^a	600- 999 Mi ^a	1,000 Mi ^a and Over
228	Thread and yarn	100	100	98	100	85
307	Misc. plastics products	96	92	90	97	80
356	General industrial machinery and equipment	87	93	95	91	68
361	Electrical transmission and equipment	100	97	79	86	82
265	Containers, boxes and related products	92	83	69	45	36
349	Misc. fabricated metal products	75	77	92	91	49
322	Glass and glassware	99	95	86	82	6
208	Beverages and flavoring extracts	99	92	94	72	47
382	Measuring and controlling instruments	100	100	100	78	95
284	Soap, detergents, etc.	98	80	89	83	64
345	Bolts, screws, rivets, washers, etc.	84	72	54	87	6
335	Nonferrous metal basic shapes	99	97	94	78	76
343	Plumbing fixtures and heating apparatus	89	98	67	68	35
367	Electronic components or accessories	65	100	72	28	27
201	Meat and poultry (fresh or frozen)	89	95	78	62	49
233	Women's and infants' clothing	100	—	—	—	—
365	Radio and television receiving sets	89	86	42	39	18
339	Misc. primary metal products	99	98	100	98	71
301	Tires and inner tubes	79	84	81	68	74
282	Plastics materials and plasticizers	96	99	96	97	79
289	Misc. chemical products	100	98	76	74	46
331	Steel works and rolling mill products	97	93	95	92	60
354	Metal working machinery and equipment	100	69	68	67	73
363	Household appliances	50	53	17	7	4
262	Paper (exc. building paper)	94	60	67	67	5
204	Grain mill products	97	69	43	50	23
	Median	96	93	86	78	49

^aStraight-line.

was high tended to remain in the upper brackets for each mileage block, and those which were low generally remained in the lower ranges. However, there seems to be little, if any, systematic variation among commodities when shipped in less than 1,000-lb lots (Table 6).

In brief, this set of tables suggests that size and distance factors account for most of the variability in highway share, with "commodity" becoming a significant third variable, especially for large shipments. Many irregularities in the progressions are indicated. Some may be significantly related to the commodity itself, such as measuring and controlling instruments (TCC 382) and plastics materials and plasticizers (TCC 282) which retained a substantially larger highway share than would be expected from either the share of total or based on size-distance considerations alone. However, most of the irregularities probably reflect sampling variability and other causes for erratic variations normally encountered in small samples.

In conclusion, here is one application of size-distance-commodity factors to the analysis of basic causes of differences in the interregional competitive shares of traffic among rails, motor carriers and private trucks (2). As shown by the Commodity Transportation Survey, highway carriers handled 78 percent of the total tonnage of plastics and plasticizers (TCC 282) shipped by manufacturing plants in New England, but only 26 percent of the total originated by plants in the West South Central states. These figures were based on shipments by rail, motor carrier, and private truck. Shipments by water and other means of transport were excluded, so that the analysis could be concentrated on the three major modes which were (at least potentially) competitive over the full spectrum of origin-destination pairs of points.

In reviewing those interregional differences, the question was raised as to whether they could be explained on the basis of normal size-distance-commodity factors, or if they reflected some significant regional differences from other causes. The percentage

TABLE 8
HIGHWAY SHARE OF SHIPMENTS OF 30,000 TO 59,999 LB ORIGINATED BY
MANUFACTURERS, BY MILEAGE BLOCK AND SELECTED COMMODITIES—1963

TCC Code	Commodity	Percent of Total Tons Originated				
		Under 200 Mi ^a	200- 399 Mi ^a	400- 599 Mi ^a	600- 999 Mi ^a	1,000 Mi ^a and Over
228	Thread and yarn	98	94	74	94	28
307	Misc. plastics products	94	97	96	97	52
356	General industrial machinery and equipment	99	30	60	82	89
361	Electrical transmission and equipment	100	49	93	73	59
265	Containers, boxes and related products	67	70	59	34	—
349	Misc. fabricated metal products	94	89	64	78	15
322	Glass and glassware	79	63	59	33	22
208	Beverages and flavoring extracts	99	87	76	57	31
382	Measuring and controlling instruments	—	100	—	—	1
284	Soap, detergents, etc.	86	81	58	42	23
345	Bolts, screws, rivets, washers, etc.	82	13	19	80	11
335	Nonferrous metal basic shapes	94	93	77	71	18
343	Plumbing fixtures and heating apparatus	85	82	33	36	4
367	Electronic components or accessories	37	—	39	17	14
201	Meat and poultry (fresh or frozen)	83	70	56	56	36
233	Women's and infants' clothing	100	—	—	—	—
365	Radio and television receiving sets	100	100	100	16	38
339	Misc. primary metal products	97	97	73	21	67
301	Tires and inner tubes	12	44	31	31	13
282	Plastics materials and plasticizers	94	92	87	62	36
289	Misc. chemical products	92	62	46	49	29
331	Steel works and rolling mill products	98	90	84	40	18
354	Metal working machinery and equipment	92	75	16	72	10
363	Household appliances	54	55	19	14	2
262	Paper (exc. building paper)	59	50	47	33	9
204	Grain mill products	58	20	13	19	39
	Median	92	75	59	42	22

^aStraight-line.

distribution by tonnage of plastics materials (TCC 282) by type of carrier, by size of shipment, and distance was computed from the Commodity Survey national summaries, in somewhat greater detail than is given in Tables 7, 8 and 9. Those "national normal" factors were then applied to each individual shipment record in the sample for this commodity to estimate the distribution of tonnage that would be expected if every shipment had moved according to the national normal pattern with no variations due to factors other than commodity-size-distance criteria. These anticipated distributions then were tabulated and compared with the actual distributions. Table 9 indicates that nearly all of the interregional variations found in the actual distributions could be attributed to size and distance factors.

These results indicate that long-term estimates of total highway intercity traffic are not merely a function of total output but that size-distance-commodity factors should be taken into consideration. For example, the results suggest that the volume of highway intercity traffic may increase or decrease substantially without a corresponding change in total output or demand for products. For example, a trend toward larger shipments (such as through extensive containerization and use of freight-forward services that are able to consolidate small shipments into large lots) should tend to shift traffic from the highways to rail. However, a trend toward small consignments (e.g., "hand-to-mouth buying" to minimize inventories) would be expected

TABLE 9
ACTUAL VS ANTICIPATED CARRIER SHARES OF
PLASTICS MATERIALS BY ORIGIN AREAS

Origin Area (census divisions)	Highway Share (%)		Rail Share (%)	
	Actual	Anticipated	Actual	Anticipated
New England	78	76	22	24
Middle Atlantic	75	74	25	26
East North Central	60	61	40	39
South Atlantic	74	76	26	24
East South Central	62	65	38	36
West South Central	26	31	74	69

to increase highway tonnage. Shorter hauls, such as caused by the migration of plants to locations nearer markets, would tend to increase the intercity highway tonnage, except for possible offsets to the extent that the plants' markets become local and are removed from the intercity segment.

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