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COMPARING THE ARMY'S 88M ADVANCED INDIVIDUAL
TRAINING COURSE TO A CIVILIAN VEHICLE OPERATOR
TRAINING COURSE

By

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Abstract

This research compared heavy-wheeled vehicle operator training between the 88M Advanced Individual Training course at Fort Leonard Wood, Missouri and a leading civilian training course using a comparative analysis technique known as benchmarking. This research investigates five major areas of concern and compares the findings in each area between the two organizations. The comparison of findings is based on the positive or negative gap between the two organizations.

Overall, the program at Fort Leonard Wood is solid. The curriculum is designed to train brand new operators on the Army's most common pieces of equipment. The majority of the training is hands-on and students graduate with a good working knowledge of the operation and maintenance of the equipment.

Landstar Express America (LEA) prepares inexperienced drivers for many different organizations that haul various types of cargo. LEA provides broad-based training for its students to prepare them to work in many different industries. This type of training requires more classroom hours to familiarize students on the variety of vehicles. The goal is to provide quality trained drivers to the transportation industry.

Chapter 1

Introduction

The United States Army trains hundreds of heavy-wheeled vehicle operators each year. Most new recruits have very little formal training when they enlist. After basic training, soldiers attend Advanced Individual Training (AIT) at Fort Leonard Wood, Missouri where they are given specialized training in their career field. This training process is designed to produce heavy-wheeled vehicle operators able to drive the Army's current inventory of equipment.

The purpose of this research was to determine the differences between the United States Army's Advanced Individual Training Program of Instruction for heavy-wheeled vehicle operators (88M's) and a civilian vehicle operator training company in order to identify differences that could possibly improve the Army's program. This research examines five different areas to conduct an assessment and compare the programs of each organization. First, identify specific criteria to compare the two organizations. Second, identify a suitable civilian organization with a reputation for producing quality drivers. Third, determine how the Army conducts AIT for the 88M soldiers. Fourth, determine how the civilian company conducts driver's training. Finally, assess the differences between both organizations.

This research is limited to comparing the program of instruction of the 88M course to a civilian tractor-trailer training company. Although an exact match of each of their training programs is not possible due to different missions, the basic training goals are the same. The next chapter reviews the Army's approach to training, an overview of the 88M POI and an overview of the benchmarking technique. Chapter three specifies the research methodology used to conduct the study and answers the five addressed areas. Chapter four provides a report and analysis of gathered data. Finally, chapter five details the recommendations for further research, and reports any conclusions.

Chapter 2

Literature Review

This chapter presents a review of literature relevant to the study. First, discuss a review of the Army's approach to training. Second, discuss the 88M AIT driver's program. Finally, present an overview of employing a benchmarking technique.

Training prepares soldiers, leaders, and units to fight and win in combat-the Army's basic mission. Two parent manuals FM 25-100, Training The Force and FM 25-101, Battle Focused Training are devoted to training. These manuals provide authoritative foundations for individual, leader, and unit training. Individual training must develop soldiers who are proficient in battlefield skills, disciplined, physically tough, and highly motivated. Leader training is an imperative for every echelon. It is an investment in the Army of today and tomorrow. Unit training must prepare our forces for the rigors of the battlefield.¹

The foundation of the Army's training program is vested in the principles of training. The first one, train as a combined arms and services team, is the essence of integration. Units must be prepared to execute operations as combined arms teams across the full spectrum of combat, combat service and combat service support. Thus leaders must practice and develop relationships in peacetime training that will transition in war. The second principle, train as you fight, is the foundation for maximizing combat

effectiveness. It requires leaders to integrate realistic conditions into training to build confidence and assess performance. The third principle, use appropriate doctrine, identifies common procedures to allow commanders to standardize operations and provide a basis from which to fight. Use performance oriented training, the fourth principle, fosters proficiency in performing critical tasks. There is no viable substitute for hands-on training. We all learn and retain information and tasks by doing them. Train to challenge, the fifth principle, builds confidence and demonstrates competence in soldiers. There is nothing more rewarding to a soldier than experiencing challenging training that promotes initiative and fosters teamwork. The sixth principle, train to sustain proficiency, is the backbone of training. Sustainment training prevents the erosion of skills and keeps individuals and units within the band of excellence. Train using multi-echelon techniques allows individuals, leaders, and units to sustain critical tasks. The seventh principle, train to maintain, is critical to mission accomplishment. Maintenance and readiness of equipment determines success or failure on the battlefield. Finally, commanders should be the primary trainers and training managers in an organization ².

Army driver training is important because “before a truck can effectively perform its mission, its personnel must possess the skill and knowledge to safely operate motor vehicles ³. Army professional drivers constitute only 10 percent of Army soldiers who drive vehicles. Professional drivers are full-time operators of a variety of transport vehicles. These drivers are designated MOS 88M and receive specialized driver training. The majority of soldiers who drive are trained for a specific piece of equipment once they arrive at their unit.

The Army driver training program has undergone changes due to force reductions, budget cuts, and technology changes. Currently, Fort Leonard Wood hosts the Motor Transport Operator's Course as part of an interservice training review organization (ITRO) course. The course has been changed from an eight-week familiarization course to a six-week qualification course where instructors train soldiers on vehicles they will drive at their first unit. The purpose is "to provide the specialty and technical ability to perform the duties of a motor vehicle operator of light and medium tactical wheeled vehicles under varying field conditions and convoy operations. Also to provide initial entry training to enlisted personnel who are re-classified or who enlisted as a motor transport operator"⁴.

The standard is for drivers to graduate from AIT with a class B Army Commercial Drivers License (ACDL). This parallels the civilian Commercial Drivers License (CDL). Students receive a Class B license after passing a written and hands-on test on the 5-ton cargo truck. Drivers may be awarded the Class A license if they pass the ACDL test on M915 and M872 tractor/trailer combination. Unless a soldier has had previous experience the goal of receiving a Class A license at AIT is unrealistic.

The 88M AIT consists of three major modules that span over six weeks. Module A is the Motor Transport Operator Supporting Skills and Knowledge block of instruction. This module provides the Army and Marine Corps students with the supporting skills and knowledge required to perform as a motor transport operator⁵. The following are a list of topics covered in Module A: Defensive Driving, Technical Manuals (TM's), Field Manuals (FM's) and Lubrication Orders (LO's), Vehicle and Equipment Operational Record, Ground Guide Visual Signals, Use of Strip Map in Motor Transport Operations,

Entries on DD Form 518 and SF91, Personal Health and Hazardous Materials Rules, Transporting Cargo, and Loading Personnel ⁶. Module B is designed to meet minimum standards and to ensure the driver has the knowledge and essential skills for safe vehicle operation ⁷. Module B consists of: 5-Ton Cargo Truck, Vehicle Inspection, Basic Control of the Vehicle, Drive 5ton Cargo Truck On/Off Road, Drive 5-Ton Cargo Truck in Convoy, Vehicle Self Recovery, and Drive Tactical Vehicle in Convoy at Night ⁸. Module C is designed to provide the soldier with skills and knowledge to manipulate controls required to operate the vehicle in basic maneuvers; operate the tractor/semi-trailer combination on a commitment route and in convoy operations ⁹. Module C consists of the following: Start 14-Ton M915 Tractor, Shift Automatic/Semiautomatic Transmission on 14-Ton M915 Tractor, Put 14 Ton M915 Tractor in Motion, Couple 14-Ton M915 Tractor to Semi-trailer, Uncouple 14-Ton M915 Tractor from Semi-trailer, Braking/Stopping 14-Ton M915 Tractor with Semi-trailer, Drive 14-Ton M915 Tractor with Semi-trailer on Roadway, Drive 14-Ton M915 Tractor with Semi-trailer Through Turns, Drive 14-ton M915 Tractor with Semi-trailer Through U-turns, Change Lanes/Pass and Go Through Corners with 14-Ton M915 Tractor with Semi-trailer, Drive 14-Ton M915 Tractor with Semi-trailer Through Serpentine Route, straight-line Backing with 14-Ton M915 Tractor and Semi-trailer, Back 14-Ton M915 Tractor with Semi-trailer to Loading Dock, Drive 14-Ton M915 Tractor with Loaded Semi-trailer in Convoy, Drive 14-Ton M915 Tractor with Loaded Semi-trailer on Commitment, Preventative Maintenance Checks and Services, and Driver Skill Training ¹⁰.

To the layman this program seems to be very comprehensive. It contains a systematic flow of instruction, focuses on hands-on training, and provides the students an

overview of the major types of equipment. However, how does the training developers and training departments know if the training is as good as it can be? To understand this the benchmarking technique can provide answers.

In its simplest form, benchmarking is a process of tracking down business practices and approaches judged to be among the best in the world, then copying and comparing the activities against one's own organization in an attempt to self improve ¹¹. The word benchmark gets its origin from land surveyors who used to benchmark as a reference point to compare elevations. Sun Tzu refers to benchmarking concept when he states "If you know your enemy and know yourself, you need not fear the results of a hundred battles" ¹².

Benchmarking, as applied today in modern U.S. commerce, was pioneered by the Xerox Corporation in the late 1970s, as a result of an effort to improve upon the quality of their copier when market dominance began slipping away. Xerox executed perhaps the most documented benchmarking project when it investigated the L.L. Bean company. Xerox visited the clothing mail order distributor and discovered an efficient warehousing and distribution system it could adapt to its copier business. Today, Xerox has incorporated benchmarking in every facet of doing business and is internationally known for being a leader in the benchmarking industry.

Xerox is not the only corporation to employ benchmarking. Others like Motorola, Ford, GTE, and GM also have adopted the comparison technique as an integral part of their quality improvement programs. Furthermore, the highly coveted Malcom Baldrige National Quality Award requires benchmarking as a necessary element for receiving the honor. ¹³.

Benchmarking, as a management tool, has been thoroughly researched and documented by Robert Camp, manager of benchmarking at Xerox. Robert Camp is considered one of the most prominent experts in the benchmarking field.

Although there are many different benchmarking processes, ranging from Spendolini's generic 5 step method to AT&T's 12 step process, the recognized expert is Robert Camp. Camp identified 10 steps of the Xerox benchmarking process:

1. Identify what is to be benchmarked.
2. Identify comparative companies.
3. Determine data collection method and collect data.
4. Determine current performance gap.
5. Project future performance levels.
6. Communicate benchmark findings and gain acceptance.
7. Establish functional goals.
8. Develop action plans.
9. Implement specific actions and monitor progress.
10. Recalibrate benchmarks.¹⁴

Step One – Identifies the benchmark output and answers the “what” question. Some output candidates include products manufactured, customer requirements, or processes used. Also, company performance measures can indicate what should be benchmarked.

¹⁵.

Step Two – Identifies comparative companies against which to benchmark. An organization can benchmark against internal operations, against external direct product competitors, against external functional industry leaders, or generic. To identify superior

performance, a firm should research trade journals, consultants, professional associations, vendors, or customers. This step answers the “who”.

Step Three – Data collection is finding the information on best practices. The most common method is direct site visit. Telephone and mail surveys are also possible. This step answers the “how.”

Step Four – Up to this point, the output has been defined and data have been collected from the industry leader. Now the measurement of the product or service is compared with the measurements of the benchmarked company. The result is a positive or negative performance gap.

Step Five – Here the firm measures the gap and sets new company performance goals to close the gap over a forecasted time frame.

Step Six – After management has accepted the findings, strategies are formulated to improve process performance to achieve significant benchmarks identified in the previous step.

Step Seven – The firm writes specific objectives based on benchmarking findings to formulate or update goals.

Step Eight – The firm identifies changes necessary to achieve benchmark findings and develops action plans.

Step Nine – Once the findings have been developed and converted to accepted action plans, the final acts of implementation and monitoring are next. This step covers implementing and monitoring benchmarking action plans, and installing best practices.

Step Ten – The final step requires reevaluation of the process to stay current with changing conditions and eventual institutionalizing of benchmarking.

This chapter discussed the importance of the Army's training program, presented a comprehensive overview of the 88M POI, and detailed the benchmarking process. The following chapter will specify the methodology used to answer the five areas of concern stated in Chapter one.

¹ Department of the Army, *Training the Force*, FM 25-100, Washington: HQ USA, 1988, i.

² Ibid, 1-3 – 1-5

³ Department of the Army, *Army Motor Transport Units and Operations*, FM 55-30, Washington: HQ USA, 1989, 9-5.

⁴ Program of Instruction, 88M10, Fort Leonard Wood, Missouri, Approved 1997.

⁵ Ibid.

⁶ Ibid.

⁷ Ibid.

⁸ Ibid.

⁹ Ibid.

¹⁰ Ibid.

¹¹ Robert C. Camp, *Benchmarking: The Search for Industry Best Practices That Lead to Superior Performance*, (Milwaukee: American Society for Quality Control, 1989) 15.

¹² Sun Tzu, *The Art of War*, (New York: Oxford University Press, 1963), 45.

¹³ Robert C. Camp, *Benchmarking: The Search for Industry Best Practices That Lead to Superior Performance*, (Milwaukee: American Society for Quality Control, 1989) 20.

¹⁴ Ibid, 17.

¹⁵ Ibid, 49.

Chapter 3

Methodology

The benchmarking process was used to analyze the tractor-trailer operator training programs of the 88M Advanced Individual Training at Fort Leonard Wood, Missouri and Landstar Express America (LEA). Benchmarking is a method of improving business operations through comparing chosen processes and/or products of a company against those of a recognized industry leader

The first area of concern was what tractor-trailer operator training should be benchmarked. This research focused on areas within the training programs of each organization. To determine how this product is produced each of the two programs were separated into specific, like components for comparison.

The next area was to determine which civilian company had a strong reputation for producing quality drivers. A random sample of trucking organizations filed with the Interstate Commerce Commission was used to select the candidates. This was followed by telephone interviews using concise questionnaires with the operations manager of each organization to determine the type of training program each organization offered.

The third area was assessing the training method used for the 88M soldiers at Fort Leonard Wood. To study the 88M drivers training program certain components of the

teaching process were broken down and those elements similar to civilian tractor-trailer (T/T) training programs were chosen for comparison against LEA training processes.

The fourth area was assessing the training method of LEA. Before the two organizations' training programs could be compared, information on LEA's program had to be collected and analyzed. This was primarily accomplished through telephone interviews and mail correspondence. The LEA program was broken down into six benchmark categories in order to compare the two organizations.

The fifth area was to determine the performance gaps that exist between the two programs. Performance gaps signify differences in the training programs. As stated in the literature review, comparative analysis of internal operations to operations of a recognized industry leader can be accomplished by qualitative and quantitative methods¹. In order to determine gaps between the two programs a qualitative and quantitative analysis was conducted. Components of each program were compared to determine differences. Additionally, the time spent on teaching each component to identify differences was analyzed.

This chapter outlined the methodology used to answer the areas of concern as stated in Chapter one. In Chapter four the findings of the analysis are presented. Finally, in Chapter five conclusions of the comparison are presented along with recommendations for future research.

¹ Robert C. Camp, *Benchmarking: The Search for Industry Best Practices That Lead to Superior Performance*, (Milwaukee: American Society for Quality Control, 1989) 129.

Chapter 4

Findings

This chapter reports findings of the areas of concern posed in Chapter one and three. There are five investigative areas that are used to compare and assess the similarities and differences between the 88M POI and LEA.

The first investigative area identifies what areas of tractor-trailer operator training should be benchmarked. The following areas are identified to benchmark:

1. Entrance requirements
2. Course Content
3. Instructor qualification criteria
4. Teaching aids
5. Equipment
6. Evaluation

These areas were chosen because they cover all the major components of the 88M POI.

The second investigative area determines which civilian company has a strong reputation for producing quality drivers. A telephone survey was used to poll firms that recruited heavily from T/T operator training programs. A set of predetermined criteria to

include retention, accident rates, customer service, equipment, facilities, hours of instruction and hands on training was used to determine the best company.

Landstar Express America is an exceptional truck driver training school. The LEA program graduates approximately 500 new drivers per year and has over a 90% placement rate with trucking industry firms. Several trucking firms recruit from LEA regularly.

The third investigative area was assessing the training method used for the 88M soldiers at Fort Leonard Wood. The literature review broke the training down into 3 modules, which are included in the benchmark comparison area.

The first benchmark area is entrance requirements. Students must meet the following conditions:

1. Submit to an interview to ensure they do not have any problems that would hinder training.
2. Pass a physical to include eye examination, color blindness test, and a Battery2 test to determine reaction ability.
3. Screen personal records for any disqualifying items ¹.

The second benchmark area is course content. The drivers training program at Fort Leonard Wood is based on a Program of Instruction developed by the training directorate at the Combined Arms Support Command, Fort Lee, Virginia. The program is designed to train drivers to operate light and medium tactical wheeled vehicles on/off road, over a commitment route and in convoy operations. Additionally, perform vehicle recovery, perform vehicle inspections and prepare operator, maintenance, and accident forms ².

The first module (Module A) is conducted primarily in the classroom to provide drivers with supporting skills and knowledge. There is a total of 24.5 hours of instruction in module A to include defensive driving, manuals, safety, forms, hazardous material, inspecting cargo, and loading personnel.

The second module (Module B) is primarily hands-on training with the 5-Ton cargo truck. There is a total of 155.5 hours of instruction in module B to include hands-on performance tests on PMCS, basic control of the vehicle, and vehicle inspection. Additionally, drivers are tested on their ability to perform various maneuvers in varying weather, road, terrain and convoy conditions.

The third module (Module C) is also primarily hands-on training with the 14-Ton M915 Tractor and Semi-trailer combination. There is a total of 40 hours of instruction in module C to include several hands-on performance tests. Drivers are also tested on their ability to maneuver the tractor-trailer in varying road, terrain, and convoy conditions.

The third benchmark area is instructor qualification criteria. Instructors are chosen based on rank and experience with the equipment used in the program. Most instructors are in the grade of E-6/7 with an average of 16 years of experience. Each instructor is required to attend a 2-week instructor-training course to qualify them to teach students.

The fourth benchmark area is teaching aids. The training department at Fort Leonard Wood has access to films, overhead projectors, video cameras, chalkboards, driving ranges and maintenance facilities to use to teach students.

The fifth benchmark area is equipment. There are ample 5-Ton cargo and dropside vehicles and M915 tractors and trailers to train operators.

The final benchmark area is evaluation. Soldiers must complete the classroom portion of training by passing written exams. This is followed by hands-on tests with equipment to include maintenance and operation. Each module has a variety of written and hands-on tests to demonstrate student knowledge and comprehension.

The fourth investigative area was assessing the training method used by LEA. LEA has a 345 hour course based on the Department of Transportation requirements. The course is offered on a full-time or part-time basis. Admission requirements, the first benchmark area, for LEA's training course is based primarily on the Code of Federal Regulations (CFR) 49. Applicants must meet the following requirements:

1. Have a high school diploma or equivalent.
2. Be at least 21 years old at graduation.
3. Have a valid drivers license.
4. Have an appropriate T/T training permit.
5. Pass a DOT physical.
6. Submit a negative pre-enrollment drug test to LEA.
7. Have a good work history, good character, and a good driving record.³

The LEA program is a broad, generic T/T operator training course. Students use lab to practice skills they have been taught. Students secure cargo with straps, chains, binders, and winches. They practice covering cargo with ropes and tarps, and secure hazardous cargo placards to equipment. Students use forklifts to practice loading, unloading, and positioning simulated cargo on trailers. LEA also has a driver simulator that replicates cab operations under driving conditions.⁴

During the range training students practice forward driving, shifting, coupling/uncoupling, backing, and vehicle inspections for a total of 26.5 hours. Additionally, students spend 28.75 hours practicing skills developed on the range, learning new communication skills, speed and space management, night operations, extreme weather procedures and skid control and recovery.⁵

The third benchmark area is instructor qualification criteria. In order to produce qualified T/T operators, LEA must have high-quality instructors. LEA instructors must have teaching experience, two years of safe T/T driving, meet proficiency requirements for behind-the wheel instruction, have demonstrated knowledge of safe driving practices and principles, have in depth knowledge of equipment used in instruction, and have driving ability exceeding requirements of the course being taught

The school uses a variety of teaching aids, the fourth benchmark area. Instructors use overhead charts, and projectors, films, slide presentations, and videotapes for the basis for classroom instruction. Students also use maintenance manuals, troubleshooting charts, and wall charts. Additionally, truck components built into mock-up systems provide instructors with the ability to enhance verbal instruction with visual aids of actual component operation. These systems allow students to see how components actually function in many areas, like braking and shifting. The school has several acres of lighted, paved driving surface

The fifth benchmark area is equipment. LEA has 22 tractors and trailers for students to use on the driving range. A few of the flatbed trailers are used to demonstrate securing cargo, covering and loading operations. There are also tank trailers to give students a rudimentary understanding of how liquids act under transport conditions.

The final benchmark area is evaluation. At the end of the course the LEA students are given a CDL test as the final exam. Students must score an 80 percent in each area to pass. Students must also take a skills test listed in the CFR 49. If the student passes both portions of the exam, he receives a certificate of completion.⁶

The final investigative area identifies what performance gaps exist between the 88M training program at Fort Leonard Wood and LEA. The performance gaps (positive +/negative-) are annotated within each of the six benchmark areas.

Table 1 shows the comparison for entrance requirements. There are two negative gaps: age and licensing. The age gap is a result of different government agency policies. Statistically more accidents are prevalent in the younger age group. Licensing is a result of a CDL specification that T/T drivers possess valid motor vehicle operator's licenses. CDL does not govern Army T/T drivers so there is no requirement at Fort Leonard Wood.

Table 1 Entrance Requirements

<u>Requirement</u>	<u>Ft. Leonard Wood</u>	<u>LEA</u>	<u>Gap</u>
Education	Diploma	Diploma	0
Age	17	21	4
License	No requirement	Valid license	-
Training permit	Yes	Yes	0
Physical Exam	Yes	Yes	0
Drug test	Yes	Yes	0
Driving record	Yes	Yes	0

Character	Yes	Yes	0
Work history	Yes	Yes	0

Table 2 provides a comparison of course content. Overall LEA's curriculum includes more classroom and operational hours. Some of the operational hours for LEA are conducted in a mock-up system. For purposes of this study these hours were lumped into the operational category.

Table 2 Course Content

<u>Content</u>	<u>Fort Leonard Wood</u>	<u>LEA</u>	<u>Gap</u>
Classroom	27.5	102	-74.5
Maintenance	37.5	16.5	+21
Behind the wheel	157	220	-77
Total	222	338.5	-115.5

Table 3 shows the comparison on instructor driving criteria. Overall the qualifications between the two organizations is about equal.

Table 3 Instructor Criteria

<u>Criteria</u>	<u>Fort Leonard Wood</u>	<u>LEA</u>	<u>Gap</u>
Prior experience	Over 2 years	Over 2 years	0
Outstanding record	Yes	Yes	0
Knowledgeable	Yes	Yes	0
Teaching experience	Yes	Yes	0

Physicals	Yes	Yes	0
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Table 4 compares teaching aids between each organization. Overall each has about the same capability except for one significant difference. LEA possesses a mock-up system used to train drivers on the inner workings of components.

Table 4 Teaching Aids

<u>Teaching aid</u>	<u>Fort Leonard Wood</u>	<u>LEA</u>	<u>Gap</u>
Overhead projector	Yes	Yes	0
Films	Yes	Yes	0
Slide shows	Yes	Yes	0
Maintenance manuals	Yes	Yes	0
Maintenance facilities	Yes	Yes	0
Mock up system	No	Yes	-
Cargo securing device	Yes	Yes	0
Driving range	Yes	Yes	0

In both organizations, students train on basic equipment. Fort Leonard Wood concentrates on the 5-Ton cargo and 14-Ton tractor. These are the most prevalent pieces in the inventory. Students in LEA train on general equipment made for Landstar. Thus after graduation a student may be faced with operating a piece of equipment he is not familiar with. This requires on-the-job training from the hiring trucking firms.

Finally, each organization tests students on both written and behind the wheel exams. The students at Fort Leonard Wood receive a Standard Form 41 as the issuing document. LEA students receive a CDL.

This chapter identified six benchmark areas, determined the most qualified civilian company to use for comparison, described each organization's training program and identified performance gaps in the six areas. Chapter five provides conclusions and recommendations for future research.

¹ Program of Instruction, 88M10, Fort Leonard Wood, Missouri, Approved 1997.

² Ibid.

³ Course Catalog, Landstar Express America, July 1988

⁴ Ibid.

⁵ Ibid.

⁶ Ibid.

Chapter 5

Conclusions and Recommendations

Overall, the program at Fort Leonard Wood is solid. The curriculum is designed to train brand new operators on the Army's most common pieces of equipment. The majority of the training is hands-on and students leave there with a good working knowledge of the operation and maintenance of the equipment.

LEA prepares drivers for many different organizations that haul various types of cargo. LEA provides broad-based training for its students to prepare them to work in many different industries. This type of training requires more classroom hours to familiarize students on the variety of vehicles. The graduates' future employer should provide any further training.

Age is the only significant gap under entrance requirements. It is not practical to raise the age of vehicle operators even though statistically younger operators are more prone to accidents. If that were the case then the entire DoD would have to change the age of enlistment.

Comparing course content is a more difficult challenge due to the various differences in curriculum. Although there are gaps in the number of hours spent on the various categories of instruction, it is mainly due to the different mission of each organization. LEA spends more time in class due to the broad-based mission. The students at Fort

Leonard Wood spend most of their time with hands-on training. Subsequently the 88M students are not as versed in general T/T operations as LEA graduates. LEA students also receive numerous hours of instruction on how specific components and systems operate. This type of training has long-term benefits as drivers are aware what causes wear and tear on the vehicle.

There were no significant gaps concerning instructor criteria. Each organization focused on quality instructors and understood that quality instructors are the backbone of the success of the program.

The most significant gap in teaching aids is the mock-up truck system. This system provides a visual demonstration of the operation of the variety of truck components. This knowledge would prevent excessive wear and tear on equipment and detect maintenance problems earlier.

Lastly, there is no real gap in equipment. Each organization had sufficient equipment to conduct thorough training.

There are a few potential areas for further research to include safety, cost, and CDL. Recommend research be conducted on job safety performance of each of the programs. Also, look at the cost of purchasing an enhanced mock-up system for component training. Finally, conduct research on the impact of the CDL requirements on the 88M training program.

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