



## 5.0 TRUCKING INDUSTRY OVERVIEW

One of the overall objectives of the Northern Colorado Truck Mobility/State Highway (SH) 14 Relocation Study was to provide more information about the operations and characteristics of the trucking industry. This overview provides various facts about the industry including information on trucking operations, a highlight of the different agencies involved in motor carrier regulations, and a discussion on the PrePass System that is being used throughout Colorado.

### 5.1 TRUCKING INDUSTRY FACTS

The trucking industry is a vital part of the American economy and helps businesses send and receive their products. It is also an industry heavily dependant on the Interstate system. The trucking industry was a \$486.1 billion industry in 1998 employing 9.7 million people including over 3 million commercial truck drivers. In terms of volume, trucks transported 7.7 billion tons of freight in 1998 accounting for more than 63 percent of all freight moved within the United States. Hauling this freight required more than 20 million trucks.

Other general, relevant trucking industry statistics as reported by the American Trucking Associations (ATA) Economics and Statistical Analysis Department include:

- Taxes
  - Trucks contribute 10 percent of state vehicle miles traveled but pay 30 percent of all state highway taxes
  - Commercial trucks paid \$13.1 billion in Federal highway user-taxes and \$15.6 billion in state highway user-taxes in 1998
  - Diesel fuel taxes include 24.4¢ Federal tax and 20.9¢ state tax per gallon (January 1999)
  - In relation, gasoline taxes were 18.4¢ Federal tax and 20.5¢ state tax per gallon (January 1999)
- Operating Features
  - Recent fuel prices have fluctuated by more than 60 percent
  - Commercial trucks represent 9.5 percent of all motor vehicles registered
  - Trucks consumed 42.8 billion gallons of fuel (1998)
  - There are 501,744 Interstate motor carriers on file with the Office of Motor Carriers
  - Of these carriers, 72.1 percent operate 6 or fewer trucks and 80.3 percent operate 20 or fewer trucks
  - Trucks transported 74.6 percent of the trade value between the United States and Canada, and 83.2 percent of the trade value between the United States and Mexico (1998)
- Safety and Accidents
  - Since 1988, the truck accident rate has dropped by 32 percent
  - Only 8.5 percent of the vehicles involved in fatal crashes were large trucks (1997)

- Only 1 percent of truck drivers in fatal crashes were intoxicated as compared to 18 percent for automobiles
- In over 70 percent of truck/automobile accidents, the automobile driver has been found to be at fault

In addition to mobility and moving goods, safety and environmental impacts are important concerns of the trucking industry. Some of the safety measures supported and implemented by the industry include commercial drivers license (CDL) requirements, drug and alcohol testing, support for safety devices, and increased safety inspections. Environmental impacts of trucks are also a concern to the trucking industry. These concerns include the impacts of diesel emissions on air quality, wastewater discharge on water quality, and truck noise. Some improvements have been made in the industry to reduce impacts on the environment such as the manufacturing of cleaner trucks, 30 percent increases in fuel efficiency, and new diesel and truck standards being implemented that will make commercial trucks even cleaner by 2006.

Some of the environmental support actions implemented with trucking industry support include:

- Tax incentives for cleaner burning vehicles and sales tax exemption on low emission vehicles
- Access to high occupancy vehicle (HOV) lanes for very clean vehicles
- Clean fuels fleet program
- A best practices program for environmental programs
- Legislation to address compression brake noise

## 5.2 COLORADO TRUCKING INDUSTRY FACTS

In addition to the American economy, the trucking industry is an important part of both the Colorado and City of Fort Collins economy. The trucking industry employed 148,000 people in Colorado in 1999. This translates to 1 out of 11 workers in the state employed in trucking or a trucking-related business. Trucks move approximately 300,000 tons of essential manufactured goods in Colorado each day.

Other general, relevant Colorado trucking industry statistics as reported by the Colorado Motor Carriers Association (CMCA) include:

- Taxes
  - A typical tractor trailer pays over \$13,300 in state and Federal transportation taxes each year
  - These taxes and fees are more than \$1,200 per tractor greater than the national average and more than \$2,000 greater per truck than the taxes and fees for surrounding states
  - Taxes and fees for Colorado trucking operators are the third highest in the country
  - Colorado truck operators pay more than \$250 million in state and Federal taxes annually

- Operational Characteristics
  - Eighty-one percent of all Colorado communities are solely served by trucks for their freight needs
  - Trucks move 86 percent of all manufactured products in Colorado
  - Out-of-state shipments accounted for 57.6 percent of total Colorado shipments (1993)
  - Trucking pays almost \$4.5 billion in salaries, and average of \$31,500 per person

The trucking industry in Colorado has seen increased competition and additional issues that could potentially impact the industry. Some of the challenges and problems faced by the Colorado trucking industry according to CMCA include higher fuel prices, increased congestion, deteriorating roads and bridges, labor shortage, tougher environmental regulations, possibility of new ergonomic rules and hours of service changes that could cripple the industry, shortage of rest space for drivers, and higher taxes and fees than surrounding states.

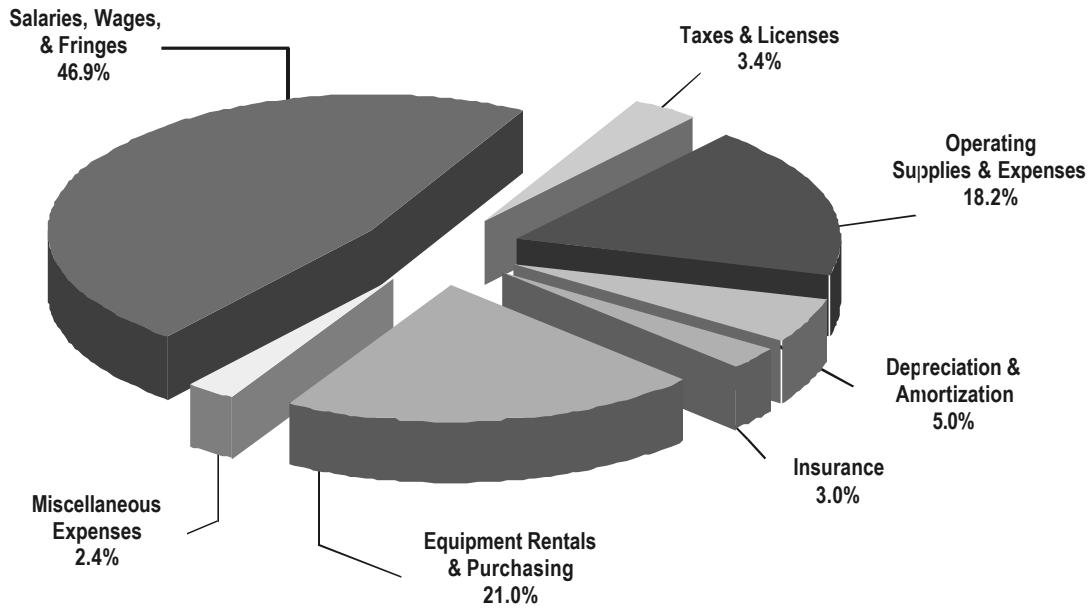
Safety is also a concern in Colorado, especially in Weld County, which has the highest truck related accident rates of any county in the United States. Recent safety actions advocated by CMCA include:

- Highway watch – Similar to a neighborhood watch program for motor carriers where they use a discreet cell phone number to call to report non-emergency incidents
- No-Zone Program - Campaign created in 1994 to educate motorists about how to safely share the road with trucks and buses
- Support for safety legislation such as graduated drivers license and additional state patrol officers
- Numerous training classes
- Truck Safety 2000 Project – Comprehensive motor carrier safety program for Weld County looking at education, enforcement, and engineering strategies to reduce truck related crashes in Weld county

### **5.3 TRUCKING INDUSTRY OPERATIONS**

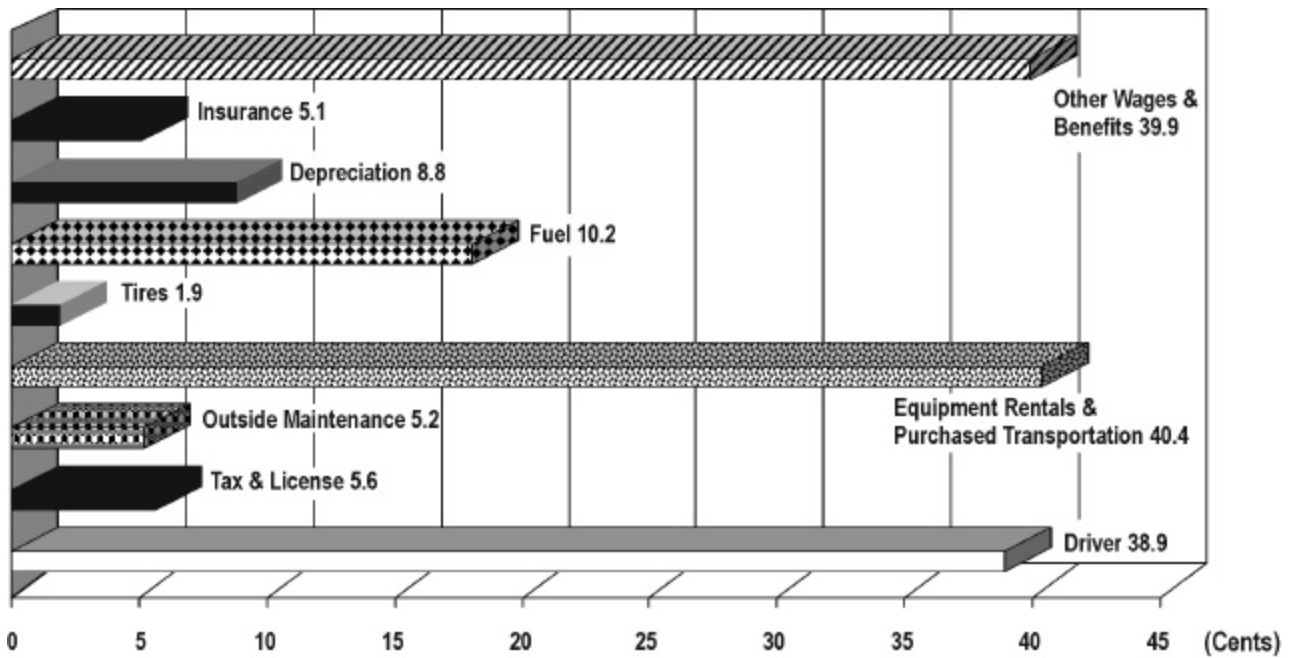
As with many businesses, the trucking industry struggles to meet their expenses while providing service to their customers. Figure 5.1 shows a breakdown of the 1998 operating expenses for commercial vehicles. Labor is the largest expense, while insurance, taxes, and licenses are the smallest percentage of expenses. The trucking industry has a relatively low profit margin compared to other industries mainly due to large operating costs (\$1.74 per mile) as shown on Figure 5.2. In 1998, gross freight revenues were \$51.93 billion and operating costs were \$49.09 billion resulting in a 3 percent profit margin. Mergers and consolidations are on the rise along with the number of bankruptcies and over 3,600 trucking companies closed in 2000.

**Figure 5.1**  
**Commercial Vehicle Operating Expenses Breakdown (1997)**



Source: Motor Carrier Annual Report, ATA Trucking Information Services

**Figure 5.2**  
**Commercial Vehicle Operating Costs per Mile (1998)**



Source: Motor Carrier Annual Report, ATA Trucking Information Services

## 5.4 TRUCKING INDUSTRY REGULATORY OVERVIEW

Regulation of the trucking industry is important to ensure safety for the drivers and the traveling public. There are four agencies involved in Commercial Vehicle Operations (CVO) regulatory activities for the State of Colorado. These four agencies and their duties related to the motor carrier industry are listed below and shown in Table 5.1.

### 5.4.1 Colorado Department of Transportation

Within the Colorado Department of Transportation (CDOT), there are two offices that deal with the regulation of CVO's. They are the Division of Transportation Development (DTD) and the Division of Maintenance and Operations.

DTD is responsible for:

- Truck data collection including truck counts, classification counts, weight data, and data supporting pavement design.
- CVO data collected continuously at different sites in Colorado and annually at 26 weigh-in-motion (WIM) stations throughout the state.

The Division of Maintenance and Operations through its District and Headquarters Permit Office (DPO) is responsible for issuing oversize/overweight (OS/OW) permits and issuing special and/or temporary permits to out-of-state carriers.

### 5.4.2 Department of Revenue

There are four Department of Revenue (DOR) divisions that are involved in CVO regulations. They are the Motor Vehicle Division (MVD), Ports of Entry (POE), Taxpayer Services Division (TSD), and Tax Audit and Compliance Division (TACD).

The MVD is responsible for:

- Registering and titling vehicles
- Collecting ownership tax and registration fees
- Operating the International Registration Plan (IRP)
- Issuing apportioned license plates and cab cards
- Issuing/renewing commercial drivers license (CDL)
- Maintaining driver and vehicle records

**Table 5.1**  
**Agency Commercial Vehicle**  
**Operations (CVO) Responsibilities**

CVO Functions	Colorado Department of Transportation		Colorado Department of Revenue				Colorado Department of Regulatory Agencies	Colorado Department of Public Safety	
	Division of Transportation Development	District Permit Office	Motor Vehicle Division	Port of Entry	Taxpayer Services	Taxation and Compliance	Public Utility Commission	Motor Vehicle Safety Division	Hazardous Material Division
IRP Registration			X						
Vehicle Registration			X						
OS/OW Permitting		X							
Truck Data Collection	X								
CDL Issuance			X						
Fuel Tax Administration					X				
Issue Operating Authority							X		
CVO Enforcement				X			X	X	
IFTA Tax Administration					X				
Regulation of Carrier Rates							X		
Weigh Station/POE Operations				X					
Vehicle Safety Inspection				X				X	
HazMat Permitting				X			X		X
Infectious Waste Permitting				X					X
Hazardous Materials Enforcement				X			X		X
Financial Auditing						X			

Source: COVE Study Final Report and Implementation Plan

The POE is responsible for:

- CVO size, weight, registration, and CDL requirement enforcement
- Weigh station/POE operations
- Vehicle safety inspection
- Hazardous materials permitting and enforcement
- Infectious waste permitting
- Fuel tax collection
- Special fuel permit sales

To operate a motor vehicle on the roads of Colorado, every owner or operator must obtain valid clearance from an officer of the DOR, an officer of Colorado State Patrol (CSP), or from an officer of the POE weigh station before using the road. To use the roads of Colorado, vehicles must secure clearance at the first POE weigh station located within five road miles of the route that would normally be followed from his/her point of departure to the point of his/her destination. However, if an owner or operator has a valid special revocable permit issued by the DOR, they do not need to seek out a POE weigh station. If their route carries through a POE signed area, they must clear the port although they have a permit. The special revocable permit is issued by application to the POE. To qualify for a special revocable permit, a vehicle must be operating through a regularly scheduled route.

The TSD is responsible for fuel tax administration and the International Fuel Tax Agreement (IFTA) Tax Administration

The TACD is responsible for audits and enforcing CVO tax requirements.

### **5.4.3 Department of Regulatory Agencies**

The Department of Regulatory Agencies deals with commercial vehicles through two divisions of the Public Utilities Commission (PUC) including the Transportation Section and the Safety and Enforcement Section.

The Transportation Section is responsible for:

- Interstate and intrastate operating authority
- Single-state registration plan
- Hazardous materials permits

The Safety and Enforcement Section is responsible for:

- Insurance information review
- Vehicle safety inspection
- Compliance review

#### 5.4.4 Department of Public Safety

The CSP is a division of the Department of Public Safety. Two CSP divisions handle CVO regulations. They are the Motor Vehicle Safety Section and Hazardous Materials Section.

The Motor Vehicle Safety Section is responsible for:

- Enforcement of operating authority, vehicle registration, CDL, size and weight, and safety regulations
- Roadside inspections and safety and compliance reviews
- Traffic enforcement and safety review audits

The Hazardous Materials Section is responsible for:

- Enforcement of hazardous materials rules and regulations
- Issuance of hazardous materials trip permits

### 5.5 PREPASS

One of the latest technological breakthroughs in the trucking industry is the PrePass system. PrePass is an automatic vehicle identification (AVI) system that allows participating commercial vehicles equipped with the AVI system to bypass designated weigh stations and POE facilities. Cleared vehicles may proceed at highway speed, eliminating the need to stop. This means greater efficiency for shippers and improved safety for all highway users.

Participating vehicles are pre-certified and the carrier's safety record and credentials are routinely verified with state and Federal agencies. PrePass weigh stations employ weigh-in-motion (WIM) scales to electronically weigh the vehicles while AVI antennas verify the identity and compliance of trucks as they approach the weigh station. As a truck passes over the WIM, its number of axles and gross weight are calculated and the AVI reads the PrePass transponder verifying compliance with state requirements. The AVI antenna also communicates the status of the results to the driver. If weight and credentials are satisfactory, a green light and audible signal advise the driver to bypass the weigh station. Otherwise a red light and audible signal advise the driver to pull into the weigh station for processing.

Both Colorado and Wyoming currently have PrePass in operation at many of their POEs as shown in Table 5.2. The use of the PrePass system has helped many drivers reduce their processing time at the POE's. The PrePass system at the POE near Prospect Road has one of the highest utilization rates in Colorado. In October 2001, almost 24 percent of the vehicles that cleared the POE at I-25 near Prospect Road used the PrePass system. The program has been quite successful, greatly exceeding the projected usage because the PrePass system makes it easier for trucks to stay on the Interstate. Although not easily determined, the PrePass system is more than likely helping to keep through truck traffic off of the existing SH 14/US 287 route and on the Interstate.

**Table 5.2**  
**Colorado and Wyoming PrePass Sites**

Colorado PrePass Sites		
Location	Route	Operational
Cortez north and southbound	US160	Y
Dumont westbound	I-70	Y
Fort Collins north and southbound	I-25	Y
Fort Morgan east and westbound	I-76	Y
Lamar north and southbound	US287/50	Y
Limon east and westbound	I-70	Y
Loma east and westbound	I-70	Y
Monument north and southbound	I-25	Y
Trinidad northbound	I-25	Y
Wyoming PrePass Sites		
Location	Route	Operational
Cheyenne westbound	I-80	Y
Cheyenne northbound	I-25	Y
Evanston eastbound	I-80	Y
Laramie	I-25/I-80	5 – 6 years
Sheridan north and southbound	I-90	Spring 2001

Source: Heavy Vehicle Electronic License Plate, Inc. (HELP), [www.prepass.com](http://www.prepass.com)  
Wyoming Department of Transportation

## 5.6 STUDY RELEVENCE

Recognizing that the trucking industry plays an important role in the economic viability of the City of Fort Collins, balancing the needs of the trucking industry and the issues related to their activity within the City of Fort Collins and northern Larimer County was a key goal and objective of this study. A clear understanding of the operations and regulatory issues related to this study from the trucking industry perspective provided valuable insight. A clear definition of the regulatory agency responsibilities was also vital in developing the non-route based strategies, assuring their feasibility, and evaluating potential impacts and issues.