

Motor Carrier Safety Services, Inc.  
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Gladstone, MO 64118



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July 16, 1996

QA-20591

FHWA-97-2299-12

U.S. DEPARTMENT OF TRANSPORTATION  
FEDERAL REGISTER DIV.  
ALL: 32

Comment on: FHWA Docket No. MC 96-18  
Federal Register/Vol. 61, No. 83/04-29-96

The proposal to amend the rules of practice for motor carrier safety concerning motor carrier safety rating procedures.

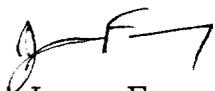
For the 33,153 motor carriers who were assigned a safety rating in 1993-1995 there was a direct correlation between the average Accident Frequency Ratio <AFR> (at fault DOT accidents per million miles) and the corresponding safety rating assigned.

	<u>Average AFR</u>
All Carriers	.483
Satisfactory Rating	.346
Conditional Rating	.585
Unsatisfactory Rating	.938

The attached study: Niche Market Analysis  
Predicting Risk for Catastrophic Loss (05/96)

demonstrated the value of DOT Safety Ratings for use in Truck Insurance Underwriting Tables.

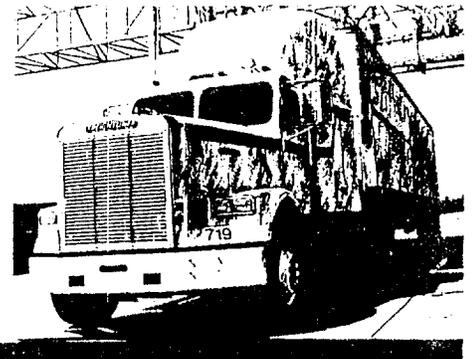
Sincerely,

  
James Feeney  
MCSSI

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*DOT Safety Ratings have been shown to be an effective rating indicator of risk for catastrophic loss in longhaul trucking.*

Currently, DOT Safety Ratings are based on six factors which are first rated individually and from which an overall rating of "Satisfactory" or, "Conditional" or, "Unsatisfactory" is assigned:

Factor 1	General	Parts 387 and 390
Factor 2	Driver	Parts 382, 383 and 391
Factor 3	Operational	Parts 392 and 395
Factor 4	Vehicle	Parts 393 and 396
Factor 5	Haz. Mat.	Parts 397 and 177
Factor 6	Accidents	Recordable Preventable Rate

*On April 29, 1996, DOT proposed in the Federal Register to do away with the Safety Rating process as we now know it.*

**In the interest of public safety, Motor Carrier Safety Services, Inc. proposes that the Safety Rating system should be expanded, modeled after California's at the state level, and not curtailed. California has five similar rating factors, also rated individually. But unlike DOT, the California Highway Patrol makes each factor's rating public record. The DOT system, soon to be abolished, provided only an overall rating derived from the six factors above; the individual ratings, per factor, were never public record.**

Be advised that trucking companies have mounted political pressure which appears will be successful and are clamoring for safety ratings to be solely performance based on a motor carrier's accident frequency ratio. Further, "Satisfactory" and "Conditional" ratings would be abolished. The "Niche Market Analysis" study clearly indicated the danger of liability risk rating, on an individual basis, on Accident Frequency Ratio alone.

*DOT has elicited a comment period open until July 29, 1996 on the matter of their intent to curtail safety ratings. Please review the attached excerpt from the Federal Register. "DOT attitude on safety slipping...now sliding towards relief for willingness to comply. Please respond or forever hold your peace.*

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# NICHE MARKET ANALYSIS

## PREDICTING RISK FOR CATASTROPHIC LOSS

### LONGHAUL TRUCK UNDERWRITING TABLES COMPARING ACCIDENT FREQUENCY RATIOS

Study performed: May 1996  
by: Jim Feeny  
on: 33,153 motor carriers

- Main Cargo vs Four Size Groups
- Main Cargo vs DOT Safety Ratings
- Main Cargo vs ICC & Private Carriers

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## MAIN CARGO

The purpose of this study was to ascertain the relationship of Niche Trucking Markets (differentiated by cargo classifications) to a group comparison for average Accident Frequency Ratio (AFR). Unless they were a specialized carrier, the DOT files generally list a motor carrier as hauling more than one cargo. For example, a Refrigerated Food hauler may also be listed as hauling General Freight and/or Building Materials. Motor Carrier Safety Services, Inc. developed a ***“pecking order” for Main Cargo*** derived from what I felt was the primary cargo classification for a particular trucking company. The DOT Table and my pecking order (priority from top to bottom) are outlined below:

DOT Cargo Table

A	General Freight
B	Household Goods
C	Metal; Sheets, Coils, Rolls
D	Motor Vehicles
E	Driveaway/Towaway
F	Logs, Poles, Beams, Lumber
G	Building Materials
H	Mobile Homes
I	Machinery, Large Objects
J	Fresh Produce
K	Liquids/Gases
L	Intermodal Containers
M	Passengers
N	Oilfield Equipment
O	Livestock
P	Grain, Feed, Hay
Q	Coal, Coke
R	Meat
S	Garbage, Refuse, Trash
T	U.S. Mail
U	Chemicals
V	Commodities Dry Bulk
W	Refrigerated Food
X	Beverages
Y	Paper Products
Z	Other

Pecking Order for one Main Cargo

W	Refrigerated Food
R	Meat
J	Fresh Produce
C	Metal; Sheets, Coils, Rolls
B	Household Goods
A	General Freight
D	Motor Vehicles
E	Driveaway/Towaway
F	Logs, Poles, Beams, Lumber
G	Building Materials
H	Mobil Homes
I	Machinery, Large Objects
K	Liquids/Gases
L	Intermodal Containers
M	Passengers
N	Oilfield Equipment
O	Livestock
P	Grain, Feed, Hay
Q	Coal, Coke
S	Garbage, Refuse, Trash
T	U.S. Mail
U	Chemicals
V	Commodities Dry Bulk
X	Beverages
Y	Paper Products
Z	Other

## DATA

used for this study included **33,153 Motor Carriers** audited (Compliance Review) by DOT from 1993-1995 and assigned a Safety Rating: **Satisfactory; or Conditional; or Unsatisfactory**. DOT usually incorporated state Form B or IRP reporting for the mileage statistics.

## ACCIDENTS

used in this study were from Police Reports, for one year, as indicated from the DOT Safetynet database (49 states contribute to this via the Motor Carrier Safety Assistance Program). All accidents for this study were DOT Reportable -- **serious by definition with acute potential for catastrophic loss** -- they all met the following minimum criteria:

- 1) **Fatality**, or;
- 2) **Bodily Injury** with immediate medical treatment away from the scene, or;
- 3) **A Disabled Vehicle** involving a tow.

## TABLE I

(GROUP A-D AVERAGE ACCIDENT FREQUENCY RATIO)

Group A: under one million annual miles

Group B: one million or more; but less than 5 million annual miles

Group C: 5 million or more but less than 20 million annual miles

Group D: 20 million or more annual miles

Essentially, Table I is the summary of Tables III-VI for average frequency ratios (AFR) (expressed in accidents per million miles) for each specific cargo and size group.

The data demonstrated up to a **five-fold variance in propensity for serious accidents based on a specific Main Cargo category**.

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## TABLE II

(MAIN CARGO VS SAFETY RATING AS A PREDICTOR OF HIGHER/LOWER ACCIDENT FREQUENCY RATIO)

This table *compares each motor carrier individually* to the overall average Accident Frequency Ratio for each Main Cargo.

A quick glance at this table might prejudice opinion that "Conditional" or "Unsatisfactory" safety ratings are only reliable for 13% of the motor carriers in predicting a higher than average AFR as a contrast to "Satisfactory" which was 92% accurate for predicting a lower than average AFR. Reality: the table demonstrates *the inherent danger of underwriting based on individual loss runs* for any but the largest of trucking fleets.

A stereotypical example for a high-risk could be a dangerous motor carrier who travels 100,000 miles a year with an expected accident frequency ratio of 1.000 accidents per million miles. This trucking company would actually have a DOT reportable accident occurrence once every ten years--so much for rating on three years of loss runs.

To further demonstrate the fallacy of catastrophic rating from individual loss runs the overall numbers from this study are startling: 33,153 motor carriers were analyzed of which 28,700 traveled less than one million annual miles (Table III--Group A)

- 1) **26,871 or 94%** of the 28,700 motor carriers in Group A had *no accidents* and hence an AFR of 0.000
- 2) **10,431 or 92%** of the 11,400 Group A carriers who were *rated "Conditional" or "Unsatisfactory"* also had *no accidents*

Reality: A poor risk may have the potential for a catastrophic loss only once every five or ten years. Obviously, the odds were very low that a poor risk would also just happen to have had a loss during the same year as their DOT audit.

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## TABLE III-VI

(MAIN CARGO VS: ICC & PRIVATE; AND SAFETY RATINGS AS A PREDICTOR FOR HIGHER/LOWER AFR)

*These tables compare motor carriers on a group basis for all trucking companies matching specific criteria vs a Main Cargo accident frequency ratio (AFR) average.*

*Tables III-VI clearly demonstrate that group comparison of: Main Cargo, Size, Safety Ratings and ICC vs Private carriers provide useful tools for predicting catastrophic loss*

## SUMMARY & CONCLUSION

Main Cargo classifications demonstrate up to a five-fold variance for accident frequency ratios and present a valuable tool for niche market risk rating.

Larger carriers are generally safer than small carriers and Private carriers are generally safer than ICC carriers.

Underwriting for small fleets, based on individual loss runs, does not reflect an accurate calculation of the risk.

DOT Safety Ratings when coupled with group comparison analysis (the "Law of Large Numbers") provide a valuable underwriting tool for predicting catastrophic loss.

Accident frequency ratios and DOT Safety Ratings provide viable predictive rating tables for a group comparison but not on an individual basis for small fleets.

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TABLE I

SIDE BY SIDE COMPARISON OF ALL GROUPS (A-D; ANNUAL MILEAGE UNDER 1 MILLION TO OVER 20 MILLION)

AVERAGE AFR: ACCIDENT FREQUENCY RATIO (PREVENTABLE DOT ACCIDENTS PER MILLION MILES)

DOT ACCIDENT 1.FATAL, OR 2.INJURY AT SCENE, OR 3.DISABLED VEHICLE	GROUP A-D		GROUP A		GROUP B		GROUP C		GROUP D	
	ALL		<1 MILLION		1-5 MILLION		5-20 MILL		>20 MILLION	
	COUNT	AFR	COUNT	AFR	COUNT	AFR	COUNT	AFR	COUNT	AFR
A GENERAL FREIGHT	3628	.548	2313	.612	856	.442	327	.438	132	.382
B HOUSEHOLD GOODS	585	.794	514	.837	47	.461	15	.567	9	.478
C METAL:SHEETS,COILS,ROLLS	1613	.457	1176	.447	299	.478	102	.512	36	.482
D MOTOR VEHICLES	1347	.495	1298	.499	37	.396	10	.338	2	.615
E DRIVEAWAY/TOWAWAY	289	.675	273	.679	11	.689	5	.427	0	-
F LOGS,POLES,BEAMS,LUMBER	1886	.621	1790	.622	82	.651	12	.414	2	.216
G BUILDING MATERIALS	1576	.582	1469	.586	89	.538	14	.441	4	.495
H MOBILE HOMES	216	.935	205	.962	9	.405	1	.184	1	.889
I MACHINERY,LARGE OBJECTS	1993	.558	1931	.566	53	.292	6	.499	3	.227
J FRESH PRODUCE	1335	.554	1057	.585	209	.453	58	.366	11	.461
K LIQUIDS/GASES	1280	.482	1059	.493	156	.458	46	.364	19	.356
L INTERMODAL CONTAINERS	78	1.067	55	.968	17	1.504	6	.740	0	-
M PASSENGERS	1097	.408	958	.422	122	.302	15	.375	2	.303
N OILFIELD EQUIPMENT	157	.286	147	.296	10	.133	0	-	0	-
O LIVESTOCK	1023	.324	985	.313	36	.598	2	1.015	0	-
P GRAIN,FEED,HAY	1824	.422	1765	.421	54	.447	5	.581	0	-
Q COAL,COKE	111	.821	89	.868	19	.640	3	.562	0	-
R MEAT	149	.405	126	.388	16	.542	4	.503	3	.254
S GARBAGE,REFUSE,TRASH	220	1.069	179	1.128	35	.856	4	.682	2	.294
T US MAIL	1479	.203	1430	.203	37	.200	10	.233	2	.164
U CHEMICALS	400	.590	361	.608	28	.421	7	.427	4	.418
V COMMODITIES DRY BULK	380	.799	321	.882	47	.326	9	.473	3	.301
W REFRIGERATED FOOD	2225	.479	1366	.511	573	.435	223	.423	63	.375
X BEVERAGES	159	.356	137	.320	18	.628	4	.366	0	-
Y PAPER PRODUCTS	428	.288	376	.268	39	.470	11	.344	2	.248
Z OTHER	7675	.396	7320	.393	288	.462	57	.392	10	.393
TOTALS:	33153		28700		3187		956		310	

DATA: CARRIERS WHO WERE AUDITED BY DOT FROM 1993-1995(COMPLIANCE REVIEW)

PREVENTABILITY WAS DETERMINED BY DOT FROM SCRUTINIZING INDIVIDUAL POLICE REPORTS

GROUP A:  
UNDER 1 MILLION MILES

GROUP B:  
EQUAL/GREATER 1 MILLION  
LESS THAN 5 MILLION MILES

GROUP C:  
EQUAL/GREATER 5 MILLION  
LESS THAN 20 MILLION MILES

GROUP D:  
EQUAL/GREATER 20 MILLION  
ANNUAL MILES

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TABLE II

ACCURACY (PERCENT CORRECT) OF USING INDIVIDUAL DOT SAFETY RATINGS TO PREDICT A LOWER THAN AVERAGE "AFR" FOR "SATISFACTORY" AND A HIGHER THAN AVERAGE "AFR" FOR "CONDITIONAL" OR "UNSATISFACTORY"

AVERAGE AFR: ACCIDENT FREQUENCY RATIO (PREVENTABLE DOT ACCIDENTS PER MILLION MILES)

DOT ACCIDENT  
1. FATAL, OR  
2. INJURY AT SCENE, OR  
3. DISABLED VEHICLE

DATA: CARRIERS WHO WERE  
AUDITED BY DOT FROM  
1993-1995 (COMPLIANCE  
REVIEW)

PREVENTABILITY WAS  
DETERMINED BY DOT  
FROM SCRUTINIZING  
INDIVIDUAL POLICE  
REPORTS

DOT ACCIDENT	ALL AVG AFR	SATISFACTORY			CONDITIONAL			UNSATISFACTORY		
		ALL	BELOW	%	ALL	ABOVE	%	ALL	ABOVE	%
		COUNT	AFR		COUNT	AFR		COUNT	AFR	
A GENERAL FREIGHT	.548	2392	2017	84%	949	246	26%	287	101	35%
B HOUSEHOLD GOODS	.794	316	301	95%	180	28	16%	89	10	11%
C METAL: SHEETS, COILS, ROLLS	.457	950	804	85%	502	118	24%	161	43	27%
D MOTOR VEHICLES	.495	618	595	96%	407	33	8%	322	17	5%
E DRIVEAWAY/TOWAWAY	.675	165	159	96%	71	8	11%	53	2	4%
F LOGS, POLES, BEAMS, LUMBER	.621	1022	947	93%	549	52	9%	315	42	13%
G BUILDING MATERIALS	.582	932	862	92%	413	47	11%	231	19	8%
H MOBILE HOMES	.935	119	110	92%	52	4	8%	45	5	11%
I MACHINERY, LARGE OBJECTS	.558	1059	1012	96%	595	38	6%	339	22	6%
J FRESH PRODUCE	.554	774	711	92%	405	78	19%	156	33	21%
K LIQUIDS/GASES	.482	948	831	88%	294	61	21%	38	15	39%
L INTERMODAL CONTAINERS	1.067	42	39	93%	28	9	32%	8	3	38%
M PASSENGERS	.408	861	804	93%	215	31	14%	21	7	33%
N OILFIELD EQUIPMENT	.286	103	96	93%	41	3	7%	13	2	15%
O LIVESTOCK	.324	546	510	93%	314	24	8%	163	18	11%
P GRAIN, FEED, HAY	.422	1066	1021	96%	521	32	6%	237	18	8%
Q COAL, COKE	.821	64	55	86%	32	6	19%	15	4	27%
R MEAT	.405	95	88	93%	33	6	18%	21	7	33%
S GARBAGE, REFUSE, TRASH	1.069	119	111	93%	63	13	21%	38	8	21%
T US MAIL	.203	1317	1268	96%	109	0	0%	53	2	4%
U CHEMICALS	.590	301	276	92%	91	8	9%	8	0	0%
V COMMODITIES DRY BULK	.799	253	231	91%	85	10	12%	42	11	36%
W REFRIGERATED FOOD	.479	1358	1141	84%	658	172	26%	209	74	35%
X BEVERAGES	.356	101	92	91%	42	9	21%	16	2	12%
Y PAPER PRODUCTS	.288	286	262	92%	101	15	15%	41	6	15%
Z OTHER	.396	4364	4131	95%	2225	144	6%	1086	64	6%
TOTALS:		20171	18474	92%	8975	1195	13%	4007	535	13%

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TABLE III

GROUP A (ANNUAL MILEAGE UNDER 1 MILLION)

AVERAGE AFR: ACCIDENT FREQUENCY RATIO (PREVENTABLE DOT ACCIDENTS PER MILLION MILES)

DOT ACCIDENT  
1.FATAL, OR  
2.INJURY AT SCENE, OR  
3.DISABLED VEHICLE

DATA: CARRIERS WHO WERE  
AUDITED BY DOT FROM  
1993-1995 (COMPLIANCE  
REVIEW)

PREVENTABILITY WAS  
DETERMINED BY DOT  
FROM SCRUTINIZING  
INDIVIDUAL POLICE  
REPORTS

	ALL		ICC		PRIVATE		DOT SAFETY RATINGS					
	COUNT	AFR	COUNT	AFR	COUNT	AFR	SATISFACTRY		CONDITIONAL		UNSATISFACT	
							COUNT	AFR	COUNT	AFR	COUNT	AFR
A GENERAL FREIGHT	2313	.612	1822	.670	491	.396	1509	.434	588	.787	216	1.378
B HOUSEHOLD GOODS	514	.837	249	.954	265	.727	269	.357	159	1.686	86	.767
C METAL:SHEETS,COILS,ROLLS	1176	.447	510	.538	666	.377	695	.300	351	.390	130	1.382
D MOTOR VEHICLES	1298	.499	340	.701	958	.427	590	.346	388	.605	320	.652
E DRIVEAWAY/TOWAWAY	273	.679	84	1.227	189	.435	154	.153	68	1.644	51	.980
F LOGS,POLES,BEAMS,LUMBER	1790	.622	326	.613	1464	.624	961	.480	523	.621	306	1.066
G BUILDING MATERIALS	1469	.586	204	.794	1265	.553	862	.542	383	.431	224	1.023
H MOBILE HOMES	205	.962	79	2.058	126	.275	114	.940	48	1.086	43	.881
I MACHINERY,LARGE OBJECTS	1931	.566	193	.753	1738	.546	1023	.325	574	.700	334	1.076
J FRESH PRODUCE	1057	.585	556	.486	501	.695	627	.325	312	.880	118	1.187
K LIQUIDS/GASES	1059	.493	242	.628	817	.453	785	.408	244	.688	30	1.140
L INTERMODAL CONTAINERS	55	.968	40	1.010	15	.855	31	.629	17	.337	7	3.998
M PASSENGERS	958	.422	863	.400	95	.617	745	.316	192	.412	21	4.253
N OILFIELD EQUIPMENT	147	.296	15	.637	132	.257	94	.224	40	.269	13	.898
O LIVESTOCK	985	.313	109	.417	876	.300	531	.258	299	.280	155	.567
P GRAIN,FEED,HAY	1765	.421	338	.391	1427	.428	1037	.336	497	.420	231	.803
Q COAL,COKE	89	.868	50	.493	39	1.350	51	.458	24	.786	14	2.504
R MEAT	126	.388	39	.568	87	.308	83	.094	26	.148	17	2.195
S GARBAGE,REFUSE,TRASH	179	1.128	21	.478	158	1.214	92	.356	53	2.106	34	1.691
T US MAIL	1430	.203	47	.316	1383	.199	1271	.211	106	.169	53	.073
U CHEMICALS	361	.608	38	.189	323	.657	267	.627	87	.597	7	.000
V COMMODITIES DRY BULK	321	.882	116	.511	205	1.092	206	.561	75	.641	40	2.984
W REFRIGERATED FOOD	1366	.511	786	.444	580	.602	858	.308	379	.790	129	1.045
X BEVERAGES	137	.320	33	.683	104	.205	88	.062	34	.933	15	.444
Y PAPER PRODUCTS	376	.268	90	.268	286	.267	252	.084	85	.803	39	.290
Z OTHER	7320	.393	677	.593	6643	.373	4105	.306	2145	.405	1070	.704
TOTALS:	28700		7867		20833		17300		7697		3703	

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TABLE IV

GROUP B (ANNUAL MILEAGE EQUAL/OVER 1 MILLION AND LESS THAN 5 MILLION)

AVERAGE AFR: ACCIDENT FREQUENCY RATIO (PREVENTABLE DOT ACCIDENTS PER MILLION MILES)

DOT ACCIDENT  
1. FATAL, OR  
2. INJURY AT SCENE, OR  
3. DISABLED VEHICLE

DATA: CARRIERS WHO WERE  
AUDITED BY DOT FROM  
1993-1995 (COMPLIANCE  
REVIEW)

PREVENTABILITY WAS  
DETERMINED BY DOT  
FROM SCRUTINIZING  
INDIVIDUAL POLICE  
REPORTS

	ALL		ICC		PRIVATE		DOT SAFETY RATINGS					
	COUNT	AFR	COUNT	AFR	COUNT	AFR	SATISFACTORY		CONDITIONAL		UNSATISFACT	
							COUNT	AFR	COUNT	AFR	COUNT	AFR
A GENERAL FREIGHT	856	.442	818	.445	38	.372	528	.324	264	.548	64	.977
B HOUSEHOLD GOODS	47	.461	44	.471	3	.321	28	.456	17	.525	2	.000
C METAL: SHEETS, COILS, ROLLS	299	.478	280	.494	19	.242	169	.358	109	.618	21	.712
D MOTOR VEHICLES	37	.396	28	.354	9	.525	19	.292	16	.447	2	.980
E DRIVEAWAY/TOWAWAY	11	.689	8	.620	3	.872	6	.314	3	1.291	2	.909
F LOGS, POLES, BEAMS, LUMBER	82	.651	40	.582	42	.716	49	.429	24	.862	9	1.293
G BUILDING MATERIALS	89	.538	49	.525	40	.554	55	.389	27	.665	7	1.222
H MOBILE HOMES	9	.405	9	.405	0	-	5	.343	3	.295	1	1.042
I MACHINERY, LARGE OBJECTS	53	.292	25	.233	28	.344	31	.209	17	.376	5	.516
J FRESH PRODUCE	209	.453	194	.433	15	.715	103	.328	75	.515	31	.720
K LIQUIDS/GASES	156	.458	97	.381	59	.585	106	.350	43	.606	7	1.178
L INTERMODAL CONTAINERS	17	1.504	17	1.504	0	-	7	.406	9	2.470	1	.500
M PASSENGERS	122	.302	116	.311	6	.135	102	.195	20	.850	0	-
N OILFIELD EQUIPMENT	10	.133	5	.178	5	.087	9	.147	1	.000	0	-
O LIVESTOCK	36	.598	18	.634	10	.562	14	.431	14	.482	8	1.094
P GRAIN, FEED, HAY	54	.447	39	.437	15	.474	27	.293	21	.501	6	.951
Q COAL, COKE	19	.640	18	.656	1	.364	11	.430	7	.940	1	.853
R MEAT	16	.542	14	.571	2	.334	7	.337	5	.301	4	1.200
S GARBAGE, REFUSE, TRASH	35	.856	6	.479	29	.934	22	.492	9	1.060	4	2.394
T US MAIL	37	.200	12	.250	25	.176	35	.194	2	.298	0	-
U CHEMICALS	28	.421	9	.638	19	.310	25	.342	3	1.078	0	-
V COMMODITIES DRY BULK	47	.326	42	.355	5	.082	35	.290	10	.349	2	.839
W REFRIGERATED FOOD	573	.435	508	.436	65	.428	315	.317	195	.488	63	.863
X BEVERAGES	18	.628	9	.741	9	.514	11	.702	7	.511	0	-
Y PAPER PRODUCTS	39	.470	29	.419	10	.617	28	.414	9	.543	2	.930
Z OTHER	288	.462	139	.509	149	.417	203	.314	69	.810	16	.828
TOTALS:	3187		2573		614		1950		979		258	

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TABLE V

## GROUP C (ANNUAL MILEAGE EQUAL/OVER 5 MILLION AND LESS THAN 20 MILLION)

AVERAGE AFR:ACCIDENT FREQUENCY RATIO (PREVENTABLE DOT ACCIDENTS PER MILLION MILES)

DOT ACCIDENT 1.FATAL, OR 2.INJURY AT SCENE, OR 3.DISABLED VEHICLE	ALL		ICC		PRIVATE		DOT SAFETY RATINGS					
	COUNT	AFR	COUNT	AFR	COUNT	AFR	SATISFACTORY		CONDITIONAL		UNSATISFACT	
							COUNT	AFR	COUNT	AFR	COUNT	AFR
A GENERAL FREIGHT	327	.438	321	.441	6	.286	242	.385	80	.576	5	.814
B HOUSEHOLD GOODS	15	.567	15	.567	0	-	12	.508	2	.681	1	1.047
C METAL:SHEETS,COILS,ROLLS	102	.512	98	.520	4	.321	61	.438	33	.627	8	.606
D MOTOR VEHICLES	10	.338	8	.423	2	.000	8	.275	2	.591	0	-
E DRIVEAWAY/TOWAWAY	5	.427	5	.427	0	-	5	.427	0	-	0	-
F LOGS,POLES,BEAMS,LUMBER	12	.414	10	.485	2	.063	10	.373	2	.620	0	-
G BUILDING MATERIALS	14	.441	10	.483	4	.337	11	.366	3	.717	0	-
H MOBILE HOMES	1	.184	0	-	1	.184	0	-	1	.184	0	-
I MACHINERY,LARGE OBJECTS	6	.499	3	.163	3	.835	2	.560	4	.469	0	-
J FRESH PRODUCE	58	.366	57	.365	1	.393	37	.221	15	.597	6	.680
K LIQUIDS/GASES	46	.364	37	.383	9	.286	39	.317	6	.651	1	.458
L INTERMODAL CONTAINERS	6	.740	6	.740	0	-	4	.692	2	.837	0	-
M PASSENGERS	15	.375	14	.390	1	.169	12	.313	3	.623	0	-
N OILFIELD EQUIPMENT	0	-	0	-	0	-	0	-	0	-	0	-
O LIVESTOCK	2	1.015	1	.394	1	1.636	1	.394	1	1.636	0	-
P GRAIN,FEED,HAY	5	.581	3	.194	2	1.162	2	.225	3	.819	0	-
Q COAL,COKE	3	.562	3	.562	0	-	2	.750	1	.187	0	-
R MEAT	4	.503	4	.503	0	-	2	.521	2	.485	0	-
S GARBAGE,REFUSE,TRASH	4	.682	0	-	4	.682	4	.682	0	-	0	-
T US MAIL	10	.233	5	.336	5	.130	9	.243	1	.145	0	-
U CHEMICALS	7	.427	3	.397	4	.449	7	.427	0	-	0	-
V COMMODITIES DRY BULK	9	.473	9	.473	0	-	9	.473	0	-	0	-
W REFRIGERATED FOOD	223	.423	200	.416	23	.488	135	.387	74	.438	14	.698
X BEVERAGES	4	.366	1	.261	3	.401	2	.214	1	.000	1	1.036
Y PAPER PRODUCTS	11	.344	8	.391	3	.218	6	.261	5	.444	0	-
Z OTHER	57	.392	32	.399	25	.383	48	.329	9	.729	0	-
TOTALS:	956		853		103		670		250		36	

DATA: CARRIERS WHO WERE  
AUDITED BY DOT FROM  
1993-1995(COMPLIANCE  
REVIEW)

PREVENTABILITY WAS  
DETERMINED BY DOT  
FROM SCRUTINIZING  
INDIVIDUAL POLICE  
REPORTS

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TABLE VI

GROUP D (ANNUAL MILEAGE EQUAL/OVER 20 MILLION)

AVERAGE AFR: ACCIDENT FREQUENCY RATIO (PREVENTABLE DOT ACCIDENTS PER MILLION MILES)

DOT ACCIDENT  
1.FATAL, OR  
2.INJURY AT SCENE, OR  
3.DISABLED VEHICLE

DATA: CARRIERS WHO WERE  
AUDITED BY DOT FROM  
1993-1995 (COMPLIANCE  
REVIEW)

PREVENTABILITY WAS  
DETERMINED BY DOT  
FROM SCRUTINIZING  
INDIVIDUAL POLICE  
REPORTS

	ALL		ICC		PRIVATE		DOT SAFETY RATINGS					
	COUNT	AFR	COUNT	AFR	COUNT	AFR	SATISFACTORY		CONDITIONAL		UNSATISFACT	
							COUNT	AFR	COUNT	AFR	COUNT	AFR
A GENERAL FREIGHT	132	.382	128	.384	4	.319	113	.368	17	.445	2	.656
B HOUSEHOLD GOODS	9	.478	8	.484	1	.428	7	.457	2	.553	0	-
C METAL: SHEETS, COILS, ROLLS	36	.482	35	.481	1	.500	25	.423	9	.570	2	.818
D MOTOR VEHICLES	2	.615	2	.615	0	-	1	.978	1	.253	0	-
E DRIVEAWAY/TOWAWAY	0	-	0	-	0	-	0	-	0	-	0	-
F LOGS, POLES, BEAMS, LUMBER	2	.216	0	-	2	.216	2	.216	0	-	0	-
G BUILDING MATERIALS	4	.495	3	.525	1	.404	4	.495	0	-	0	-
H MOBILE HOMES	1	.889	1	.889	0	-	0	-	0	-	1	.889
I MACHINERY, LARGE OBJECTS	3	.227	2	.274	1	.133	3	.227	0	-	0	-
J FRESH PRODUCE	11	.461	11	.461	0	-	7	.417	3	.515	1	.605
K LIQUIDS/GASES	19	.356	13	.333	6	.406	18	.366	1	.180	0	-
L INTERMODAL CONTAINERS	0	-	0	-	0	-	0	-	0	-	0	-
M PASSENGERS	2	.303	2	.303	0	-	2	.303	0	-	0	-
N OILFIELD EQUIPMENT	0	-	0	-	0	-	0	-	0	-	0	-
O LIVESTOCK	0	-	0	-	0	-	0	-	0	-	0	-
P GRAIN, FEED, HAY	0	-	0	-	0	-	0	-	0	-	0	-
Q COAL, COKE	0	-	0	-	0	-	0	-	0	-	0	-
R MEAT	3	.254	3	.254	0	-	3	.254	0	-	0	-
S GARBAGE, REFUSE, TRASH	2	.294	1	.587	1	.000	1	.000	1	.587	0	-
T US MAIL	2	.164	1	.027	1	.300	2	.164	0	-	0	-
U CHEMICALS	4	.418	2	.681	2	.155	2	.075	1	1.211	1	.310
V COMMODITIES DRY BULK	3	.301	3	.301	0	-	3	.301	0	-	0	-
W REFRIGERATED FOOD	63	.375	56	.372	7	.400	50	.345	10	.442	3	.650
X BEVERAGES	0	-	0	-	0	-	0	-	0	-	0	-
Y PAPER PRODUCTS	2	.248	1	.416	1	.080	0	-	2	.248	0	-
Z OTHER	10	.393	6	.427	4	.168	8	.363	2	.162	0	-
TOTALS:	310		278		32		251		49		10	

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