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ABSTRACT

The General Accounting Office examined the types of training available for tractor-trailer drivers, focusing on the Federal Highway Administration's (FHWA's) efforts to establish minimum federal standards for training tractor-trailer drivers, the driver training curriculum offered by various private and public schools, and the trucking industry's efforts to improve the quality of driver training. Currently, there are no federal or state requirements that tractor-trailer drivers receive formal training as a condition for licensing and no minimum federal standards governing any training that may be provided, despite the fact that driver error continues to be cited as the major cause of truck accidents. FHWA did not develop proposed minimum standards for training programs until 1984 and a model curriculum for training tractor-trailer drivers until 1985. Since 1984, three governmental organizations have recommended that FHWA complete its proposed minimum training standards, but it currently has no plans to do so. The review of tractor trailer driver training programs offered by 24 private training schools and 12 public education institutions showed a wide variance in the course curricula, hours of training, and costs. The number of training hours ranged from 150 to 610. The trucking industry has recently tried to improve truck driver training by establishing a program to certify truck driver training programs, the first eight of which were certified in January 1989. The FHWA needs to reconsider whether tractor-trailer drivers should receive formal training as a condition for licensing and whether there should be any minimum federal standards for such training. (CML)

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**Resources, Community, and  
Economic Development Division**

B-229018

August 3, 1989

The Honorable Ernest F. Hollings, Chairman  
The Honorable John C. Danforth, Ranking  
Minority Member  
Committee on Commerce, Science  
and Transportation  
United States Senate

The Honorable J. James Exon, Chairman  
The Honorable Bob Kasten, Ranking  
Minority Member  
Subcommittee on Surface Transportation  
Committee on Commerce, Science  
and Transportation  
United States Senate

In response to your request and subsequent agreements with your offices, we examined the types of training available for tractor-trailer drivers. We focused our review on (1) the Federal Highway Administration's (FHWA) efforts to establish minimum federal standards for training tractor-trailer drivers, (2) the driver training curriculum offered by various private and public schools, and (3) the trucking industry's efforts to improve the quality of driver training.

**Results in Brief**

Currently, there are no federal or state requirements that tractor-trailer drivers receive formal training as a condition for licensing and no minimum federal standards governing any training that may be provided. This situation exists even though driver error has been and continues to be cited as the major cause of truck accidents. While FHWA recognized as early as 1976 a need to improve tractor-trailer driver training programs, it did not develop proposed minimum standards for training programs until 1984. A year later, FHWA published a model curriculum for training tractor-trailer drivers.

Since 1984, three governmental organizations have recommended that FHWA complete its proposed minimum training standards. According to FHWA's Associate Administrator for Motor Carriers, FHWA has no plans to complete the standards because (1) many training schools have voluntarily used FHWA's proposed model curriculum to develop their own training curricula and (2) by April 1, 1992, all truck drivers will have to pass written and driving tests that meet minimum federal standards.

For these two reasons, FHWA considers it unnecessary to spend an estimated \$5 million and several years of effort to complete the standards. FHWA was not able to provide us with documentation on its cost and time estimates for completing the standards.

Our review of tractor-trailer driver training programs offered by 24 private training schools and 12 public education institutions (e.g., community colleges) showed a wide variance in the course curricula, hours of training, and costs. For example, the number of training hours offered by the training schools ranged from 150 to 610 hours.

The trucking industry has recently tried to improve truck driver training by establishing a program to certify truck driver training programs.<sup>1</sup> In January 1989, courses offered by eight driver training schools were the first to be certified under the new program.

We believe that FHWA needs to reconsider whether tractor-trailer drivers should receive formal training as a condition for licensing and whether there should be any minimum federal standards for such training.

## Background

Various federal government agencies cite driver error as the major cause of truck accidents. For example, a 1982 National Highway Traffic Safety Administration study estimated that 80 percent of truck accidents were due to driver error. A 1985 FHWA-funded study found that driver error was the prime factor in almost 95 percent of preventable accidents. A 1988 Office of Technology Assessment (OTA) study cited human error as the cause of over 60 percent of commercial motor vehicle (heavy truck and bus) accidents.

Individuals learn to drive a commercial vehicle by choosing either formal training offered by a variety of educational facilities or such informal means as training from a friend or relative. FHWA recognizes that tractor-trailer drivers need special training and skills but has not established formal training requirements.

<sup>1</sup>The Professional Truck Driver Institute of America (PTDIA) is a nonprofit organization, established in 1985 by the Trucking Industry Alliance, whose primary purpose is to advance truck driver training, proficiency, safety, and professionalism to the highest standards possible. PTDIA recently established certification standards with which to conduct voluntary evaluations of tractor-trailer driver training programs. Based on program-specific criteria, the certification process focuses on a variety of a tractor-trailer training program areas, including the number of instruction hours for each required training component, the training vehicles and facilities available, and the qualifications of instructors.

Formal truck driver training in the United States is primarily available from three sources: (1) private truck driver training schools operated as independent businesses; (2) public education institutions (state, junior, and community colleges); and (3) in-house motor carrier training programs. Although there are no minimum federal training standards, truck driver training schools may be accredited by a variety of organizations, including the National Association of Trade and Technical Schools, the National Home Study Council, and regional associations of colleges and schools.<sup>2</sup> However, the majority of training schools are not accredited or certified.

## Commercial Motor Vehicle Safety Act of 1986

In October 1986, the President signed into law the Commercial Motor Vehicle Safety Act of 1986. The act's goals are to improve driver quality, remove problem drivers from the highway, and establish a standardized licensing system. In July 1988, FHWA published in the Federal Register (53 Fed. Reg. 27628) a final rule establishing minimum federal standards for states to use in testing commercial drivers, including truck drivers.<sup>3</sup> FHWA has established April 1, 1992, as the date all truck drivers must pass written and driving tests that meet minimum federal standards.

## FHWA's Proposed Minimum Training Standards

In June 1976, FHWA published an Advance Notice of Proposed Rulemaking concerning a "recommended practice" for training tractor-trailer drivers. This was done to reduce accidents through improved tractor-trailer driver skills. The Advance Notice stated that there was a need to improve tractor-trailer driver training programs by standardizing curriculum content and duration; specifying minimum requirements for types of training materials, vehicles, and facilities to be used; and specifying the qualifications of instructors. FHWA decided to propose these practices for several reasons, including the following:

<sup>2</sup>Accreditation is the voluntary evaluation of a private trade and technical career school's educational quality and institutional integrity. Based on institution-oriented criteria, the accreditation process focuses on such areas as the training school's educational objectives, student recruiting and admissions practices, faculty, programs and curricula offered, and business practices. Because accreditation is institution-oriented and not program-specific, there are no accreditation criteria applicable only to tractor-trailer driver training programs.

<sup>3</sup>The act specifically covers drivers of commercial vehicles with a gross vehicle weight rating (manufacturer's specified loaded weight) of 26,001 pounds or more, drivers hauling hazardous materials, and drivers transporting more than 15 passengers.

- FHWA accident data indicated that commercial vehicle drivers tended to have more accidents during their first few months of employment, which is indicative of inadequate training and experience.
- Studies of truck driver training schools conducted by independent research contractors, FHWA, and other government agencies reported a wide disparity in the emphasis placed on various safety aspects of training, such as the amount of driving practice given students.
- Generally accepted training standards or minimums were lacking.

FHWA specified in the Advance Notice that developing and implementing the recommended driver training practice would involve four phases. FHWA would (1) develop a set of standards that would constitute a "recommended practice" for training tractor-trailer drivers, (2) validate the "recommended practice" once it was in use, (3) issue a national training standard to replace the "recommended practice" upon completion of the validation study, and (4) closely monitor training programs and modify them as necessary.

Eight years after the Advance Notice of Proposed Rulemaking was published, FHWA released in 1984 its Proposed Minimum Standards for Training Tractor-Trailer Drivers. These standards prescribed a minimum 320-hour course lasting 8 weeks if taken on a full-time basis. FHWA stated that the proposed minimum standards were intended to serve as a discretionary guide to be used along with other data and were not to be construed as mandatory requirements. In 1985, FHWA published its Model Curriculum for Training Tractor-Trailer Drivers, which is based on the proposed minimum standards. The model curriculum is an 8-week, 320-hour course that trucking companies, training schools, and other organizations can use to develop their own programs.

FHWA considered this curriculum a basic or "core type" of curriculum. According to FHWA, graduates of this curriculum cannot be considered fully trained until the curriculum is considerably expanded and enriched to provide both additional driving time and material pertinent to the particular driving job that the student is being trained for.

Since 1984, the Department of Transportation's National Highway Safety Advisory Committee, OIA, and the National Transportation Safety Board (NTSB) have all recommended that FHWA complete its proposed minimal training standards. (See app. I.) According to FHWA's Associate Administrator for Motor Carriers, there are no plans to complete the proposed standards because (1) many training schools have voluntarily adopted the model curriculum and (2) all truck drivers will need to pass

written and driving tests by April 1, 1992, that meet minimum federal standards. FHWA thus considers it unnecessary to spend an estimated \$5 million and several years effort to complete the standards. FHWA was unable to provide us with documentation concerning these estimates.

## Formal Truck Driver Training Varies

We found a wide variance in the truck driver training curricula offered, hours of instruction, types of instruction, and fees charged at the 24 private and 12 public schools from which we obtained information. (See app. II.) Of the 36 schools we contacted, 34 were accredited; 7 of the 34 accredited schools were also certified.

## Private Schools

We found that the total number of curriculum hours varied among the private schools. The total hours of on-site training offered by the 24 schools ranged from 150 to 340 hours; 6 of the 24 schools offered 320 or more hours of on-site training.

There was also a wide variance in the number of hours of instruction for the training components (i.e., hours of classroom, range<sup>1</sup> and street driving instruction). For example, the amount of classroom instruction offered by the 24 schools ranged from 18 hours (or 12 percent of the total instruction hours) at 1 school to 160 hours (or 73 percent of the total instruction hours) at another. Of the 24 schools, 5 required their students to complete a specific number of home study lessons before they participated in the resident training program, which includes classroom and driving instruction. The number of home study lessons required by the 5 schools ranged from 36 lessons at 1 school to 80 lessons at another school. The amount of classroom instruction offered by these 5 schools also ranged from 18 to 160 hours. Additionally, the amount of street driving instruction offered by the 24 schools ranged from 20 hours (or 7 percent of the total instruction hours) at one school to 180 hours (or 60 percent of the total instruction hours) at another.

We found that student/teacher ratios for classroom instruction, range instruction, and street instruction ranged from 10:1 to 40:1, 1:1 to 15:1, and 1:1 to 5:1, respectively. Also, the number of hours students spend in behind-the-wheel driving (includes both range and street driving)

<sup>1</sup>Range instruction involves lessons in such areas as coupling and uncoupling a tractor-trailer, straight and blindside backing, alley docking, and parallel parking. This instruction typically occurs on an off-street "driving range."

ranged from 16 to 180 hours. The tuitions and fees at the 24 private schools ranged from \$1,500 to \$5,740.

## Public Schools

Information we obtained on truck driver training programs from 12 public schools located in 12 states also showed variances in the curriculum and instruction hours offered:

- The total number of curriculum hours offered by the schools ranged from 150 to 610 hours; 4 of the 13 schools offered 320 or more hours of resident training.
- The amount of classroom instruction ranged from 12 hours (or 8 percent of the total instruction hours) at one school to 160 hours (or 50 percent of the total instruction hours) at another.
- The amount of street driving instruction ranged from 20 hours (or 11 percent of the total instruction hours) at one school to 490 hours (or 80 percent of the total instruction hours) at another school.
- The student/teacher ratios for classroom instruction, range instruction, and street instruction ranged from 6:1 to 24:1, 1:1 to 5:1, and 1:1 to 5:1, respectively.
- The number of hours students spend in behind-the-wheel driving ranged from 14 to 142 hours.
- The tuitions and fees for in-state students ranged from \$100 to \$2,500.

## Industry Efforts to Improve Truck Driver Training

The trucking industry has recently undertaken an effort to improve truck driver training by certifying truck driver training programs. (See app. III.) A 1986 NTSB report recommended that the Professional Truck Driver Institute of America develop a program for evaluating truck driver training schools. PTDIA used FHWA's proposed minimum standards to develop its own training certification criteria based on a 147.5-hour training program. PTDIA's President stated that the primary purpose of the certification criteria are to provide a way to determine which schools produce good entry-level drivers. The certification program has the support of the trucking industry, including the Interstate Truckload Carriers Conference and the National Association of Truck Driving Schools. PTDIA's first certification of courses offered by eight driver training schools was completed on January 15, 1989.

## Conclusions

FHWA does not have any current plans to complete the minimum federal standards for tractor-trailer training that it first initiated in 1976. During our work, however, we noted the following:

- Driver error continues to be cited as the major cause of truck accidents.
- Recognizing that truck driving requires special skills, three federal organizations have recently recommended that FHWA complete the minimum standards it proposed in 1984. FHWA believes, however, that it is unnecessary to spend an estimated \$5 million and several years effort to complete the minimum standards.
- Wide variances in the curricula, hours of training, and costs exist at the 36 training schools we reviewed. Additionally, the majority of truck driver training schools are not accredited or certified.
- The trucking industry has attempted to improve truck driver training by developing a training school certification program. In January 1989, eight training schools were the first to be certified.

The Congress, FHWA, and the trucking industry have all taken recent actions to improve safety in the trucking industry. Much has occurred since FHWA in 1984 published its proposed minimum standards for training tractor-trailer drivers and in 1985 published its model curriculum for training tractor-trailer drivers. We note, however, that many of the adverse conditions that led FHWA in 1976 to first consider this problem still exist today. Also, over the years FHWA has expended considerable resources to develop knowledge on this issue. Therefore, in light of current conditions, we believe FHWA needs to revisit the truck driver training issue. It can do this by requesting public comments and initiating a new rulemaking that would provide it with the latest information available upon which to base a decision on whether minimum federal training standards should be established.

## Recommendation

We recommend that the Secretary of Transportation direct the Administrator, FHWA, to (1) request public comments on the merits of establishing by regulation formal tractor-trailer training as a uniform standard for the issuance of state commercial drivers' licenses and developing federal standards for such training and (2) if appropriate, initiate a new rulemaking for this purpose.

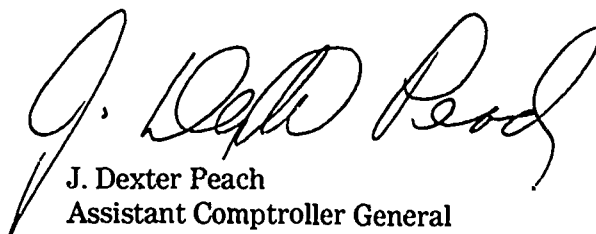
To provide this information in the time requested, we limited our work to a review of FHWA's proposed rulemakings involving training and apprenticeship programs for prospective tractor-trailer drivers. We also examined documents and interviewed FHWA officials at FHWA headquarters in Washington, D.C. We discussed FHWA's proposed standards and the type and quality of truck driver training available with officials of



the Commission of Accredited Truck Driving Schools, PTDA, the Interstate Truckload Carriers Conference, and the National Association of Truck Driving Schools. In addition, we obtained information on accreditation from the National Association of Trade and Technical Schools. Further, we randomly selected 24 private training schools and 12 public education institutions to obtain selective information through telephone interviews with the schools' officials and by reviewing the schools' literature. Of the 36 schools, 34 had received some type of accreditation from one of the accreditation organizations. As requested, we focused on driver training programs offered by private and public training schools and did not obtain data on training provided by motor carriers. Also, we did not test or verify the reliability of the data except by reviewing the schools' brochures and/or catalogs.

We discussed the information in this report with FHWA officials who agreed with the facts presented. However, as requested, we did not obtain official agency comments on a draft of this report. Our work was conducted primarily between March and May 1989 in accordance with generally accepted government auditing standards.

As arranged with your offices, unless you publicly announce its contents earlier, we plan no further distribution of this report until 7 days from the date of this letter. At that time we will send copies to the Secretary of Transportation; the Acting Administrator, FHWA; and other interested parties. Copies will also be provided to others upon request. Our work was performed under the direction of Kenneth M. Mead, Director, Transportation Issues, on (202) 275-1000. Major contributors to this report are listed in appendix IV.



J. Dexter Peach  
Assistant Comptroller General

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Abbreviations

FHWA	Federal Highway Administration
GAO	General Accounting Office
NHTSA	National Highway Traffic Safety Administration
NTSB	National Transportation Safety Board
OTA	Office of Technology Assessment
PTDIA	Professional Truck Driver Institute of America

# Three Studies Recommended Minimal Standards for Training Tractor-Trailer Drivers

In 1984, the Department of Transportation's National Highway Safety Advisory Committee established a subcommittee to examine commercial vehicle safety issues. The Committee reported in 1985 that

"... the process by which one becomes a heavy truck driver in the United States is loose, informal and totally unregulated. In contrast, an airline pilot, a locomotive engineer, a barge pilot, etc., must all be trained (and in some cases certified) before they are allowed to transport people or goods."<sup>1</sup>

Also, the Committee commented that FHWA's Proposed Minimum Standards for Training Tractor-Trailer Drivers represented a first step toward improving the quality of truck drivers and recommended that the Secretary of Transportation give a higher priority to validating the standards so that they could be made available to industry.

In 1986, the National Transportation Safety Board (NTSB) reported that safe truck driving requires special skill and the most reliable way to learn that skill is through formal training.<sup>2</sup> NTSB found that far too many truck drivers were entering the field inadequately trained and were being forced to learn their skills on the road where error can lead to tragedy. NTSB also found that many drivers who received formal training were still not properly prepared because there was no system to evaluate the instruction at all schools and that there were no widely recognized minimum school standards. NTSB concluded that improved truck driver training required proper standards, as well as a way of applying them to the schools and a way of directing prospective students to the schools that measure up well against the standards. NTSB recommended that FHWA validate the proposed minimum training standards as soon as possible.

In 1988, OTA reported on the effectiveness of existing safety policies, regulations, and technologies to meet the government's responsibility for ensuring safety in the motor carrier industry. The report stated that

<sup>1</sup>Commercial Vehicle Safety, A Report to the Secretary of Transportation by the National Highway Safety Advisory Committee, National Highway Traffic Safety Administration (May 1985), p. 2.

<sup>2</sup>Training, Licensing, and Qualification Standards for Drivers of Heavy Trucks, National Transportation Safety Board, NTSB/SS-86/02 (Apr. 1986).

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**Appendix I  
Three Studies Recommended Minimal  
Standards for Training Tractor-  
trailer Drivers**

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"... the level of driver training is the second most frequently cited factor for motor carrier accidents. Although reliable statistics do not exist, industry experts estimate that the majority of drivers have not had adequate formal training."<sup>3</sup>

Further, OTA stated that the Congress may wish to consider requiring that national guidelines for truck driver training be developed and validated.

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<sup>3</sup>Gearing Up for Safety: Motor Carrier Safety in a Competitive Environment, OTA-SET-382, U.S. Congress, Office of Technology Assessment (Washington, D.C.: U.S. Government Printing Office, Sept. 1988), p. 145.

# Analysis of Commercial Driver Training Programs

FHWA's proposed minimum standards for training tractor-trailer drivers described a training program of 320 hours. The training program's curriculum consisted of 86.5 hours of classroom instruction (or 27 percent of the total instruction hours), 117.5 hours of range instruction (or 37 percent of the total instruction hours),<sup>1</sup> and 116 hours of street driving instruction (or 36 percent of the total instruction hours).

In 1988, the Professional Truck Driver Institute of America (PTDIA) used FHWA's proposed standards to develop its own voluntary certification criteria for a 147.5-hour training program. The criteria prescribe a training program consisting of 78.0 hours of classroom training (or 53 percent of the total instruction hours), 44.25 hours of range instruction (or 30 percent of the total instruction hours),<sup>2</sup> and 25.25 hours of street driving instruction (or 17 percent of total instruction hours).

As shown in tables II.1 and II.2, the number of curriculum hours offered by the 36 training programs we obtained information on ranged from a low of 150 hours (for example, school A in table II.1) to a high of 610 hours (school L in table II.2). Of the 36 training schools, 7 offered training programs that were 320 hours long. While the seven schools' total instruction hours were the same, we found variances in the emphasis that these schools placed on the areas of training. For example, the number of classroom hours offered by these seven schools ranged from 90 hours (or 28 percent of the total instruction hours) to 160 hours (or 50 percent of the total instruction hours). Also, the number of range instruction hours ranged from 60 hours (or 19 percent of the total instruction hours) to 114 hours (or 36 percent of the total instruction hours). Additionally, the number of street driving instruction hours ranged from 80 hours (or 25 percent of the total instruction hours) to 160 hours (or 50 percent of the total instruction hours).

<sup>1</sup>FHWA's proposed standards included laboratory instruction requirements, which refer to any instruction occurring outside a classroom that does not involve actual operation of a vehicle or its components. Specifically, FHWA's proposed standards included 25.25 hours of laboratory instruction and 92.25 hours of range instruction. Several schools from which we obtained information included this type of instruction in their range instruction hours. Therefore, we merged FHWA's laboratory and range instruction hours into the range instruction hours for comparison purposes.

<sup>2</sup>Similar to FHWA's standards, PTDIA's certification criteria include laboratory and range instruction hours. Specifically, the criteria prescribe that schools provide 25.5 hours of laboratory instruction and between 18.75 and 21.75 hours of range instruction. For comparison purposes, we merged PTDIA's laboratory and range instruction hours into the range instruction hours.

**Appendix II  
Analysis of Commercial Driver  
Training Programs**

**Table II.1: Truck Driver Training Program Curriculum Hours Offered by 24 Private Training Schools**

School	Classroom instruction		Range instruction		Street driving instruction		Total	
	Hours	Percentage of total	Hours	Percentage of total	Hours	Percentage of total	Hours	Percentage of total <sup>a</sup>
A <sup>b</sup>	42.5	28	57.25	38	50.25	33	150	100
B <sup>c</sup>	18	12	66	44	66	44	150	100
C	40	25	60	37	60	37	160	100
D <sup>d</sup>	54	33	54	33	54	33	162	100
E <sup>e</sup>	65	30	65	30	86	40	216	100
F <sup>f</sup>	160	73	30	14	30	14	220	100
G	80	27	40	13	180	60	300	100
H	100	33	100	33	100	33	300	100
I	130	43	100	33	70	23	300	100
J	150	50	75	25	75	25	300	100
K	70	23	140	47	90	30	300	100
L	122	40	90	30	90	30	302	100
M	152	50	130	43	20	7	302	100
N	152	50	72	24	80	26	304	100
O	130	43	74	24	100	33	304	100
P	133	44	114.5	38	56.5	18	304	100
Q <sup>g</sup>	80	26	145	47	80	26	305	100
R <sup>g</sup>	84	27	124	40	100	33	308	100
S <sup>g</sup>	100	31	60	19	160	50	320	100
T <sup>g</sup>	120	37	112	35	88	27	320	100
U <sup>g</sup>	145	45	87	27	88	27	320	100
V <sup>g</sup>	90	28	114	36	116	36	320	100
W	96	30	64	20	160	50	320	100
X	152	45	36	10	152	45	340	100

<sup>a</sup>May not add to 100 percent because of rounding.

<sup>b</sup>School requires the completion of 77 home study lessons before participating in the on-site training program.

<sup>c</sup>School requires the completion of 66 home study lessons before participating in the on-site training program.

<sup>d</sup>School requires the completion of 49 home study lessons before participating in the on-site training program.

<sup>e</sup>School requires the completion of 80 home study lessons before participating in the on-site training program.

<sup>f</sup>School requires the completion of 36 home study lessons before participating in the on-site training program.

<sup>g</sup>School certified by the PTDA.

**Appendix II  
Analysis of Commercial Driver  
Training Programs**

**Table II.2: Truck Driver Training Program Curriculum Hours Offered by 12 Public Education Institutions**

School	Classroom instruction		Range instruction		Street driving instruction		Total	
	Hours	Percentage of total	Hours	Percentage of total	Hours	Percentage of total	Hours	Percentage of total <sup>a</sup>
A	12	8	12	8	126	84	150	100
B	40	23	56	32	80	45	176	100
C	38	21	122	68	20	11	180	100
D	32	17	100	52	60	31	192	100
E	60	25	90	37	90	37	240	100
F	51	19	114	42	105	39	270	100
G	90	33	0	0	180	67	270	100
H	85	28	103	34	112	37	300	100
I	160	50	80	25	80	25	320	100
J	128	40	64	20	128	40	320	100
K	100	22	275	61	75	17	450	100
L	48	8	72	12	490	80	610	100

<sup>a</sup>May not add to 100 percent because of rounding.

## Student/Teacher Ratios

FHWA's proposed standards recommended a 12:1 student/teacher ratio for classroom instruction, a 6:1 student/teacher ratio for basic range instruction, and a 3:1 student/teacher ratio for street instruction. As shown in tables II.3 and II.4, the schools' student/teacher ratios for classroom instruction ranged from 6:1 to 40:1, the ratios for range instruction ranged from 1:1 to 15:1, and the ratios for street instruction ranged from 1:1 to 5:1.



**Appendix II  
Analysis of Commercial Driver  
Training Programs**

**Table II.3: Student/Teacher Ratios at 24  
Private Training Schools**

School	Student/teacher ratio		
	In the classroom	Range	Street driving
A	25:1	8:1	3:1
B	25:1	5:1	3:1
C	23:1	1:1	1:1
D	40:1	6:1	3:1
E	30:1	10:1	2:1
F	10:1	4:1	1:1
G	35:1	6:1	4:1
H	28:1	12:1	4:1
I	10:1	1:1	4:1
J	24:1	4:1	2:1
K	16:1	4:1	4:1
L	35:1	9:1	3:1
M	30:1	15:1	1:1
N	32:1	9:1	3:1
O	32:1	9:1	3:1
P	24:1	9:1	3:1
Q	16:1	4:1	5:1
R	30:1	4:1	4:1
S	12:1	3:1	3:1
T	20:1	4:1	5:1
U	24:1	3:1	3:1
V	35:1	12:1	3:1
W	20:1	5:1	4:1
X	20:1	15:1	3:1

Appendix II  
 Analysis of Commercial Driver  
 Training Programs

**Table II.4: Student/Teacher Ratios at 12 Public Education Institutions**

School	Student/teacher ratio		
	In the classroom	Range	Street driving
A	4:1	3:1	3:1
B	24:1	5:1	3:1
C	6:1	2:1	2:1
D	10:1	5:1	1:1
E	21:1	3:1	2:1
F	20:1	2:1	2:1
G	8:1	4:1	4:1
H	8:1	5:1	5:1
I	12:1	4:1	3:1
J	16:1	4:1	4:1
K	10:1	1:1	4:1
L	15:1	4:1	4:1

## Behind-The-Wheel Driving Time

Both FHWA's proposed minimum standards and PTDA's certification criteria include a requirement that each student receive a prescribed minimum amount of behind-the-wheel driving time. This driving time includes both range and street driving instruction. FHWA's proposed standard required that each student receive a minimum of both 38.5 hours of actual behind-the-wheel driving and 1,000 miles of driving miles. PTDA's certification standards require that each student receive at least 44 hours of behind-the-wheel driving time.

As shown in tables II.5 and II.6, the number of hours students spend driving behind the wheel at the 36 schools we obtained information on ranged from 14 hours at one school (school C in table II.6) to 180 hours at another (school M in table II.5). Of the 36 schools, 21 required students to spend 38.5 hours or more behind the wheel during their training program.

Appendix II  
 Analysis of Commercial Driver  
 Training Programs

**Table II.5: Number of Behind-The-Wheel  
 Driving Hours for Each Student Attending  
 24 Private Training Schools**

School	Number of hours
A	42
B	45
C	100
D	30
E	170
F	120
G	25
H	30
I	20-25
J	45
K	20
L	35
M	180
N	25-27
O	165
P	40
Q	22.5
R	46
S	30-35
T	44.5
U	45-50
V	44
W	27.5
X	16

**Appendix II  
Analysis of Commercial Driver  
Training Programs**

**Table II.6: Number of Behind-The-Wheel  
Driving Hours for Each Student Attending  
12 Public Education Institutions**

School	Number of hours
A	40-50
B	<sup>a</sup>
C	14
D	85
E	45
F	142
G	100
H	<sup>b</sup>
I	43
J	50-60
K	100
L	30

<sup>a</sup>School official could not provide the number of hours of behind-the-wheel driving a student must complete. However, the official stated that each student drives a total of 1,400 miles behind the wheel during the training period.

<sup>b</sup>School official could not provide the number of hours of behind-the-wheel driving a student must complete. However, the official stated that each student drives a total of 400 miles behind the wheel during the training period.

**Tuition and Fees**

As shown in tables II.7 and II.8, the tuition and fees charged by the 36 schools we obtained information on ranged from \$100 at one school (school G in table II.8) to \$5,740 at another (school O in table II.7).

**Appendix II  
Analysis of Commercial Driver  
Training Programs**

**Table II.7: Students' Tuition and Fees at  
24 Private Training Schools**

School	Tuition and fees (dollars)
A	\$2,995
B	3,495
C	1,500
D	2,795
E	4,190
F	3,290
G	3,530
H	3,695
I	3,195
J	3,295
K	3,450
L	2,795
M	3,695
N	3,390
O	5,740
P	3,290
Q	3,120
R	3,720
S	4,195
T	3,695
U	3,495
V	3,440
W	<sup>a</sup>
X	3,590

<sup>a</sup>Not available.

**Appendix II  
Analysis of Commercial Driver  
Training Programs**

**Table II.8: Students' Tuition and Fees at  
12 Public Education Institutions**

<b>School</b>	<b>Tuition and fees<sup>a</sup> (dollars)</b>
A	\$750
B	652
C	250
D	2,100
E	500
F	311
G	100
H	2,500
I	1,660
J	900
K	450
L	752

<sup>a</sup>Tuition and fees shown for some schools are the costs for students who meet the residency criteria. Tuition and fees for nonresidents may be higher.

# Trucking Industry's Efforts to Improve Truck Driver Training

During the past year, the trucking industry has attempted to improve truck driver training by developing a training school certification program. The industry has become more active because of the current and projected shortage in available truck drivers. For example, in a November 1987 speech, the Executive Director of the Interstate Truckload Carriers Conference in a November 1987 speech stated,

"... 10 percent of my membership responded to a survey and indicated they were 594 drivers short and expected to be some 3,300 drivers short in the next 12 months. It's safe to say that at any given time, some five percent of my members' equipment is idle because of the driver shortage. Some weeks, it probably goes as high as 10 percent."

Several industry organizations have stated that there could be a 30-percent shortfall of qualified drivers by 1992. The trucking industry believes this shortage is due to a shrinking labor pool and new federal laws designed to remove unsafe drivers from the road.

## Certification Program

PTDIA has developed a certification program for truck driver training schools. To assist in developing the certification criteria, PTDIA established a committee comprising representatives from motor carrier fleets, truck driver training schools, and three professors from the academic community. PTDIA also held two public forums in 1987 to obtain comments on its certification program and selected five training schools and a cooperative program between a carrier and a training school to test the effectiveness and cost of the certification process.

PTDIA began the first certification reviews in mid-1988. The review consists of a 2-day, two-person, on-site evaluation of a school's training courses. The results of the review are presented to PTDIA's Certification Board for approval. On January 15, 1989, the Board certified courses offered by eight driver training schools.

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