Summary of National Trends

1990 to 2000

Truck Weight Study (TWS) Data

Using

Vehicle Travel Information System (VTRIS)

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VTRIS

Vehicle Travel Information System

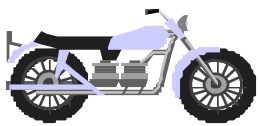
- Windows-based System
  - FoxPro data base (DBF)
- Data Base Management System
  - Load/Validate
  - Generate summary file
  - Produce W-Tables
  - Archive and ship data

W-Tables

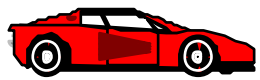
- W1 - Weigh Station Characteristics
- W2 - Comparison of Weighed vs. Counted
- W3 - Average Empty, Loaded, and Cargo Weights
- W4 - Equivalency Factors
- W5 - Gross Vehicle Weights
- W6 - Overweight Vehicle Report
- W7 - Distribution of Overweight Vehicles

FHWA VEHICLE CLASSIFICATIONS

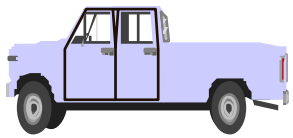
1 Motorcycles



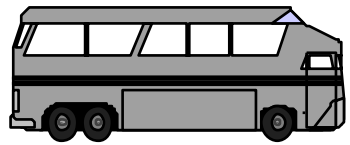
2 Passenger Cars



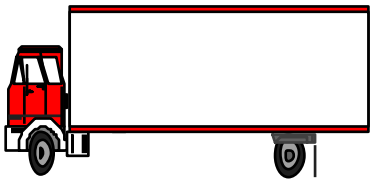
3 Two Axle, 4 Tire Single Units



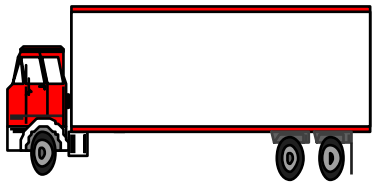
4 Buses



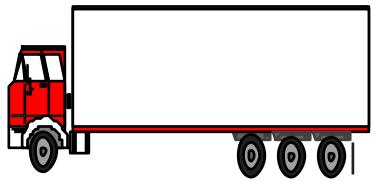
5 Two Axle, 6 Tire Single Units



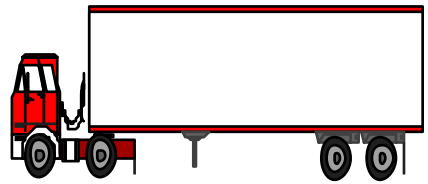
6 Three Axle Single Units



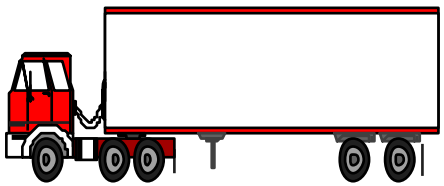
7 Four or More Axle Single Units



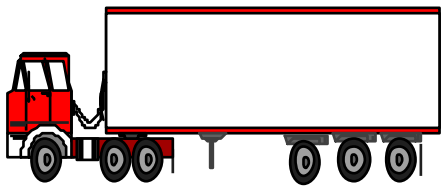
8 Four or Less Axle Single Trailers



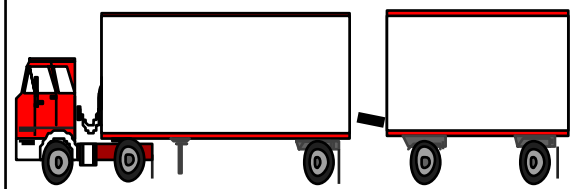
9 Five Axle Single Trailers



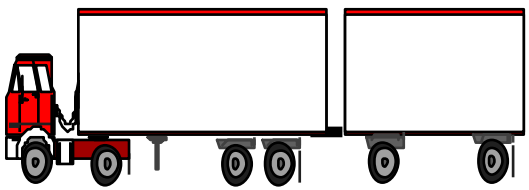
10 Six or More Axle Single Trailers



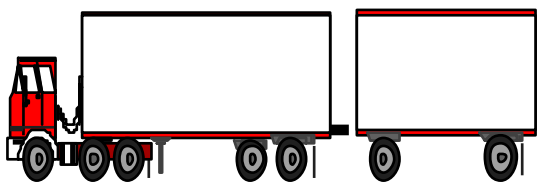
11 Five or Less Axle Multi-Trailers



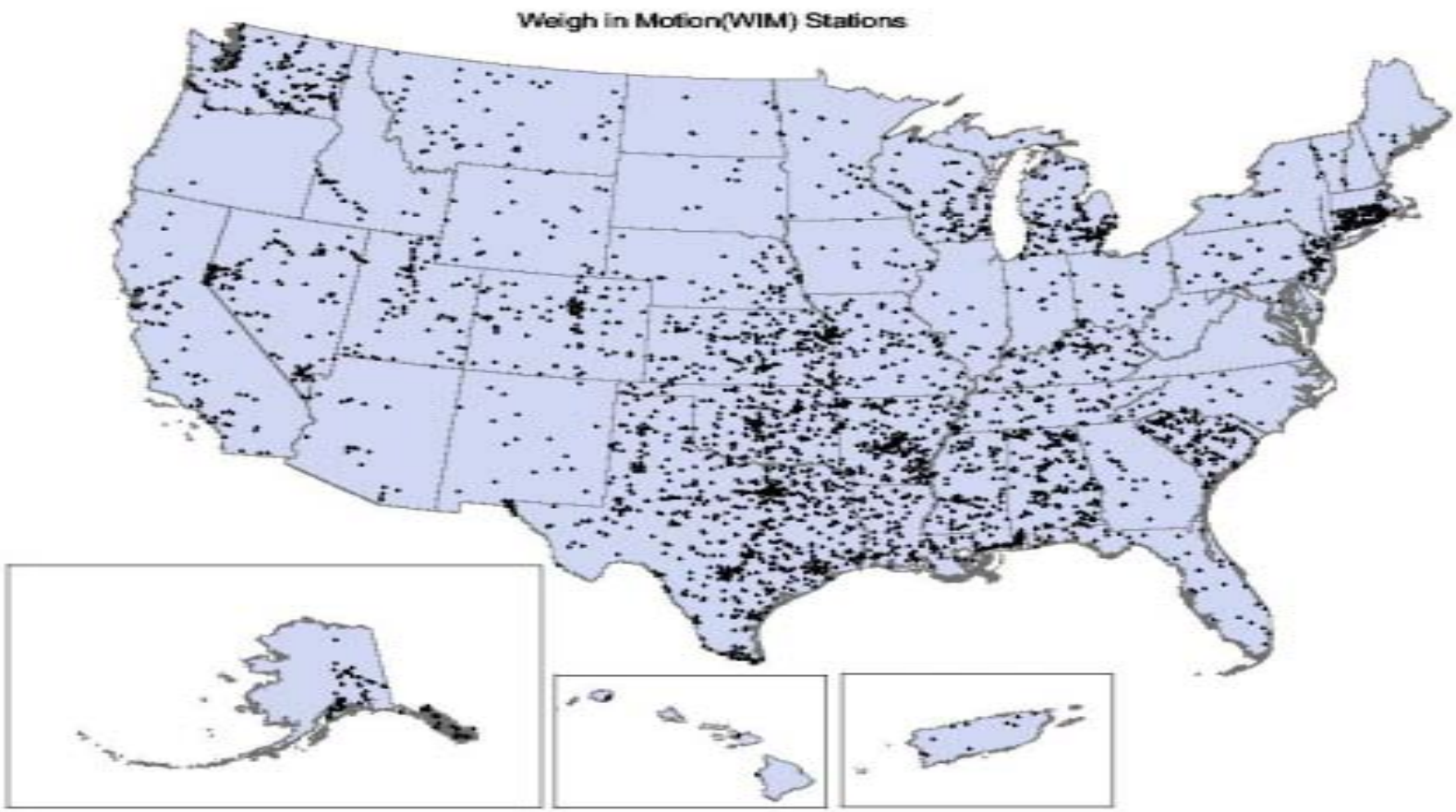
12 Six Axle Multi-Trailers



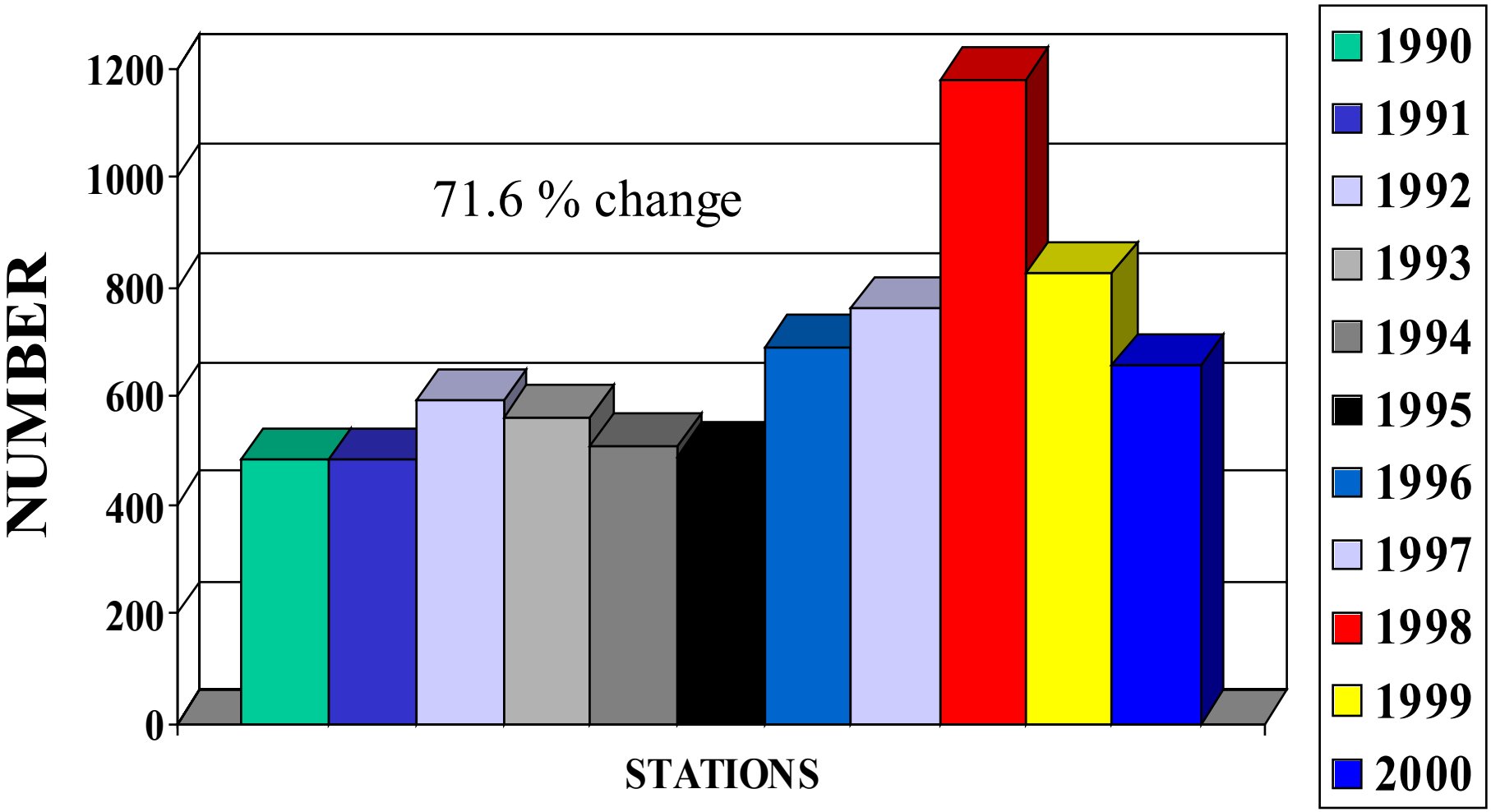
13 Seven or More Axle Multi-Trailers



TWS Station Used



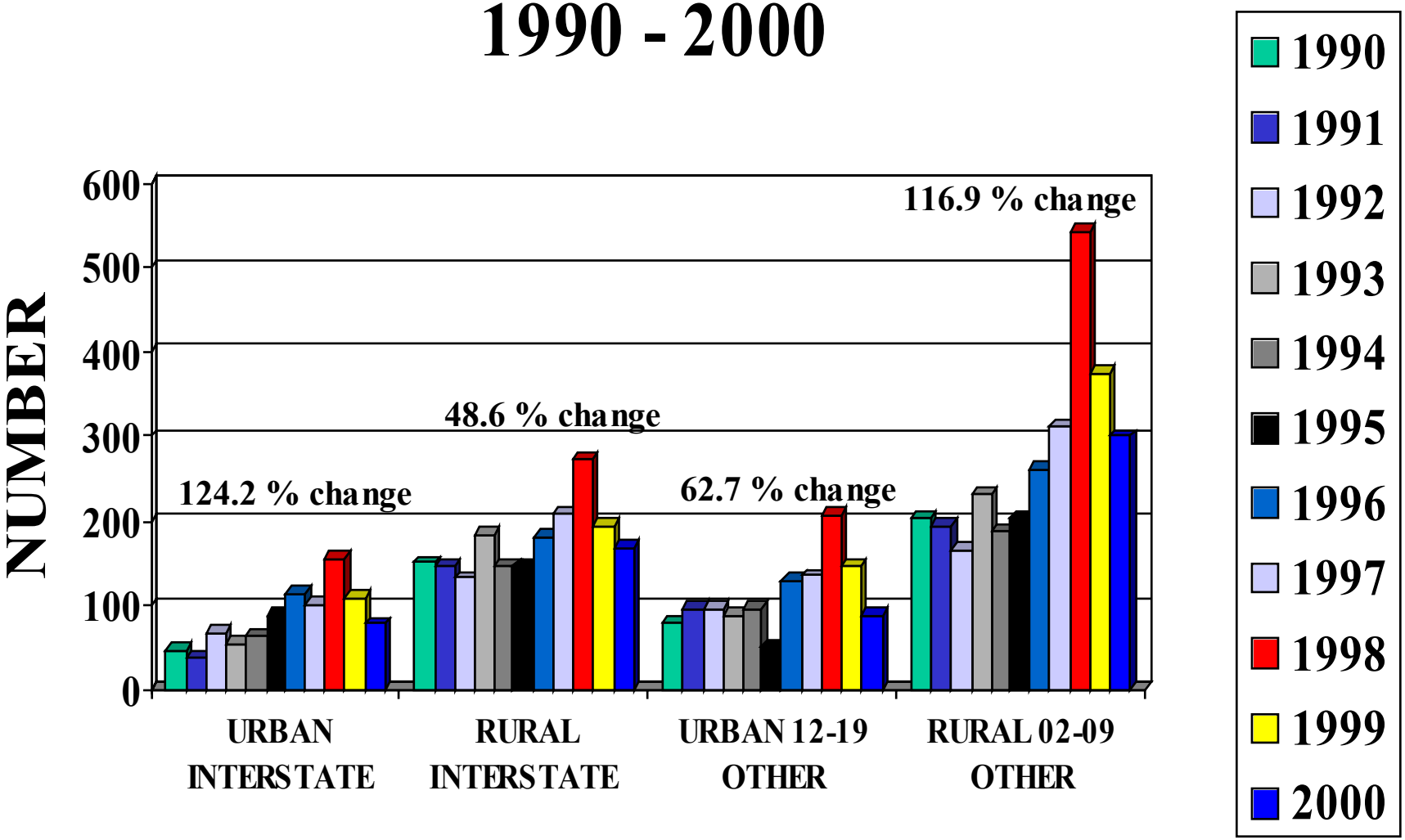
TOTAL WIM STATIONS
1990 - 2000

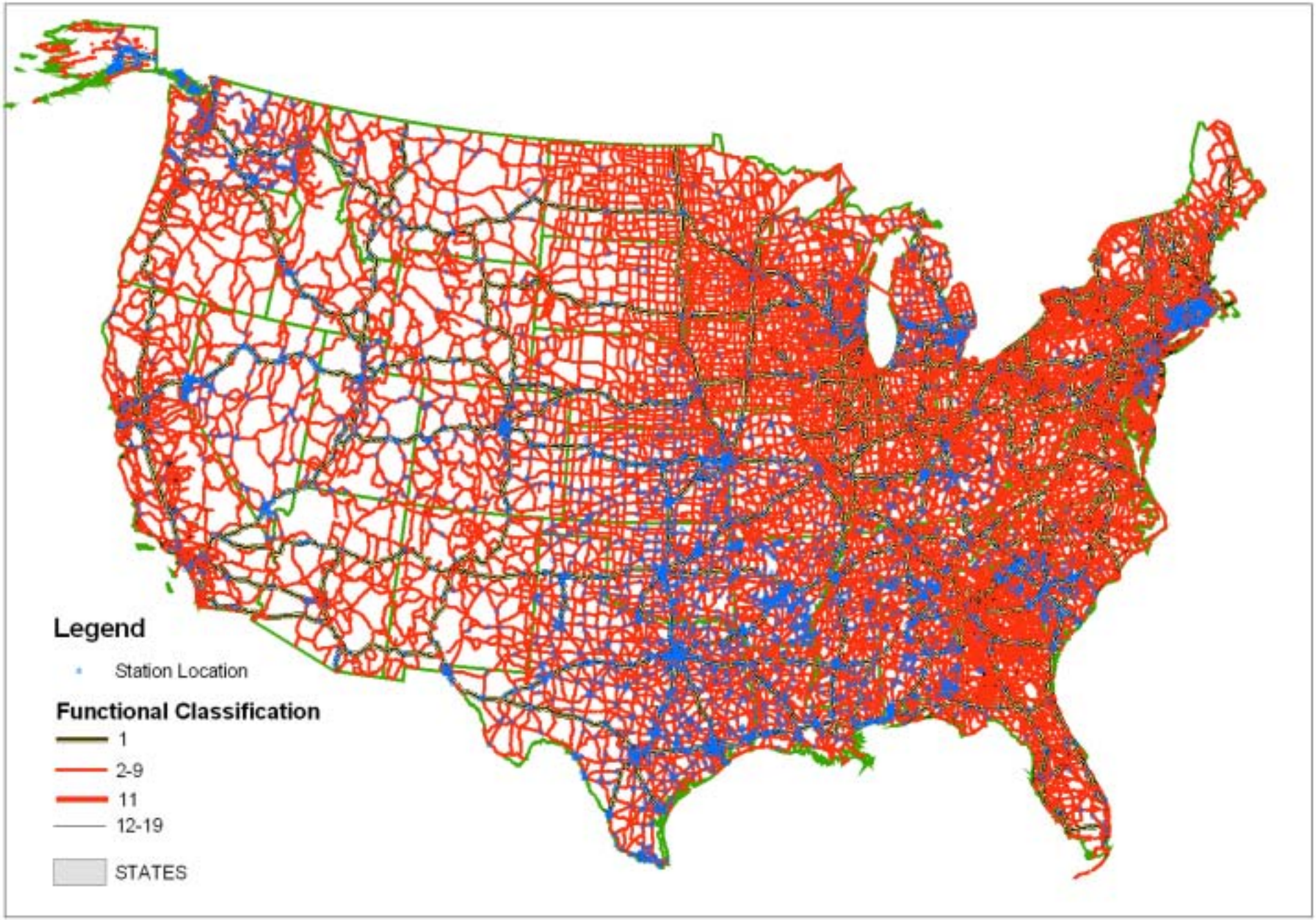


TOTAL WIM STATIONS

by Functional Class

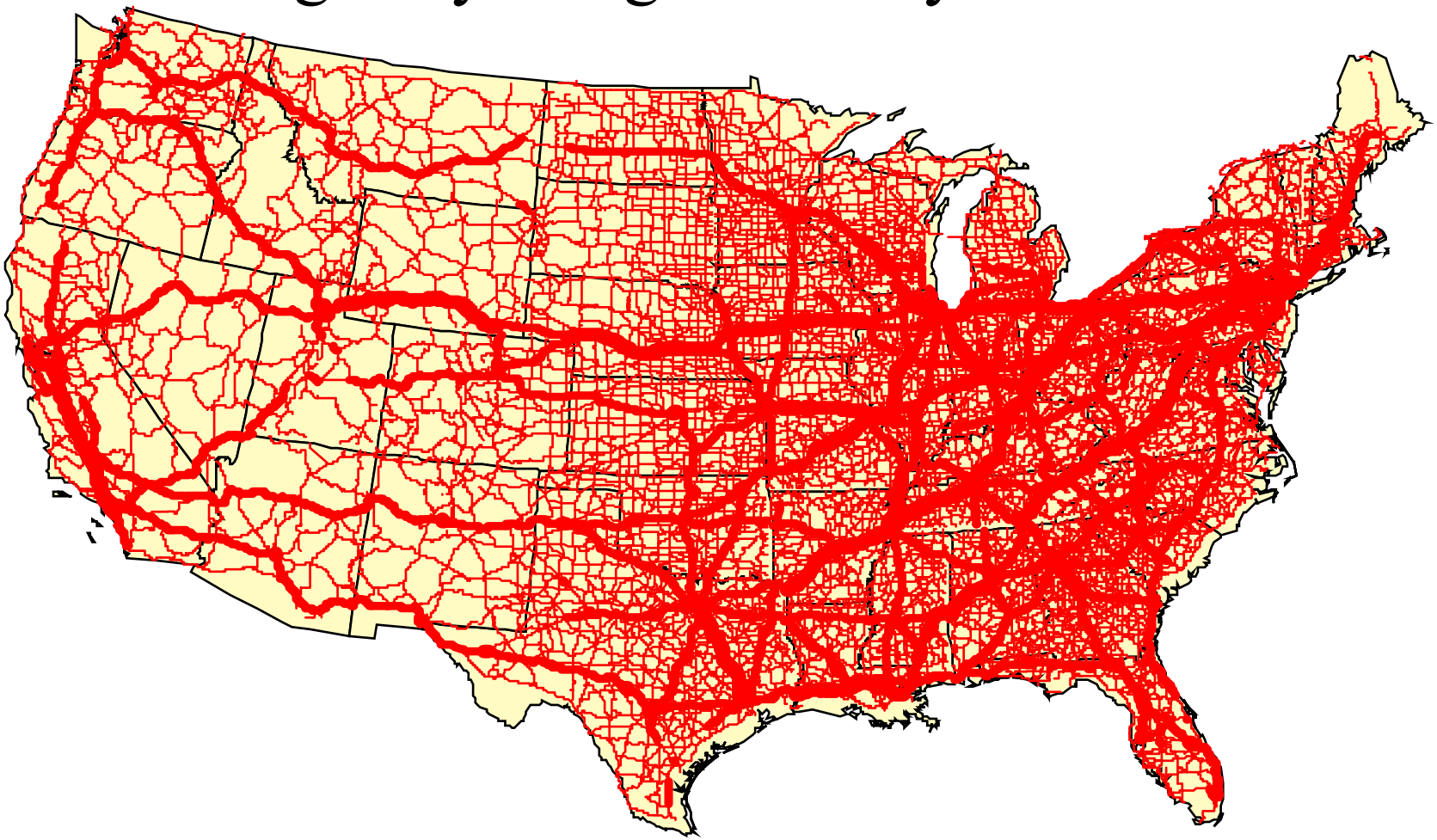
1990 - 2000



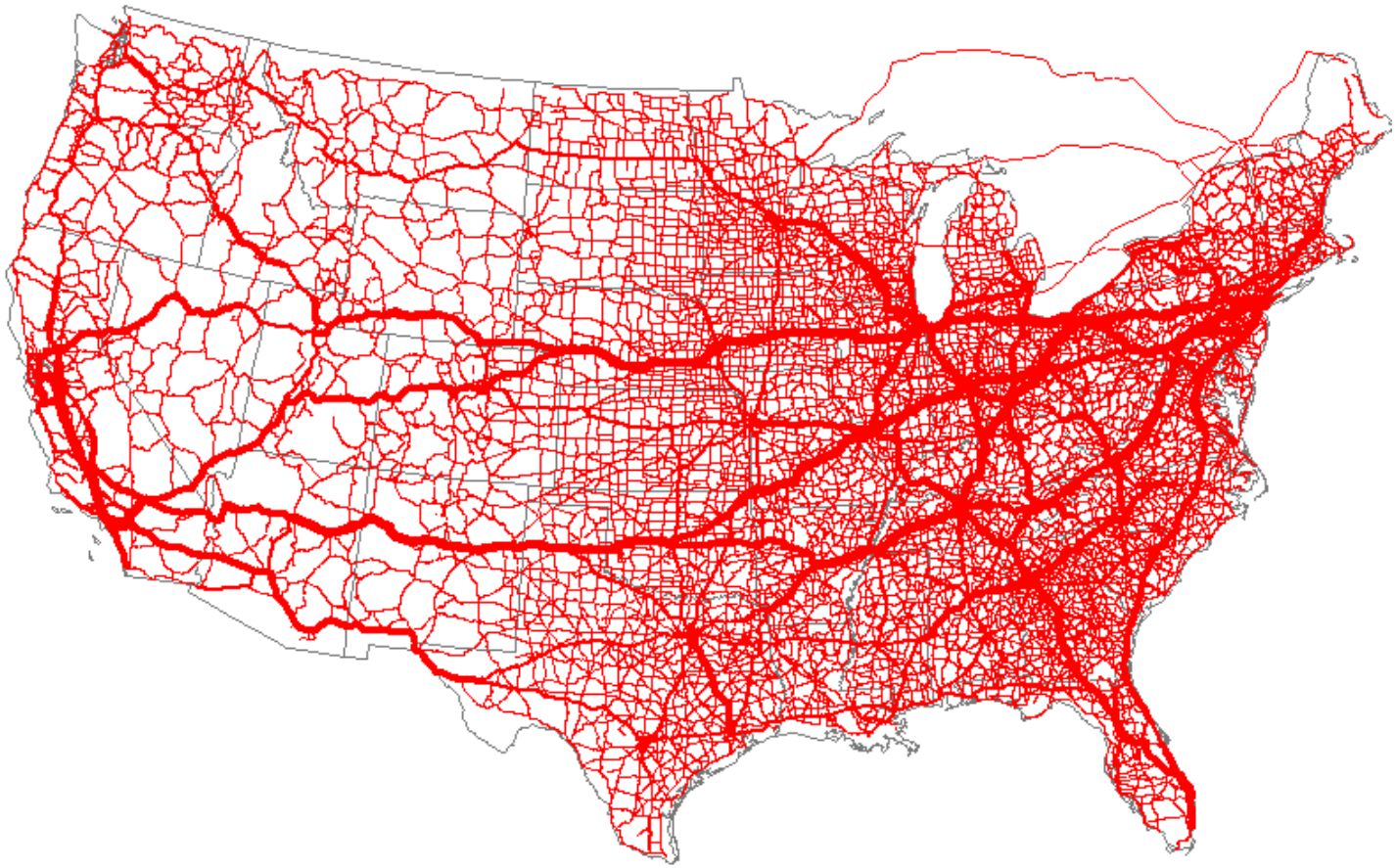

Legend
Station Location
Functional Classification
1
2-9
11
12-19
STATES

Domestic Truck Freight Flows, All Commodities

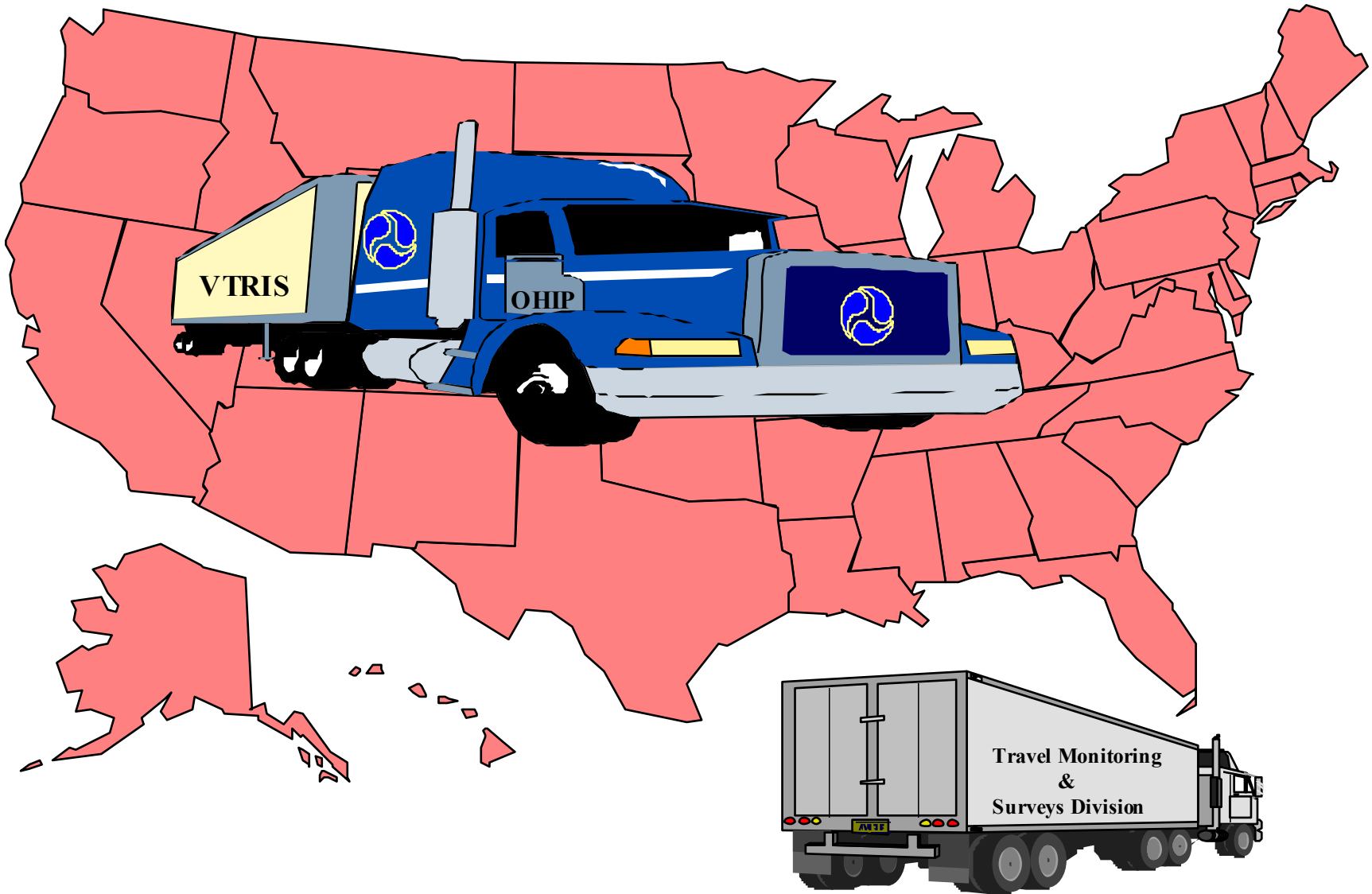
Highway Freight Density in Tons



Truck Freight Flows, High-Service Commodities High-value and time-sensitive products, highway freight density in tons

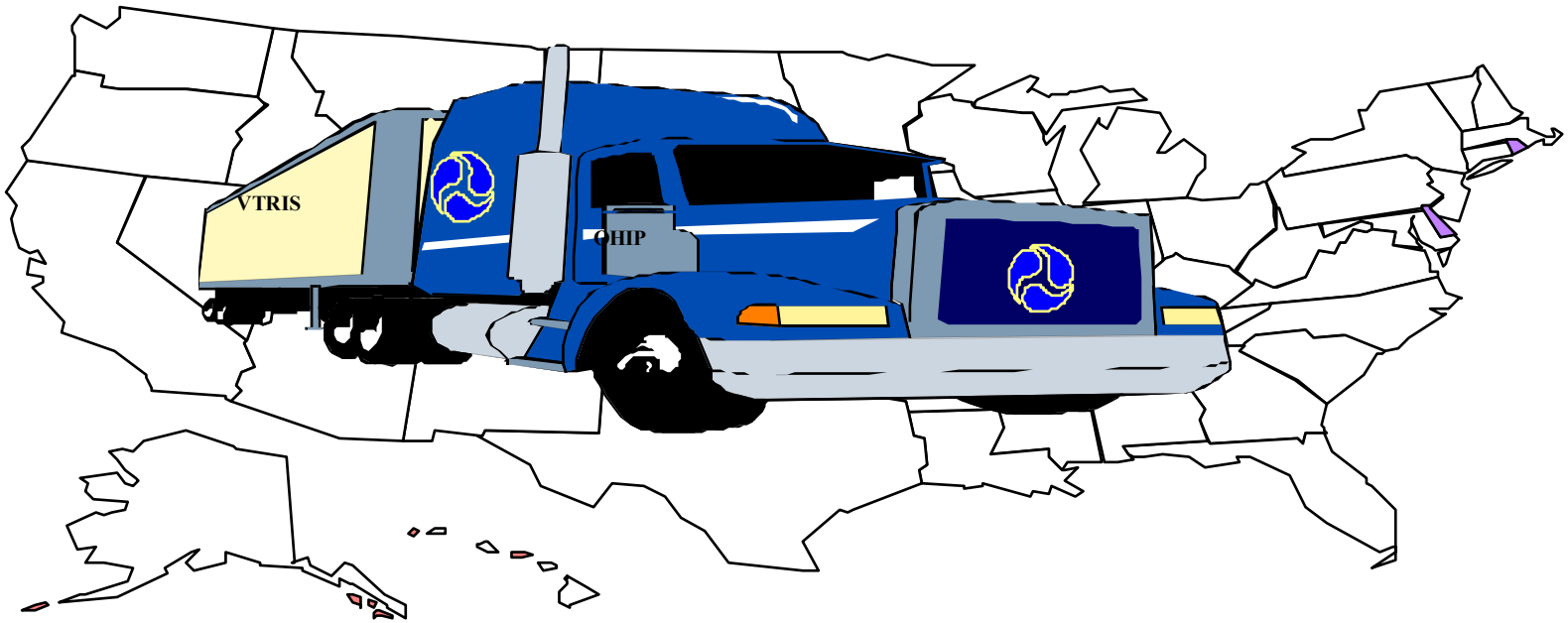


National Trend 1990 – 2000
VTRIS W-4 Report



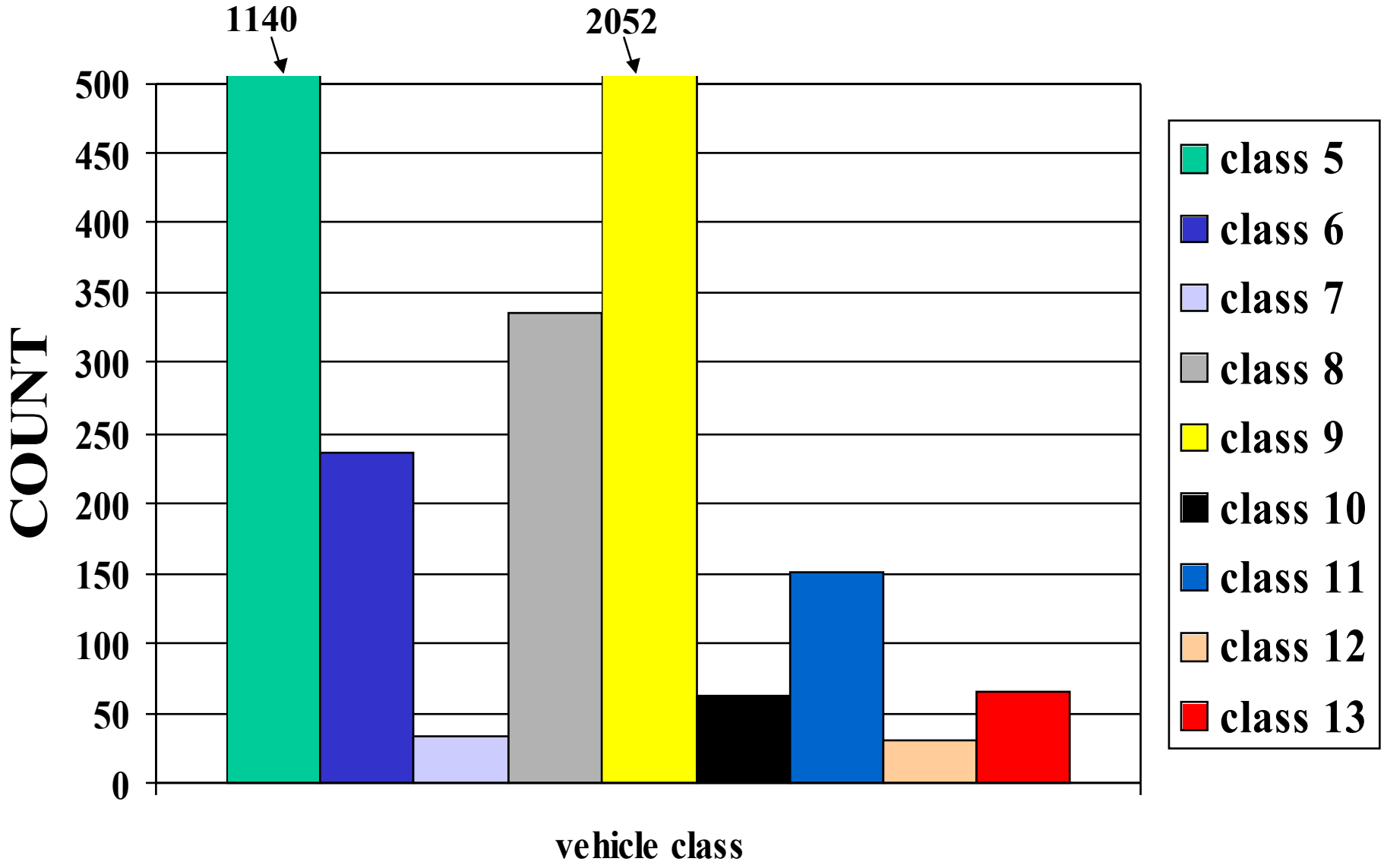
National Trend Average Daily Truck Traffic

1990 to 2000

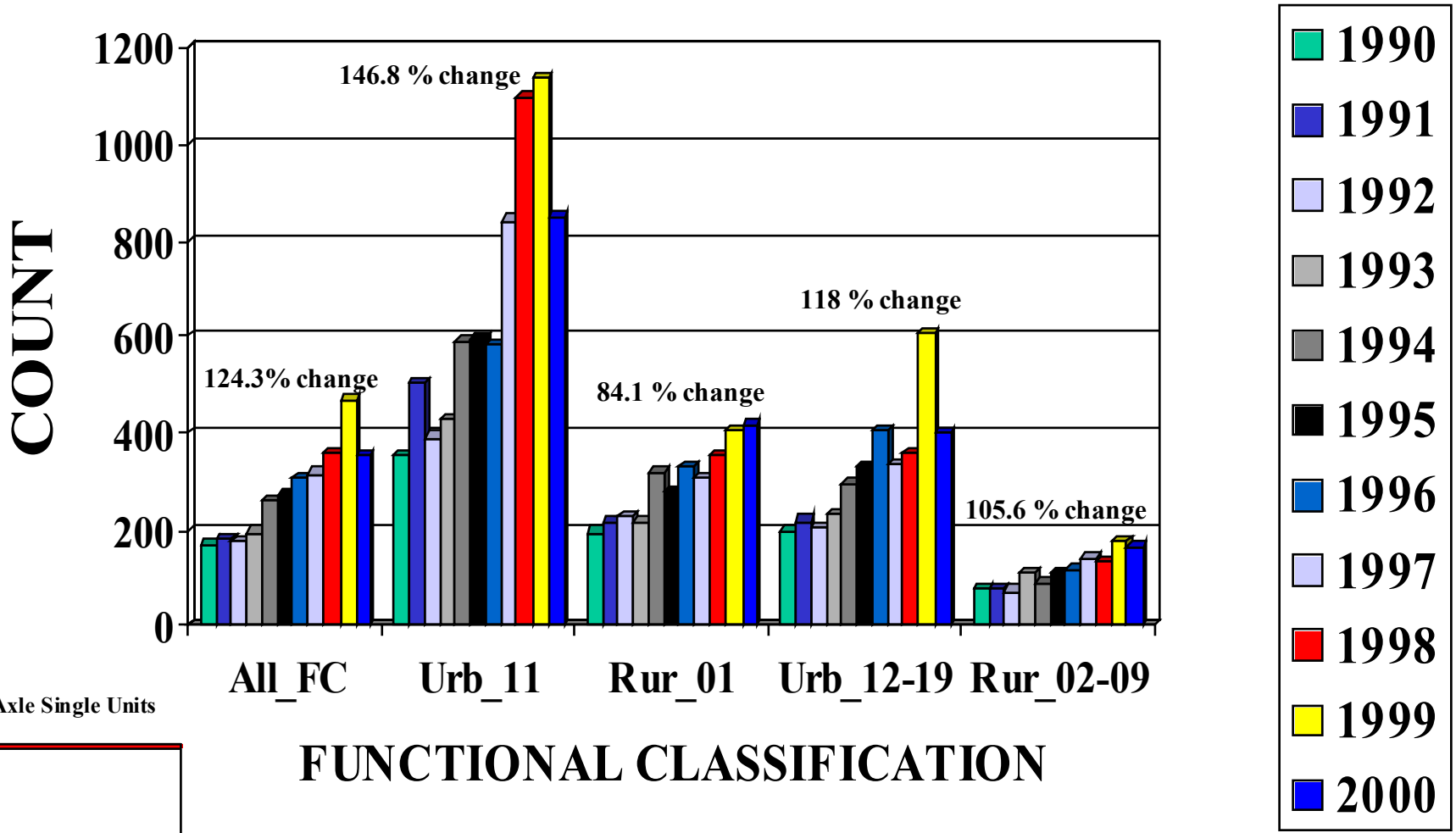


SOURCE: VTRIS Truck Weight Study Data

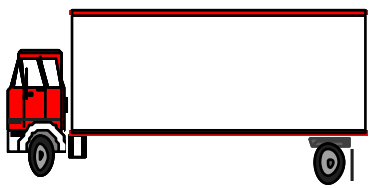
Variation of ADT Between Vehicle Type



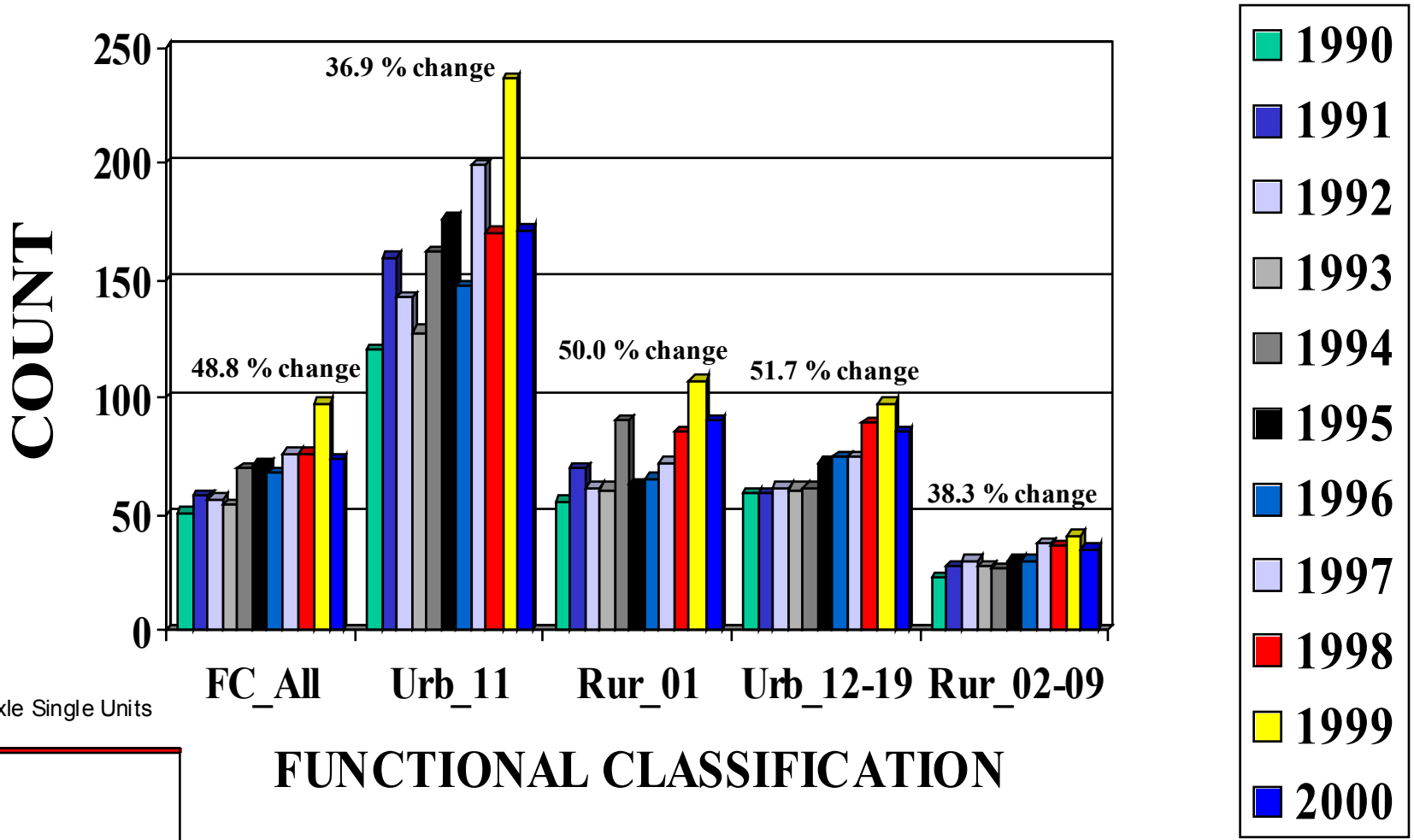
NATIONAL TREND ADT
TRUCKS CLASS 5



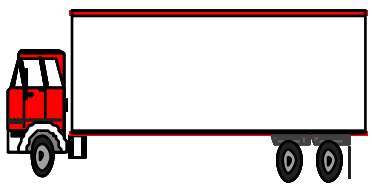
5 Two Axle Single Units



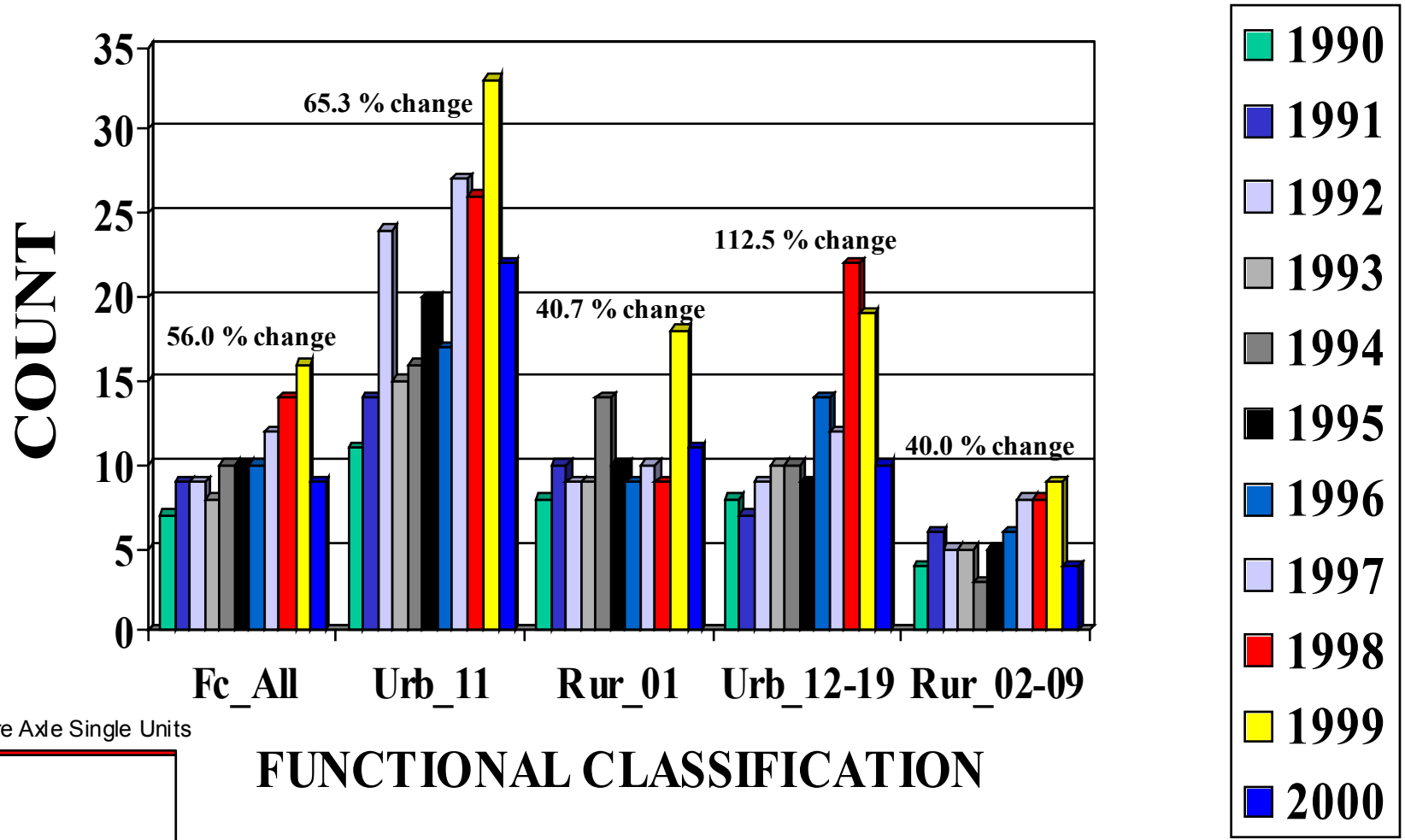
NATIONAL TREND ADT
TRUCKS CLASS 6



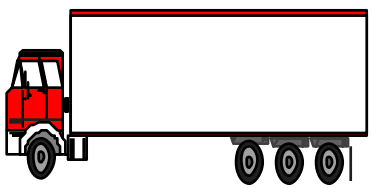
6 Three Axle Single Units



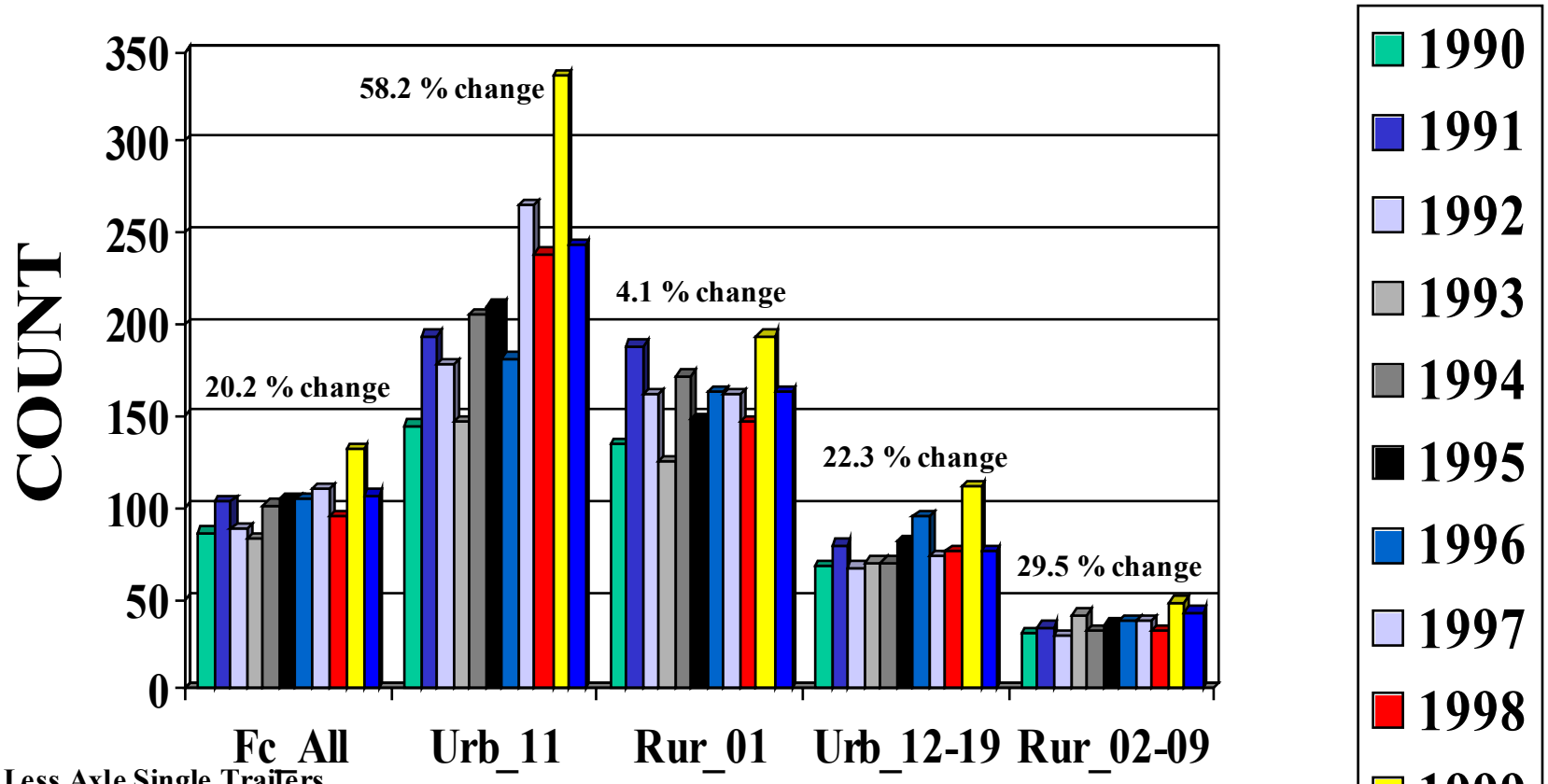
NATIONAL TREND ADT
TRUCKS CLASS 7



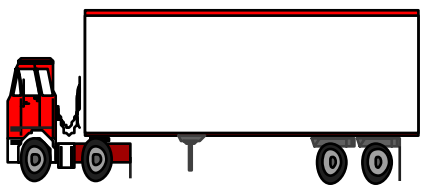
7 Four or More Axle Single Units



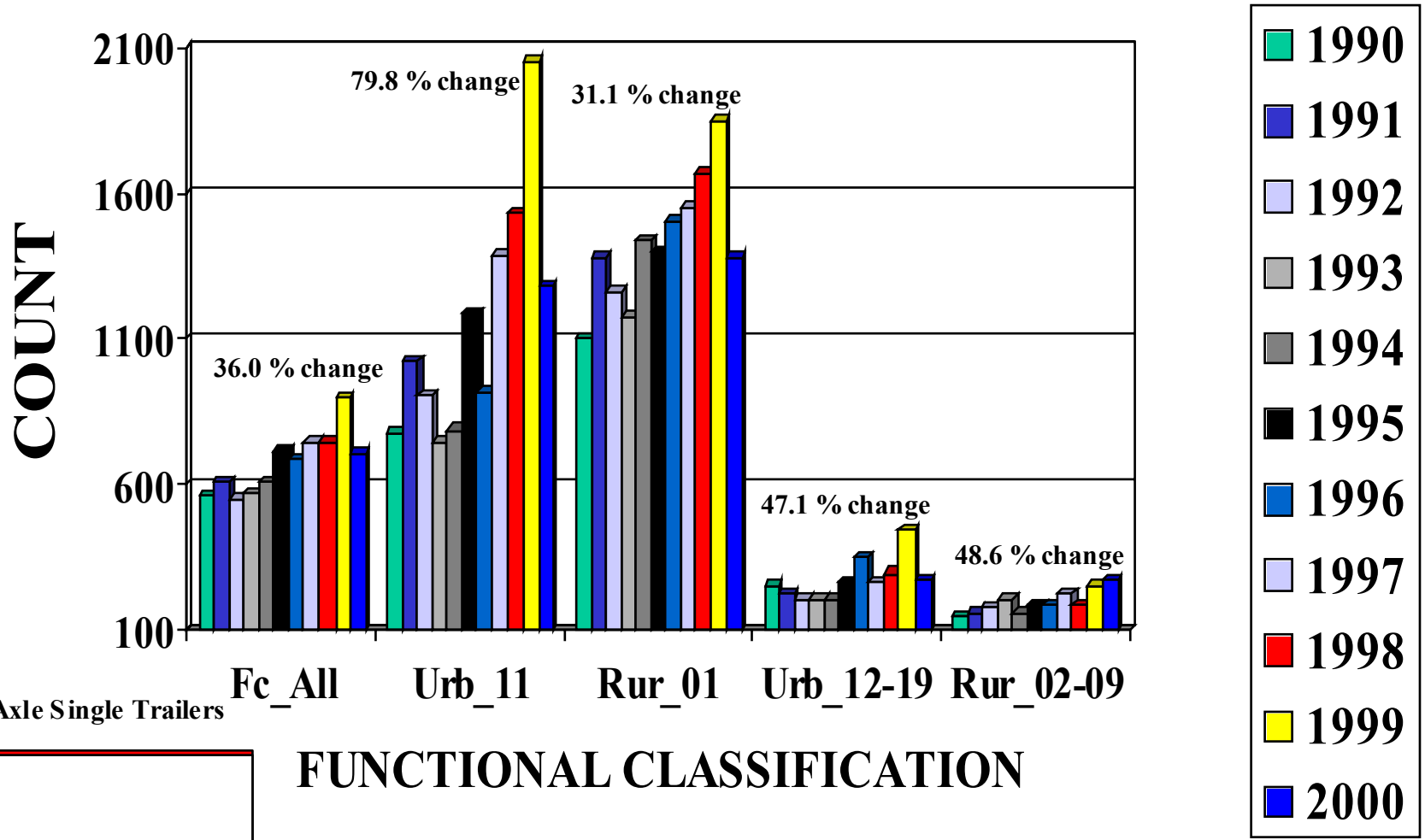
NATIONAL TREND ADT
TRUCKS CLASS 8



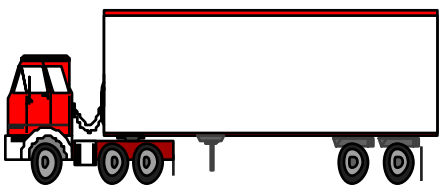
8 Four or Less Axle Single Trailers



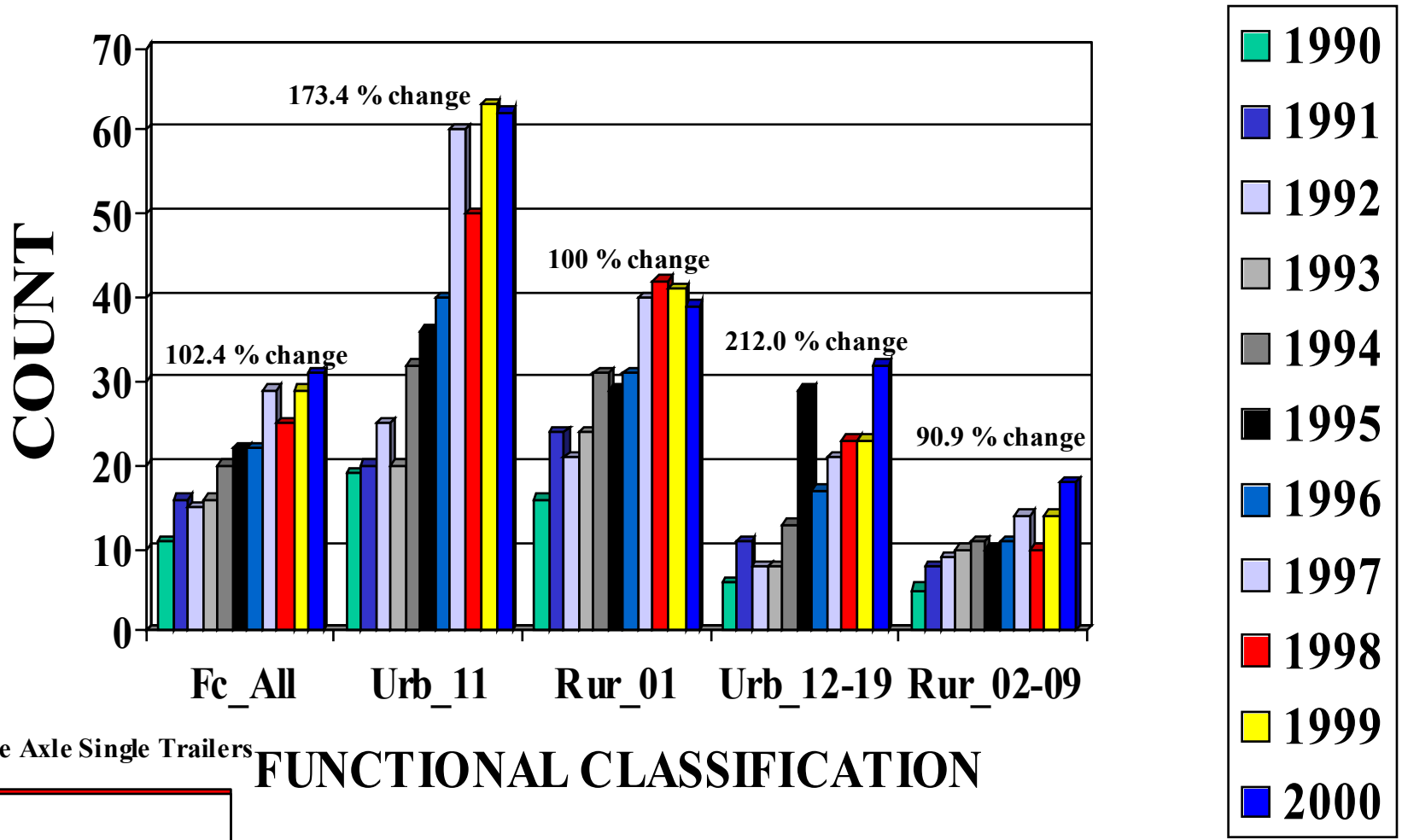
NATIONAL TREND ADT
TRUCKS CLASS 9



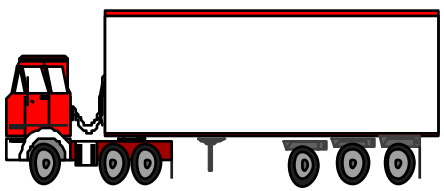
9 Five Axle Single Trailers



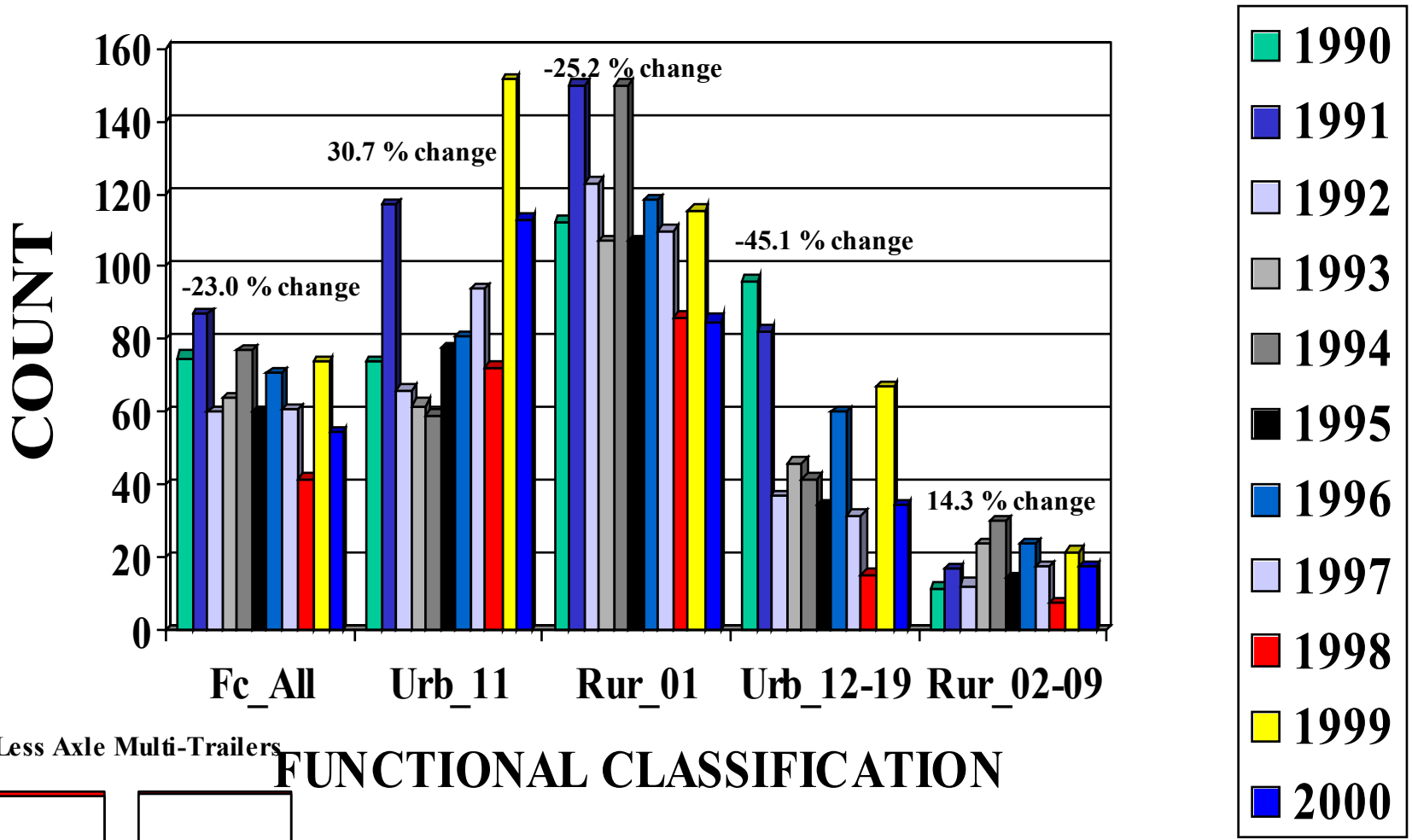
NATIONAL TREND ADT
TRUCKS CLASS 10



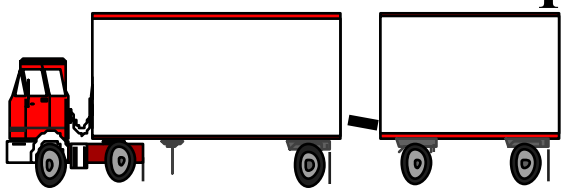
10 Six or More Axle Single Trailers



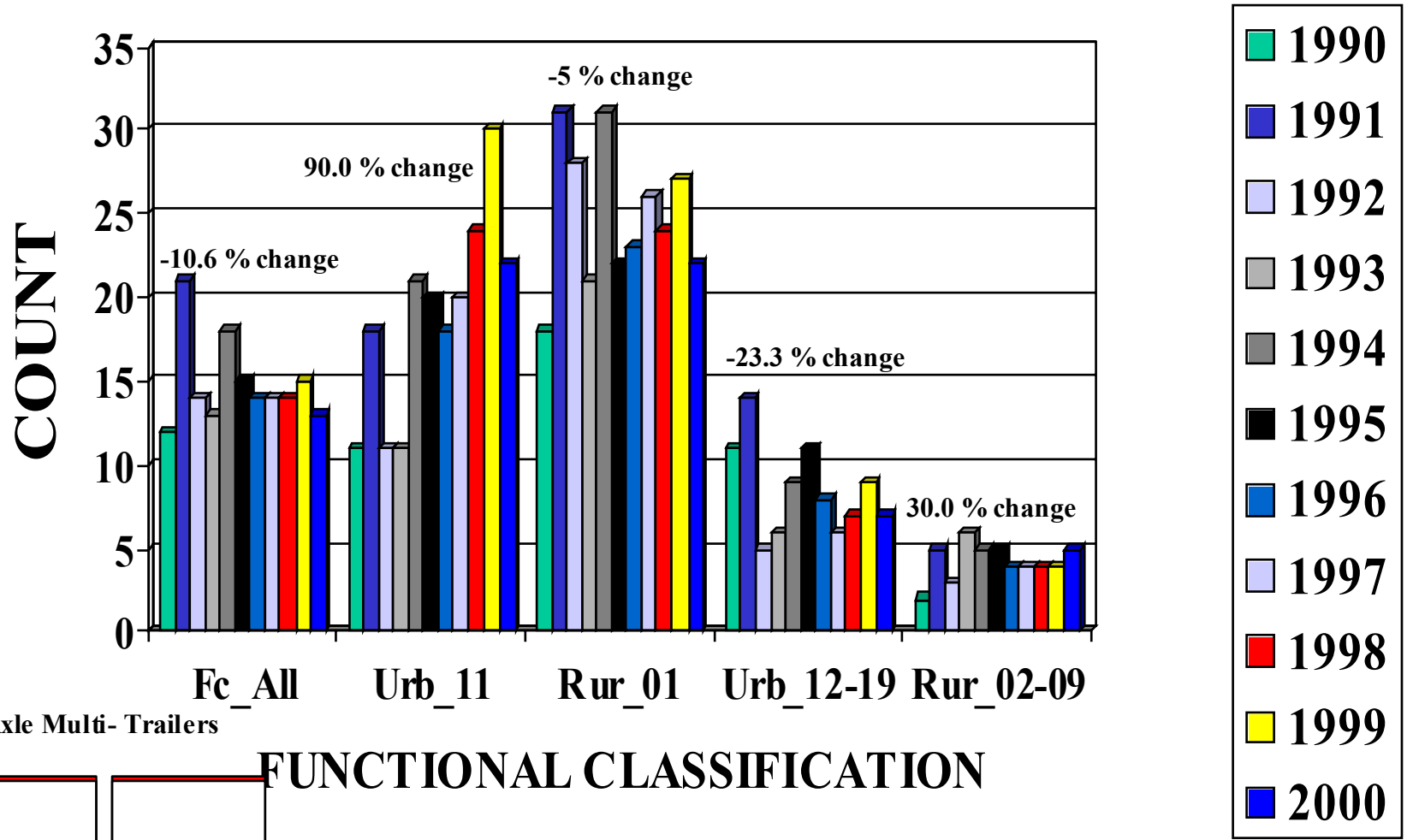
NATIONAL TREND ADT
TRUCKS CLASS 11



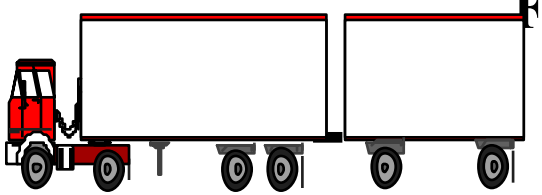
11 Five or Less Axle Multi-Trailers



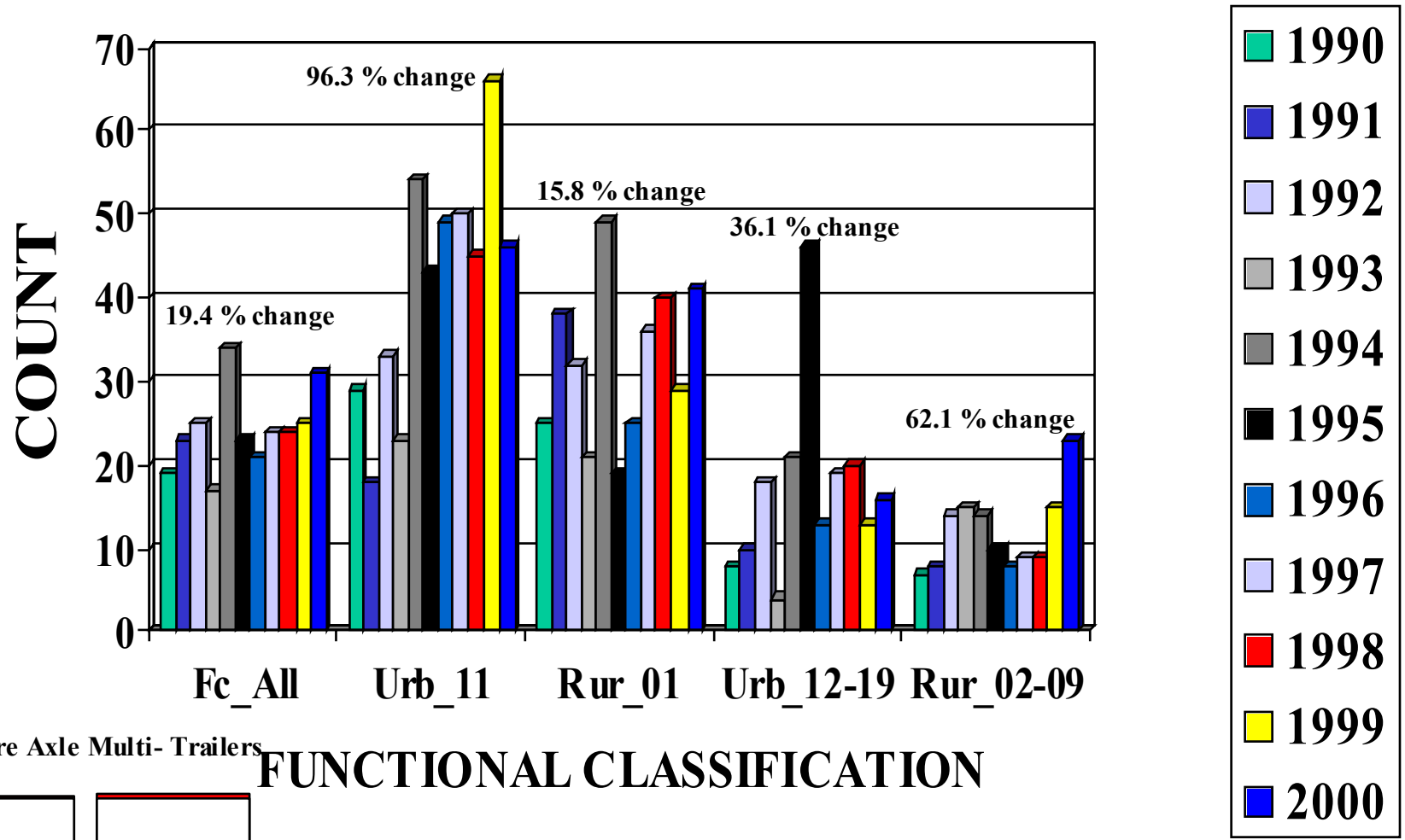
NATIONAL TREND ADT
TRUCKS CLASS 12



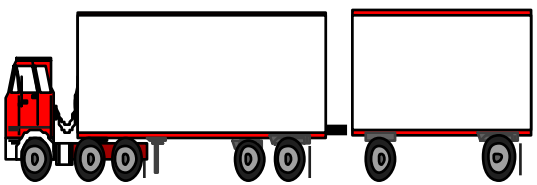
12 Six Axle Multi- Trailers



NATIONAL TREND ADT
TRUCKS CLASS 13

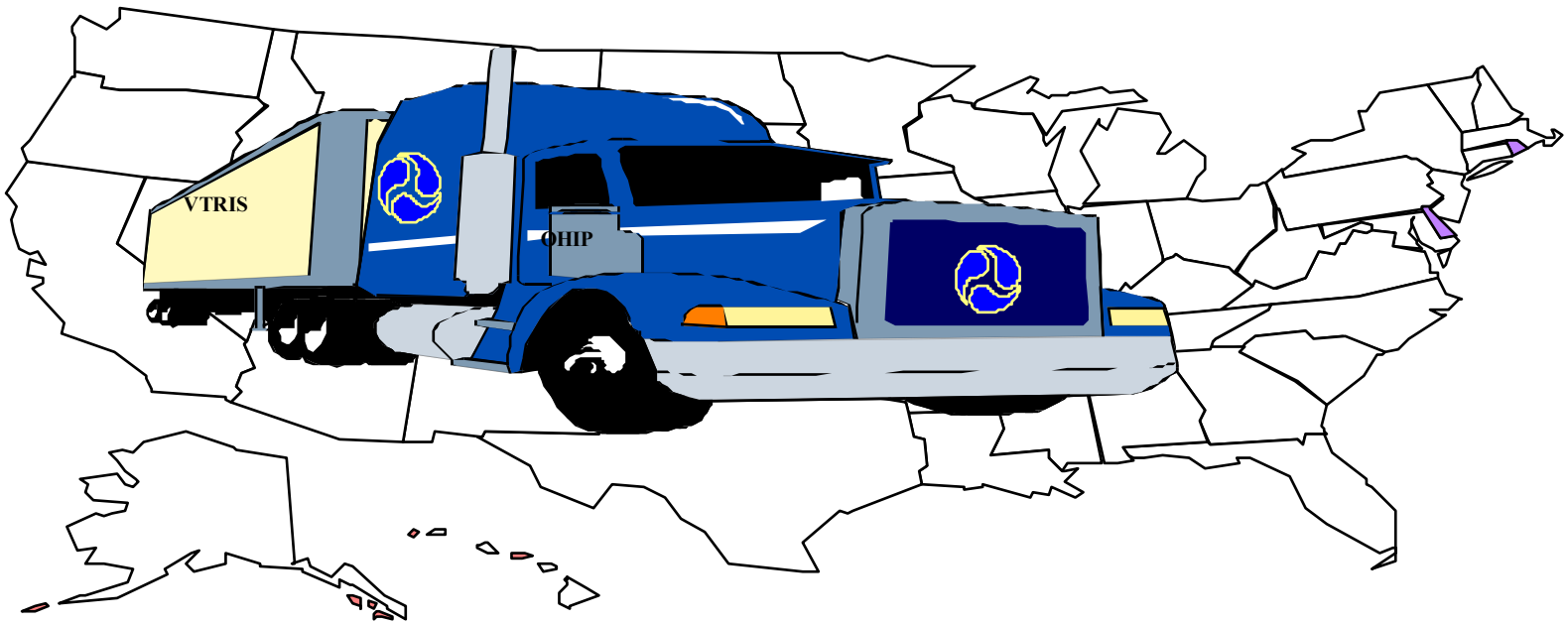


13 Seven or More Axle Multi- Trailers

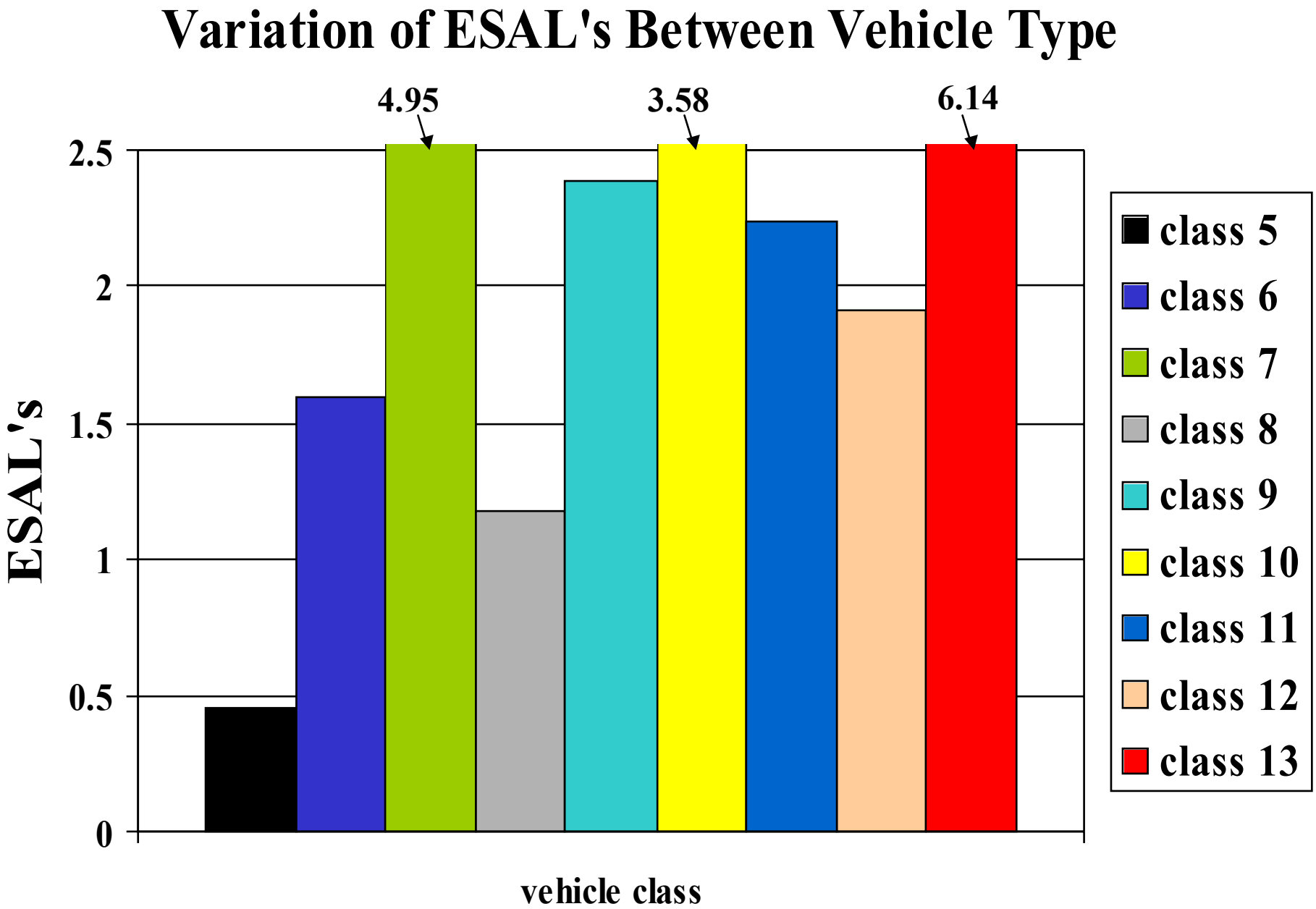


National Trend Average ESALs

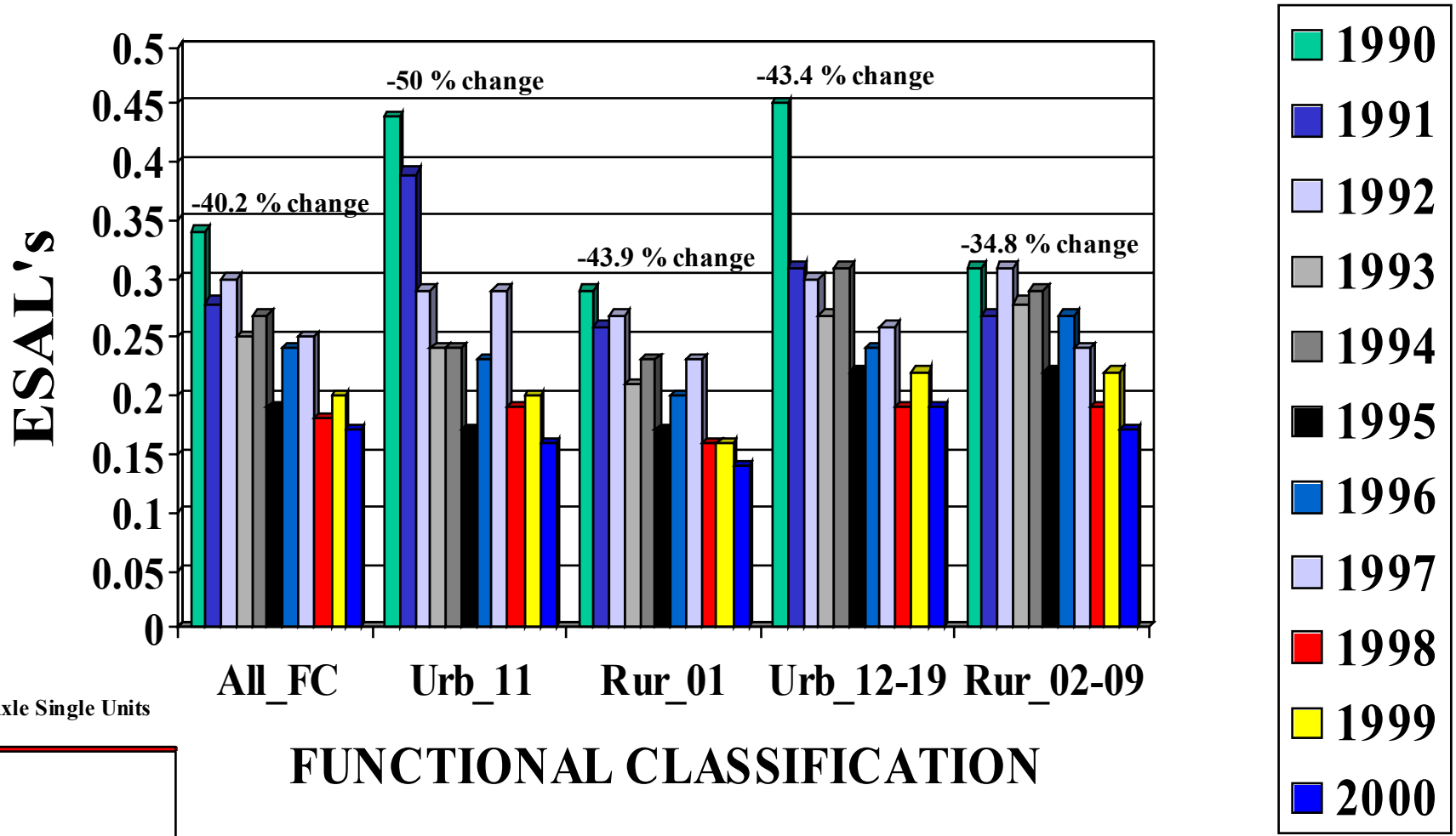
1990 to 2000



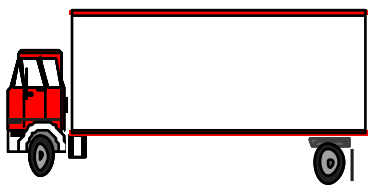
SOURCE: VTRIS Truck Weight Study Data


Variation of ESAL's Between Vehicle Type
4.95
3.58
6.14
2.5
2
1.5
1
0.5
0
ESAL's
vehicle class
class 5
class 6
class 7
class 8
class 9
class 10
class 11
class 12
class 13

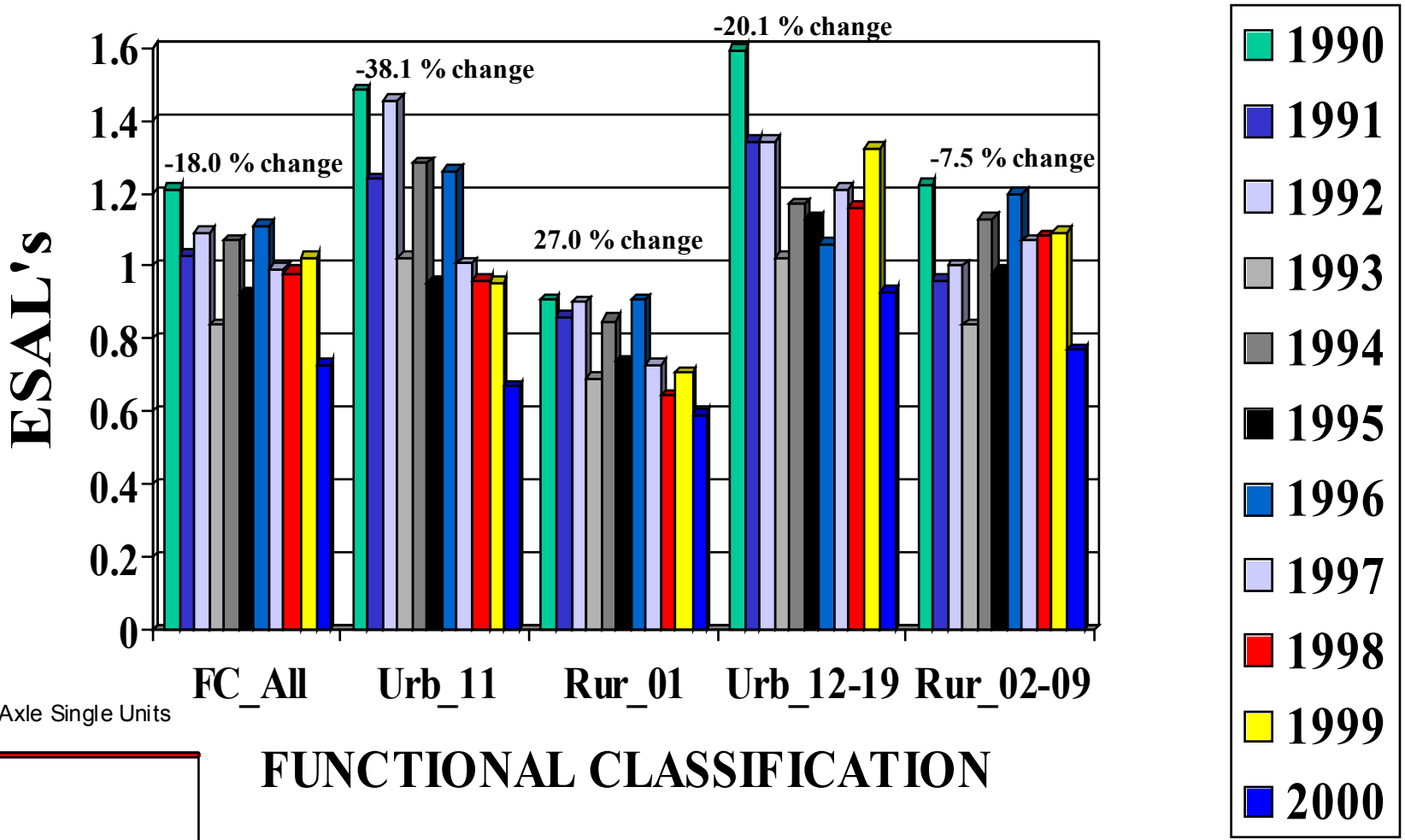
NATIONAL TREND ESAL's
TRUCKS CLASS 5



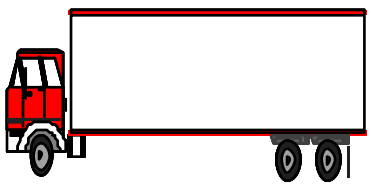
5 Two Axle Single Units



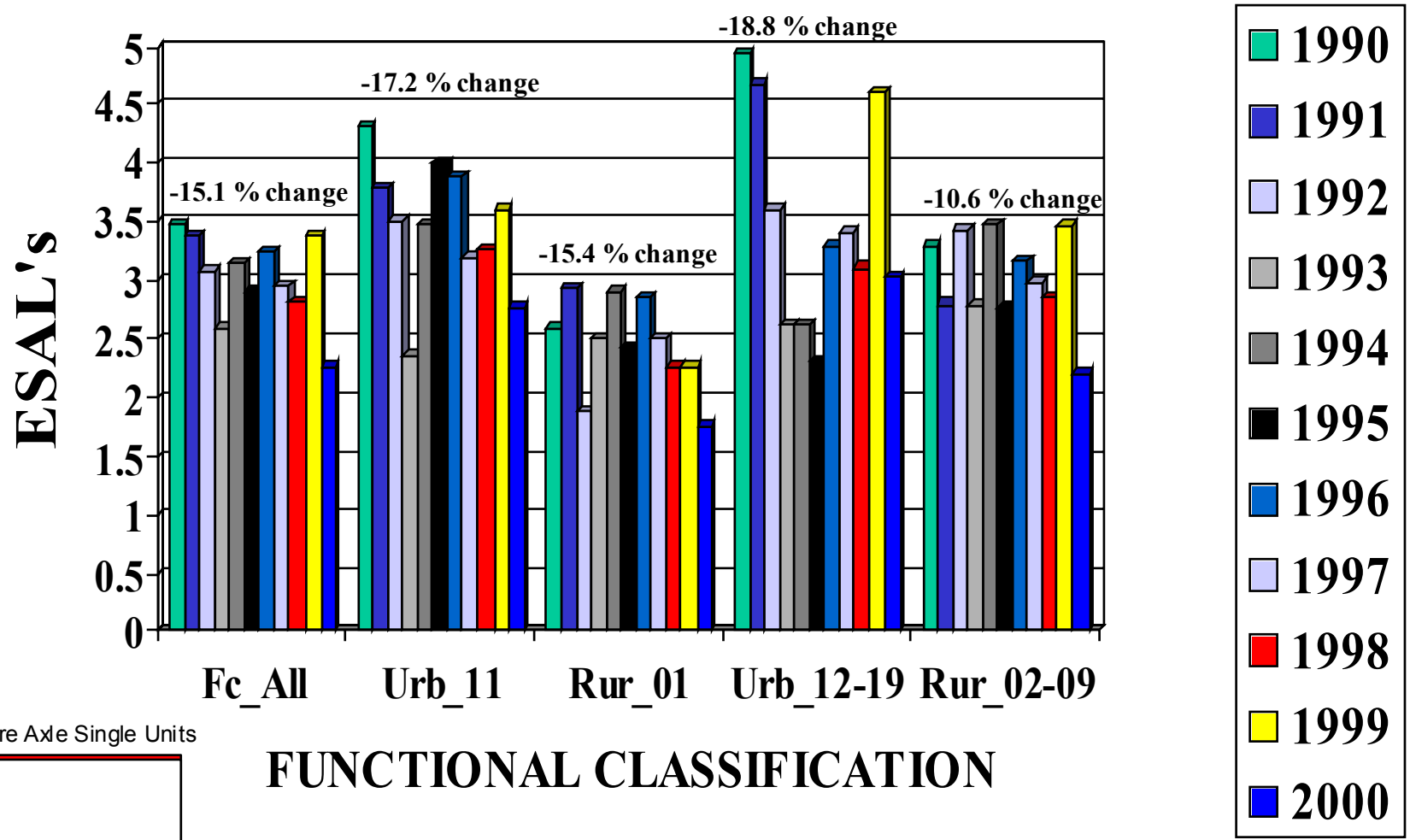
NATIONAL TREND ESAL's
TRUCKS CLASS 6



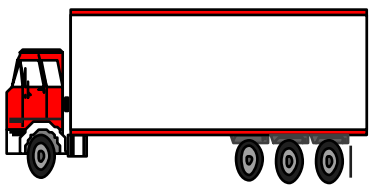
6 Three Axle Single Units



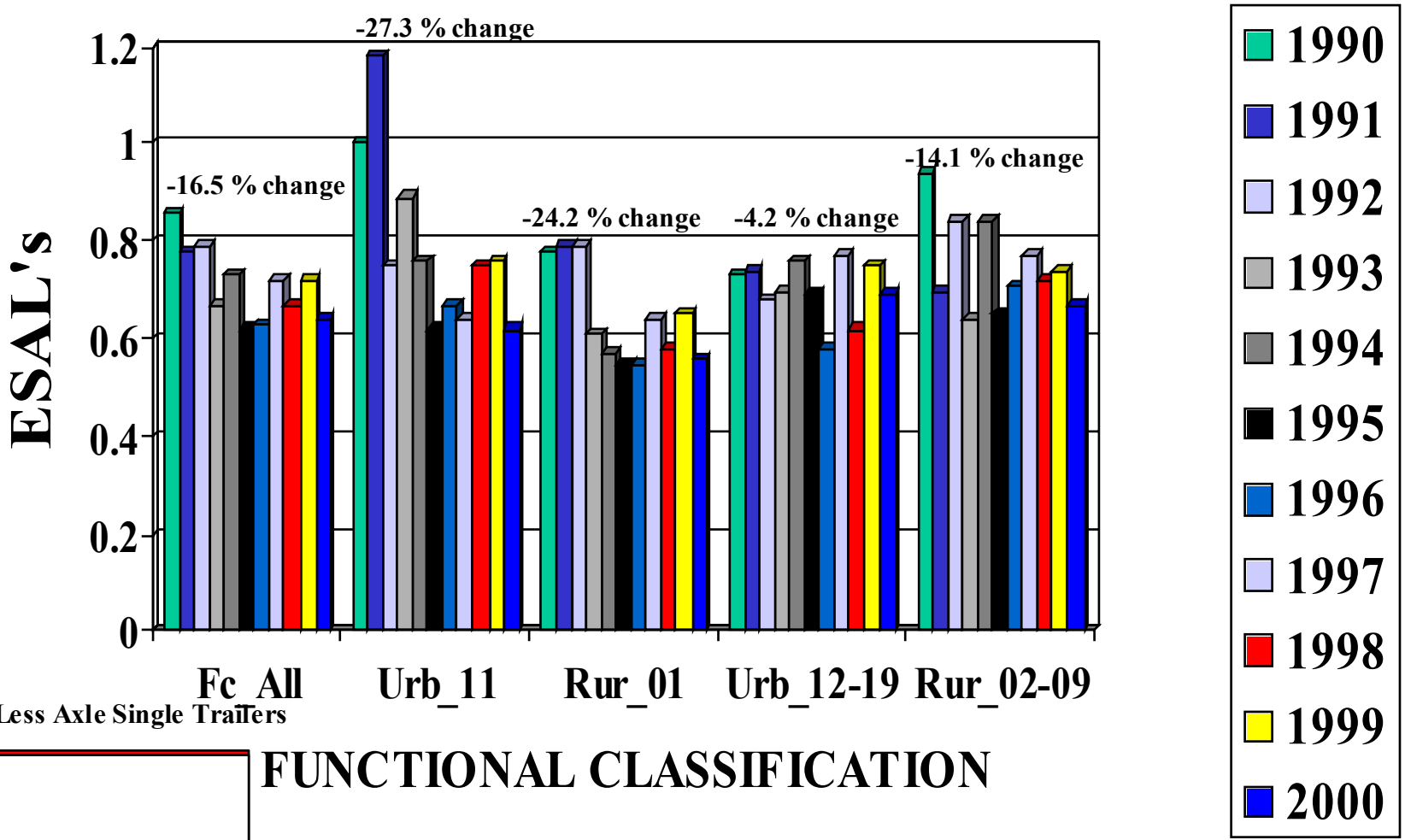
NATIONAL TREND ESAL's
TRUCKS CLASS 7



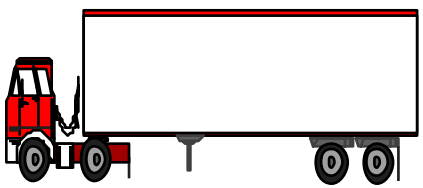
7 Four or More Axle Single Units



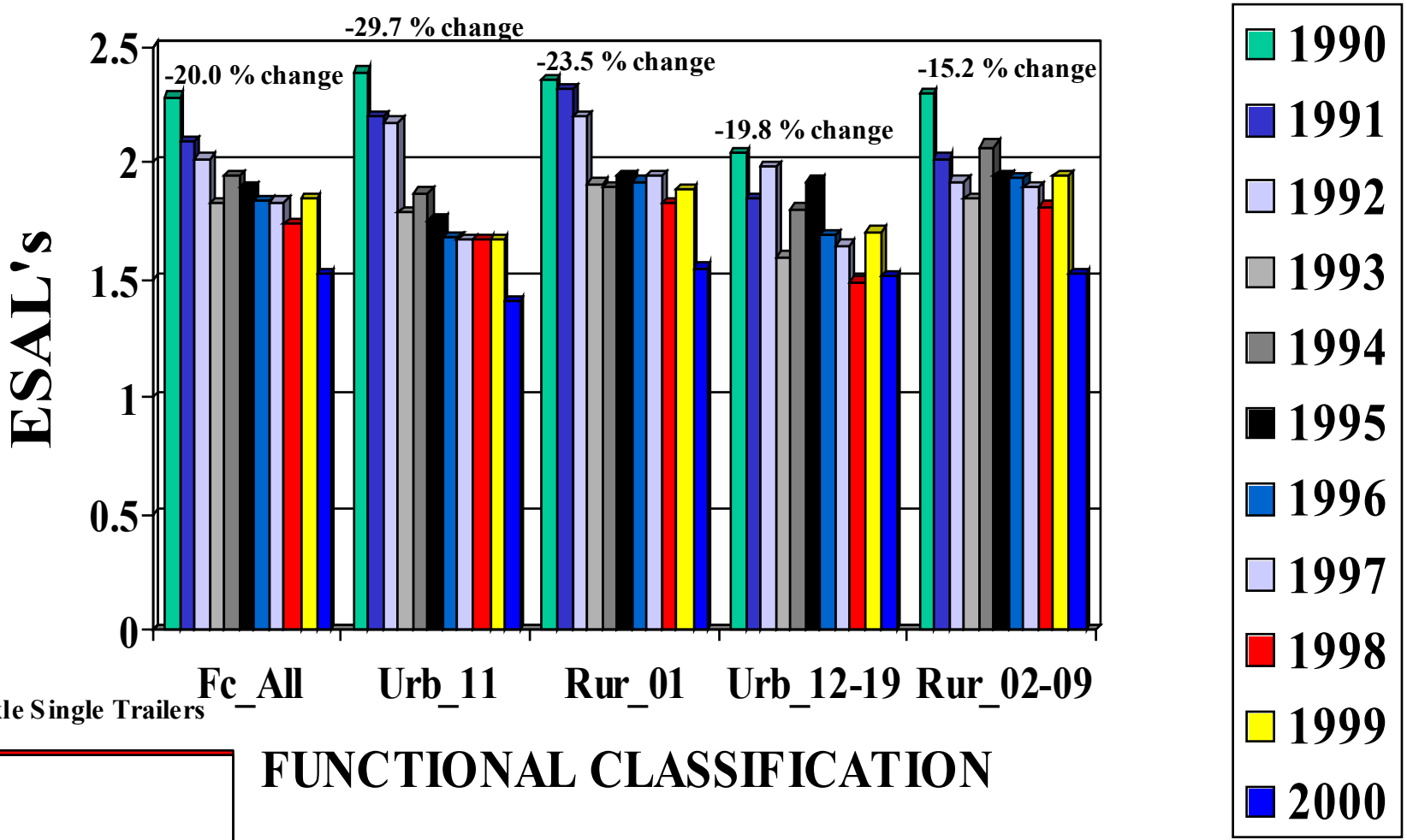
NATIONAL TREND ESAL's
TRUCKS CLASS 8



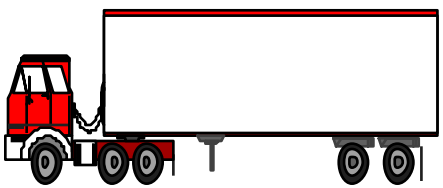
8 Four or Less Axle Single Trailers



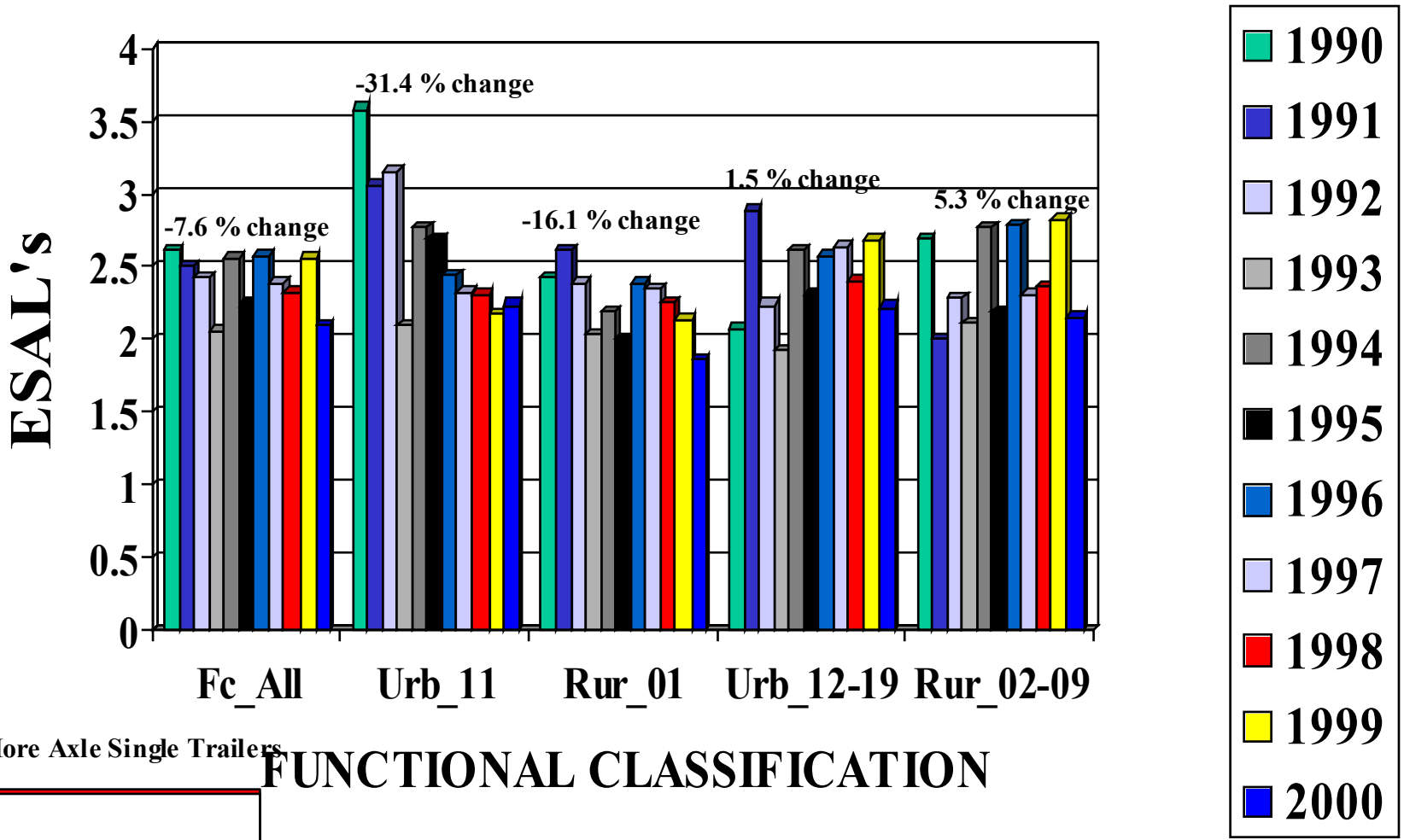
NATIONAL TREND ESAL's
TRUCKS CLASS 9



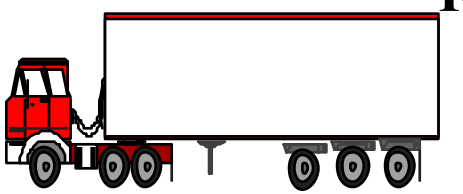
9 Five Axle Single Trailers



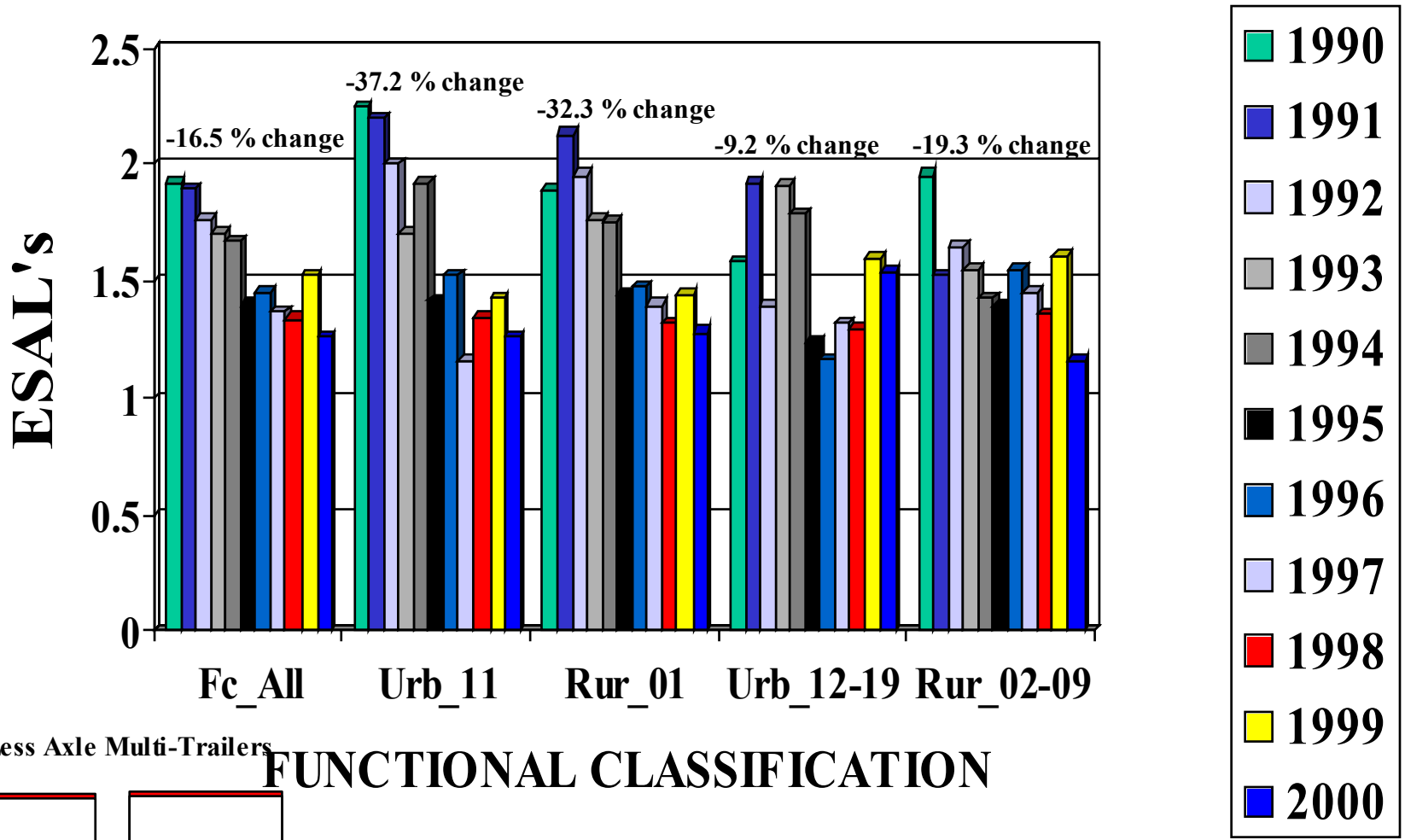
NATIONAL TREND ESAL's
TRUCKS CLASS 10



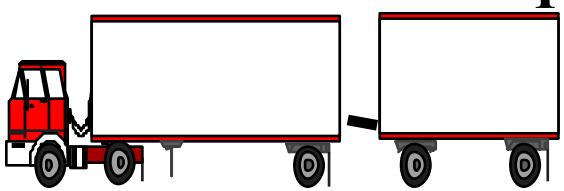
10 Six or More Axle Single Trailers



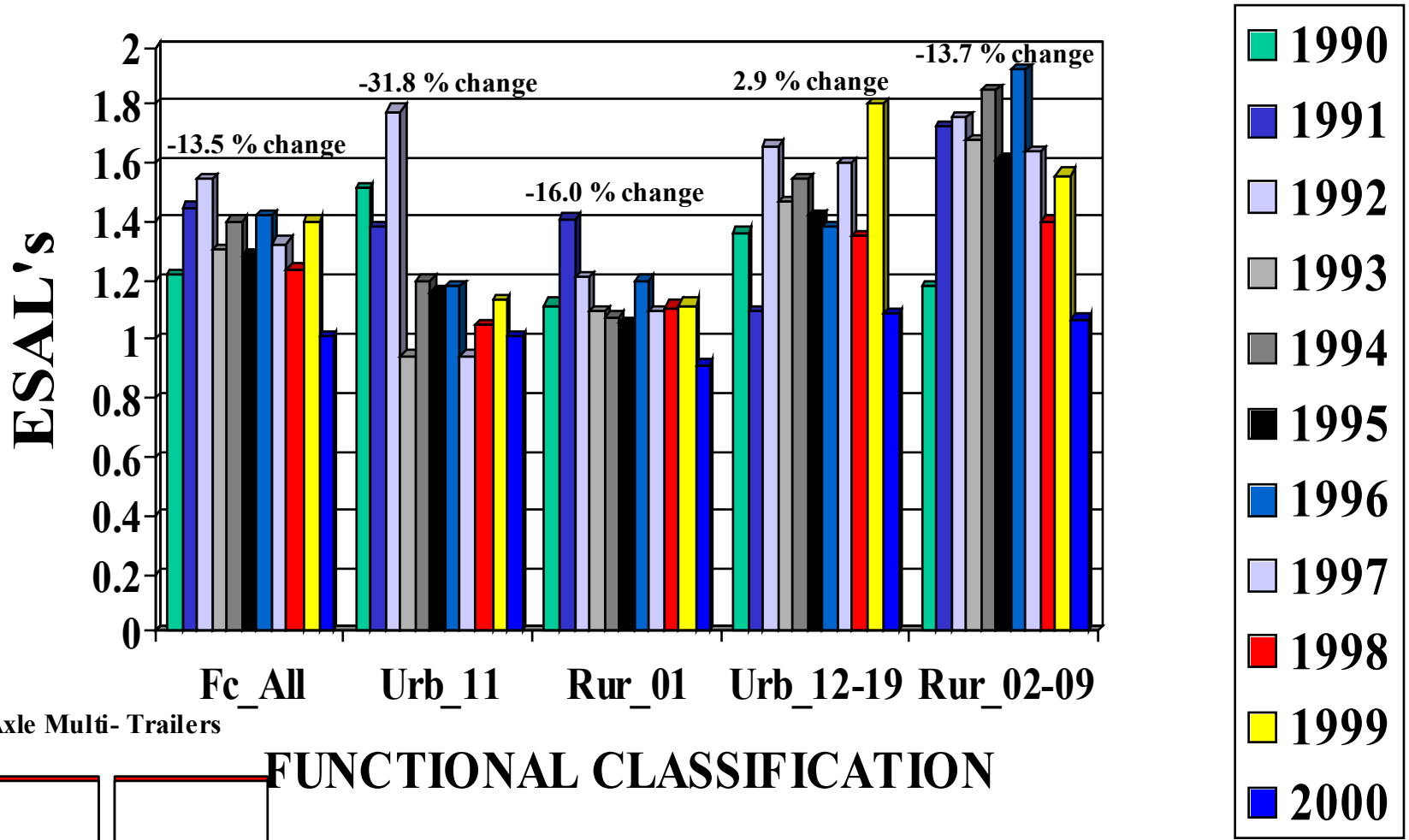
NATIONAL TREND ESAL's
TRUCKS CLASS 11



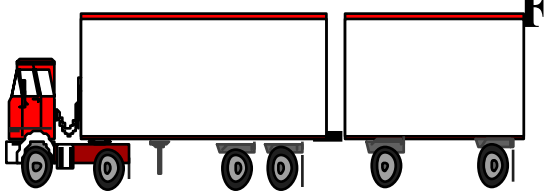
11 Five or Less Axle Multi-Trailers



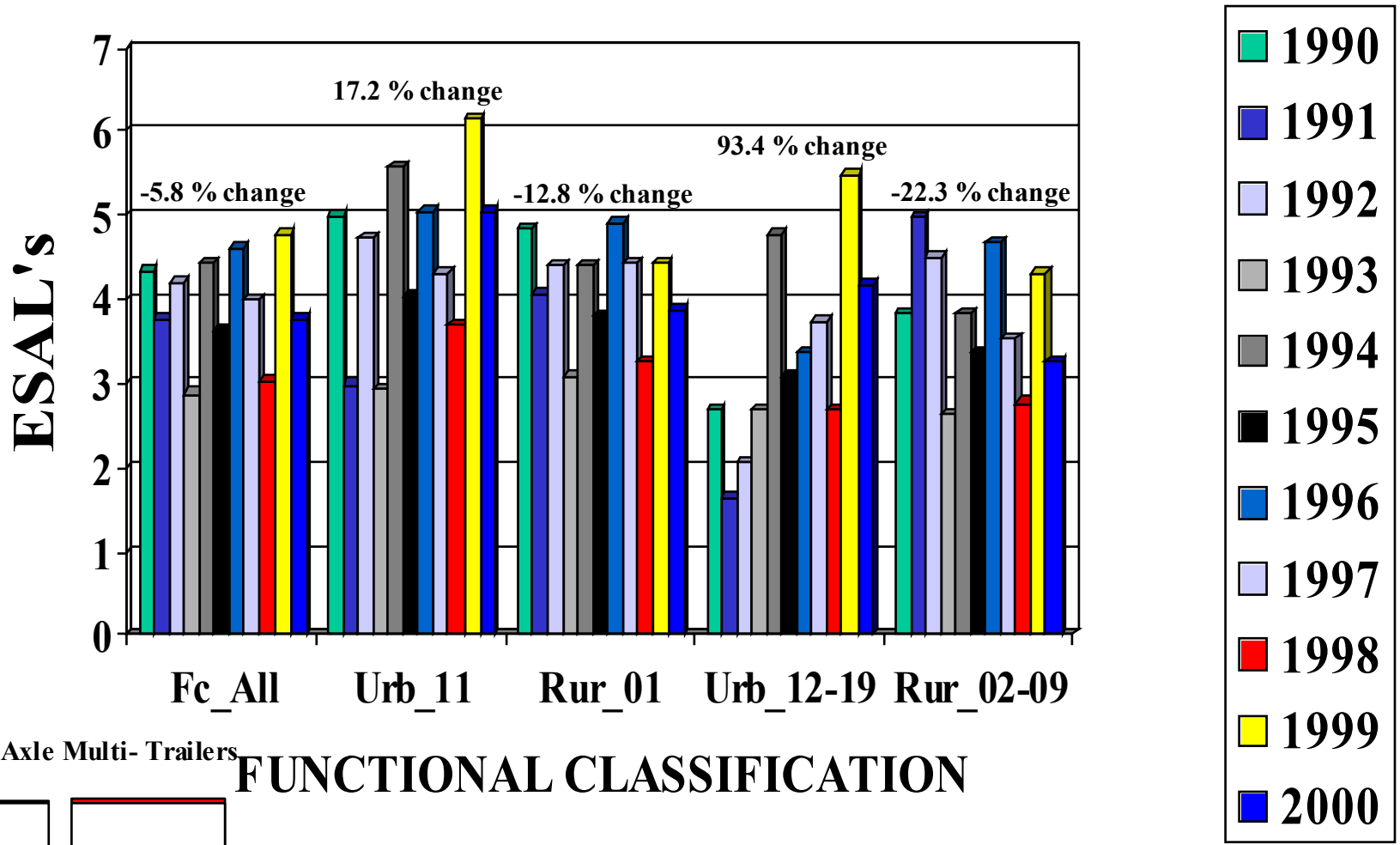
NATIONAL TREND ESAL's
TRUCKS CLASS 12



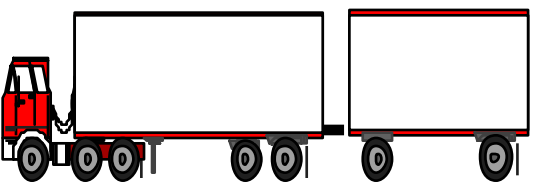
12 Six Axle Multi- Trailers



NATIONAL TREND ESAL's
TRUCKS CLASS 13

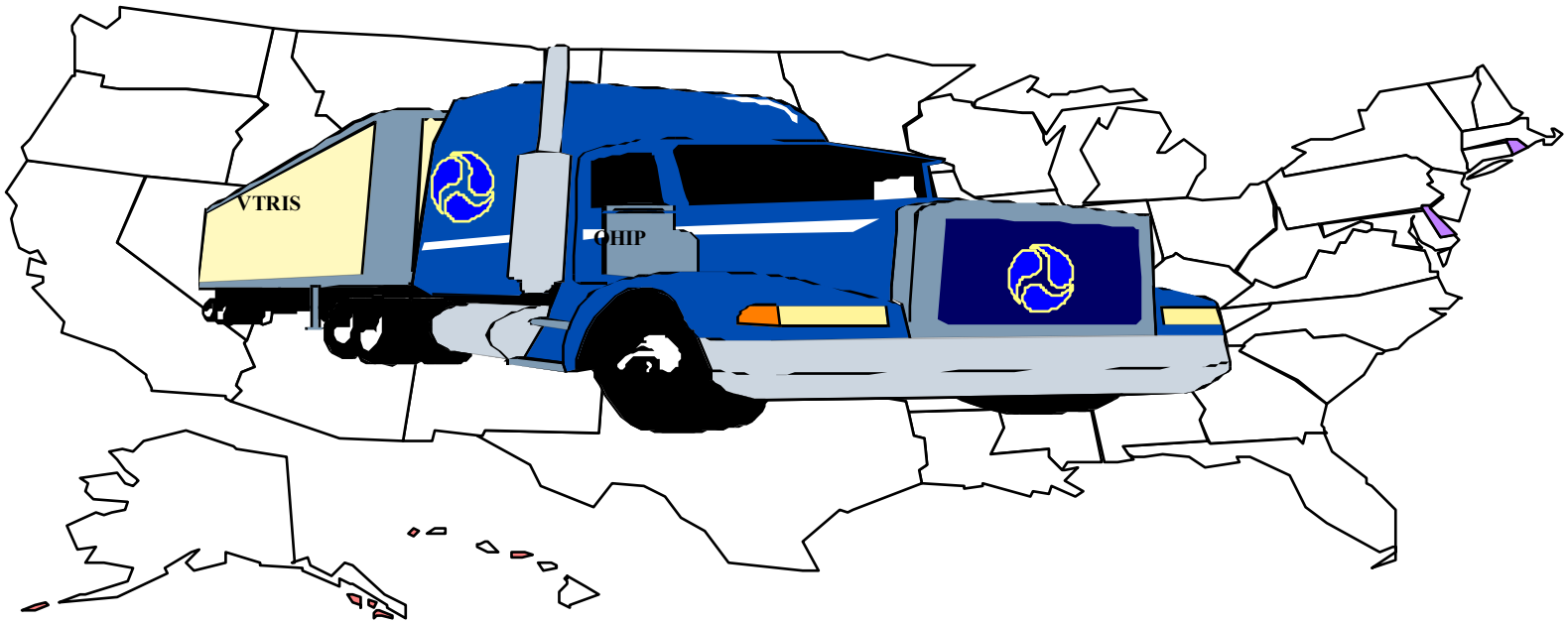


13 Seven or More Axle Multi- Trailers



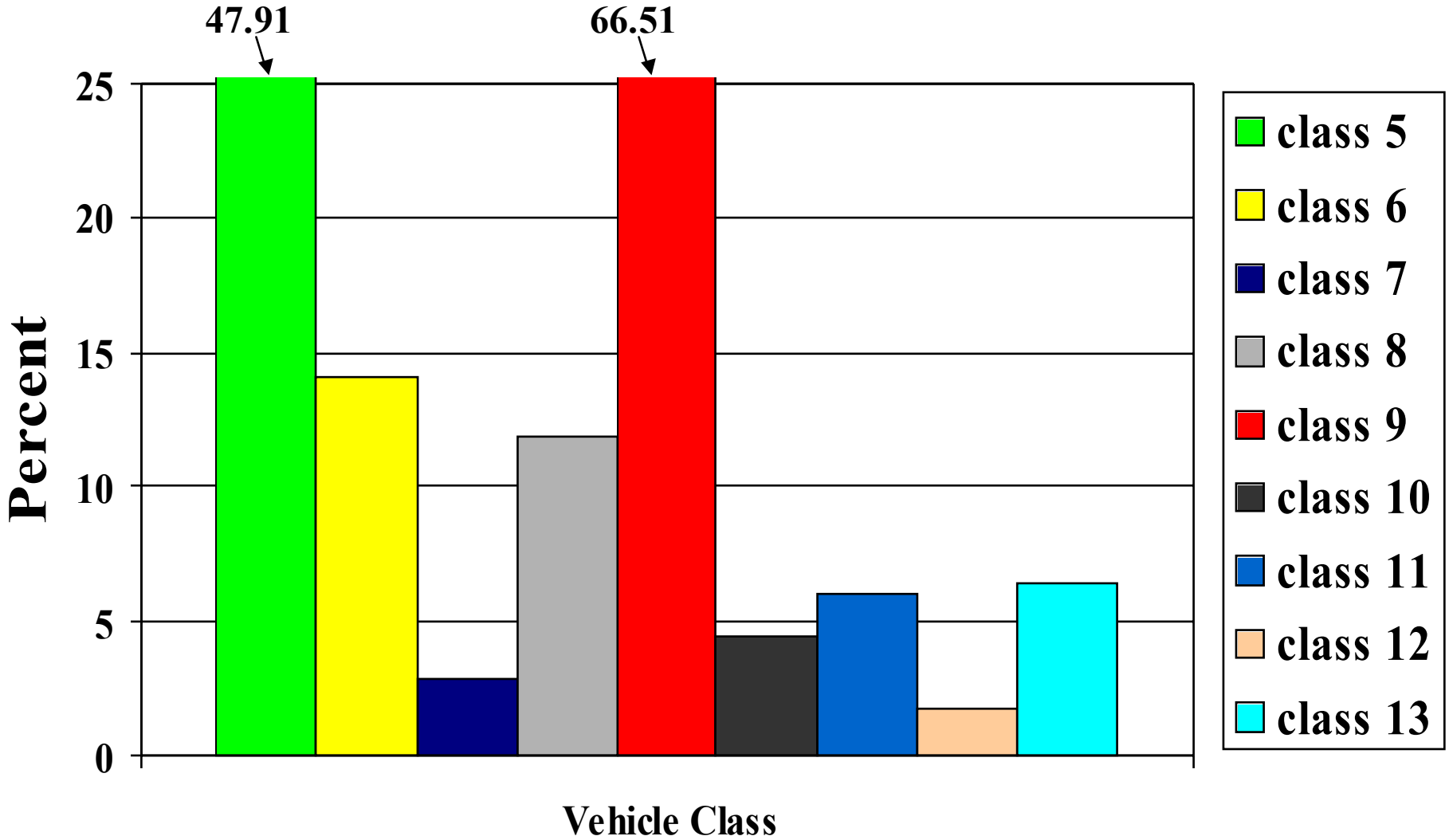
National Trend Percent Distribution of Truck Traffic

1990 to 2000

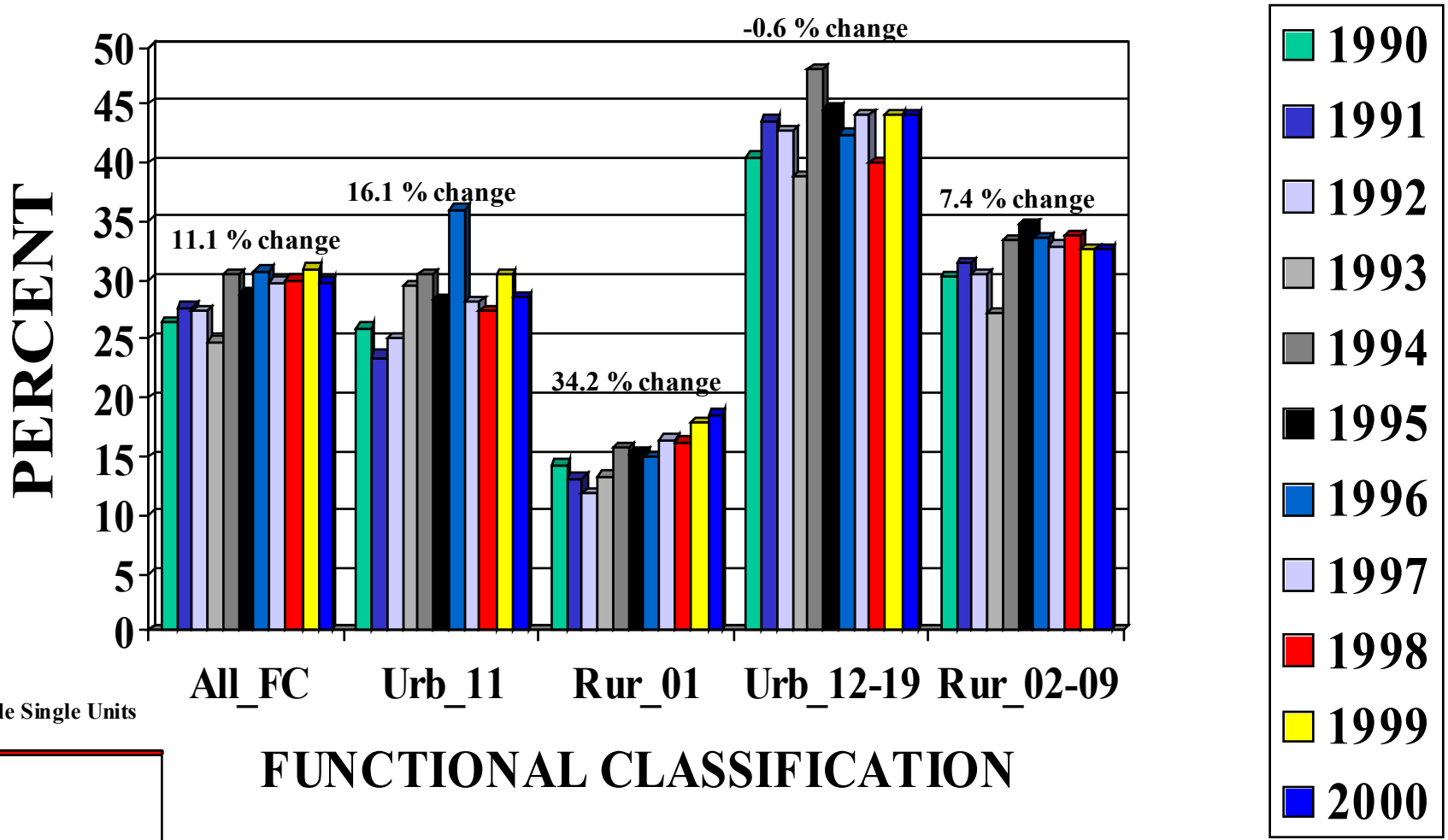


SOURCE: VTRIS Truck Weight Study Data

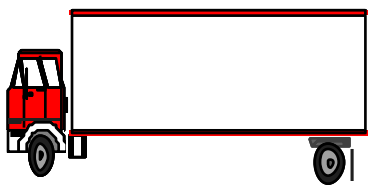
Variation of Percent Distribution Between Vehicle Type



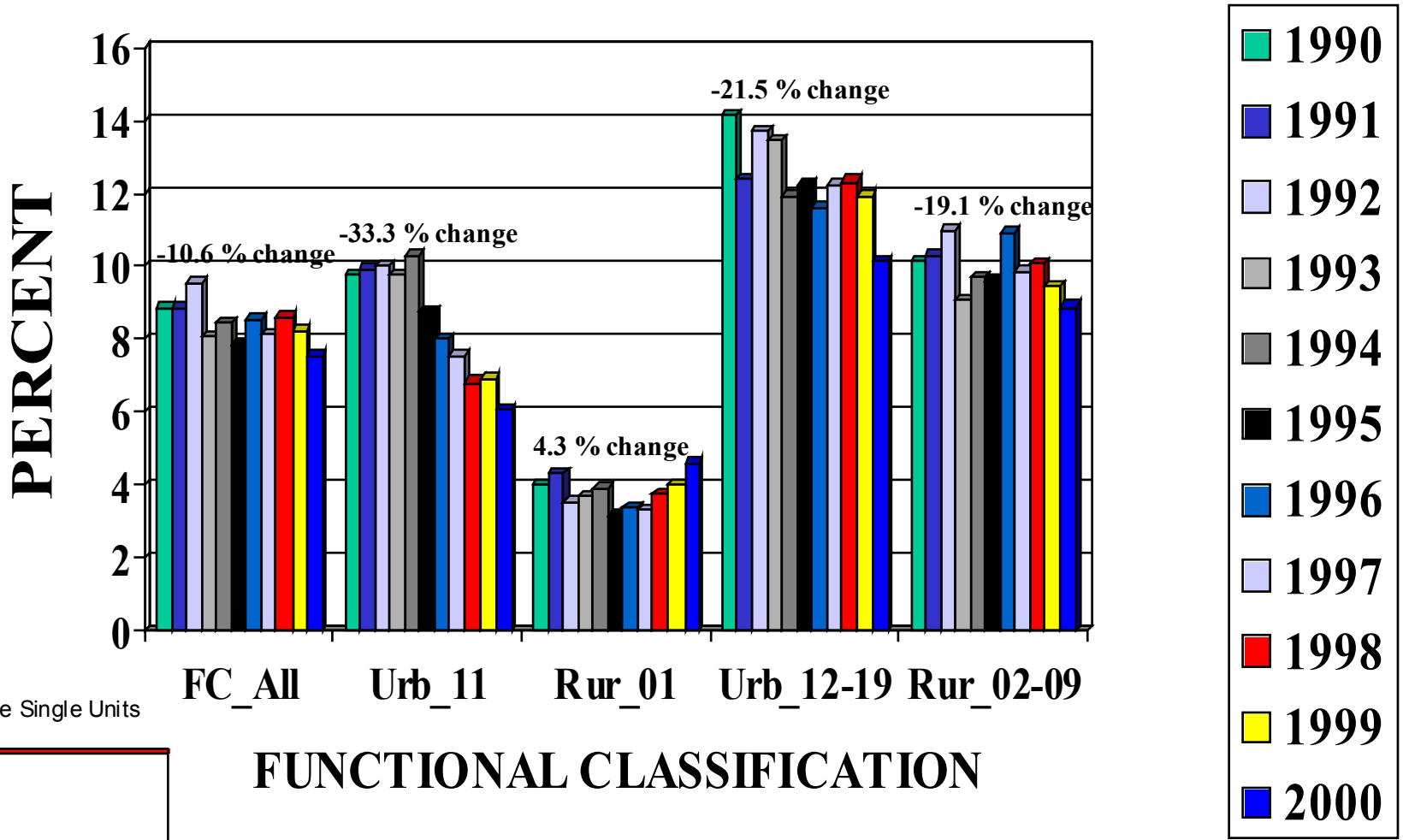
NATIONAL TREND PERCENT TRUCKS CLASS 5



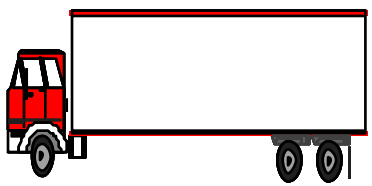
5 Two Axle Single Units



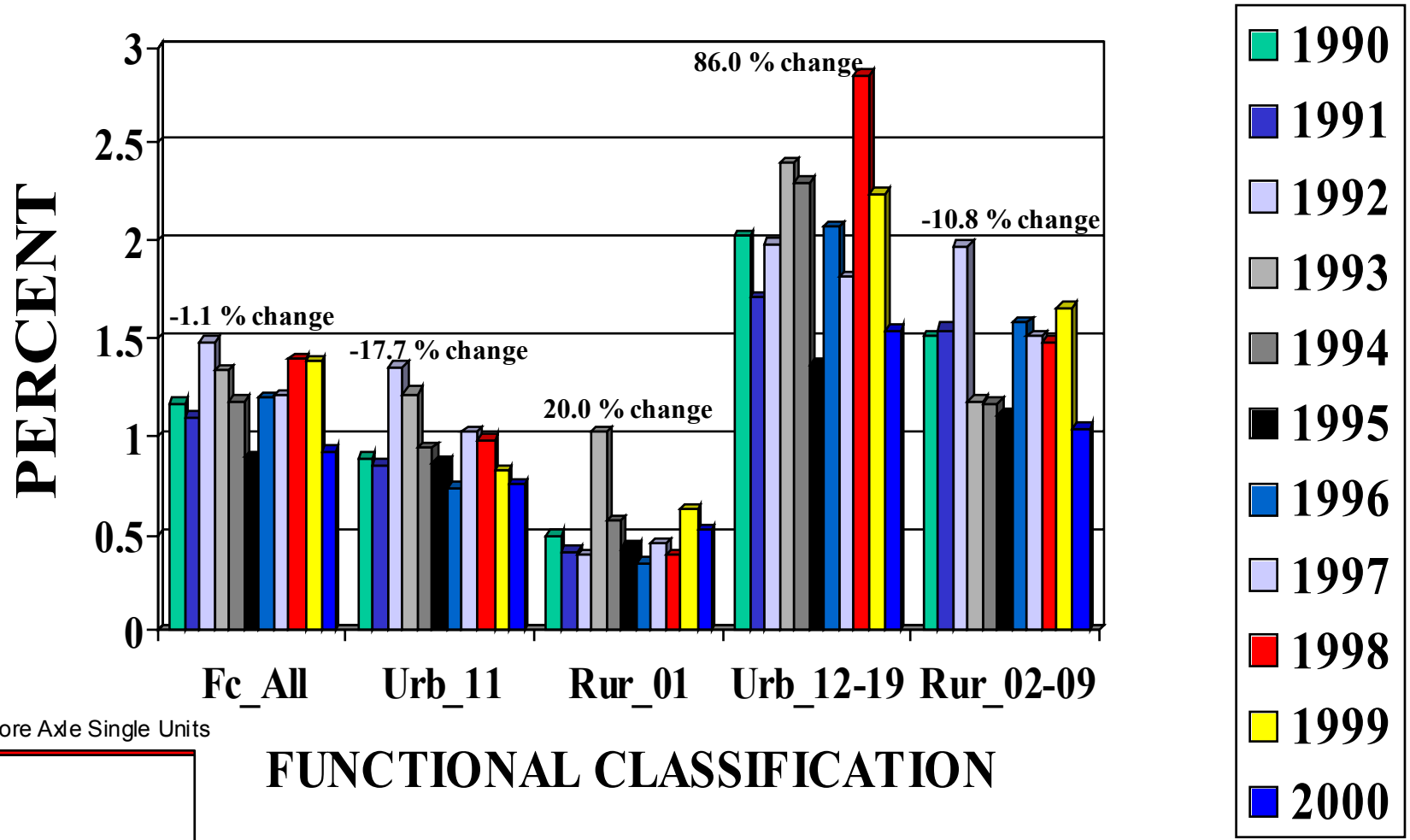
NATIONAL TREND PERCENT TRUCKS CLASS 6



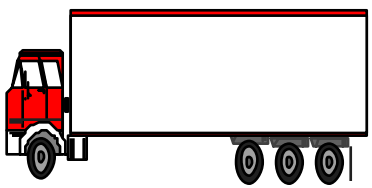
6 Three Axle Single Units



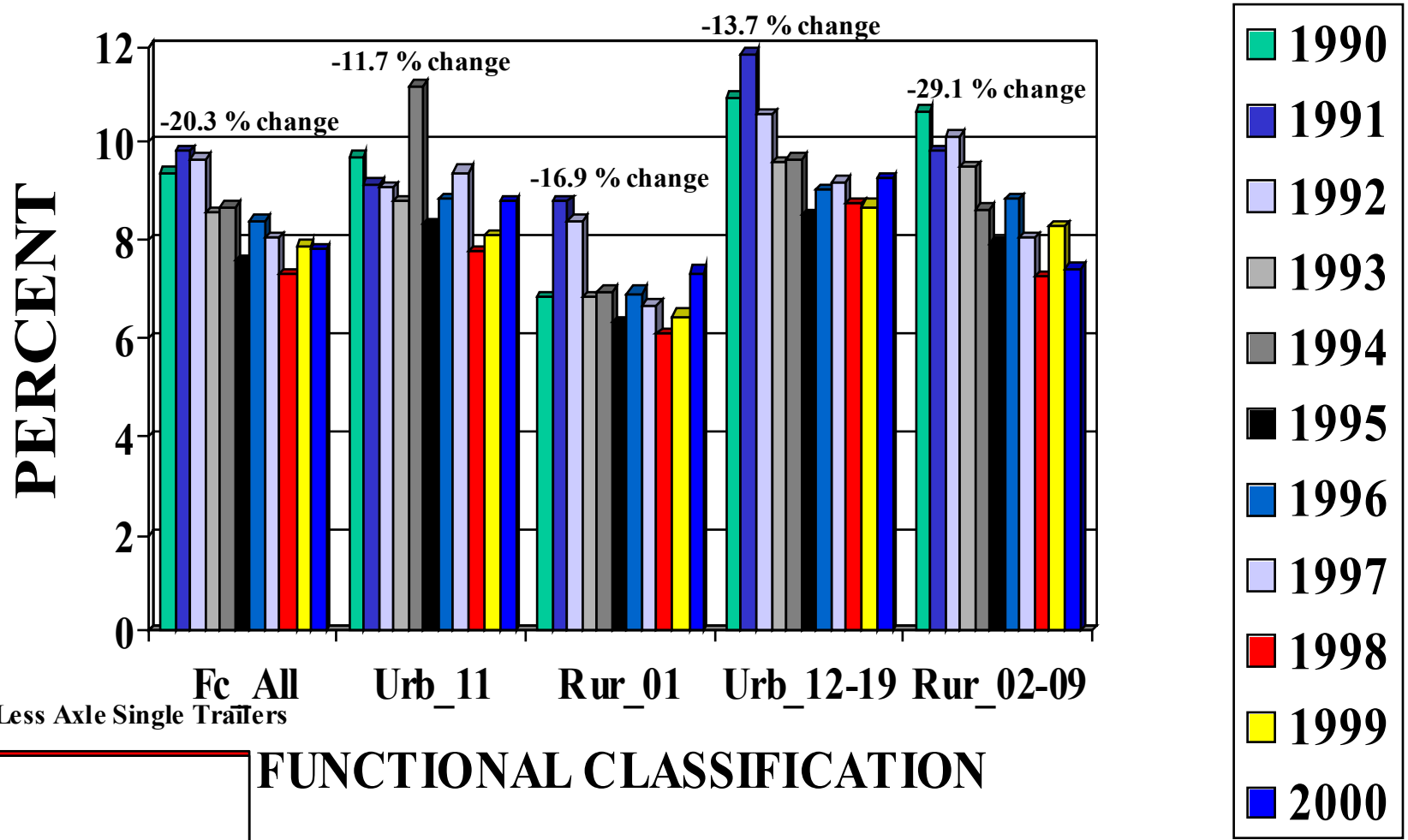
NATIONAL TREND PERCENT TRUCKS CLASS 7



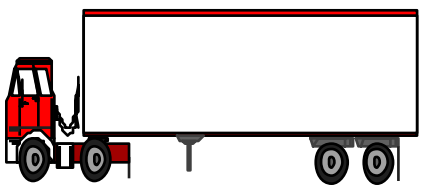
7 Four or More Axle Single Units



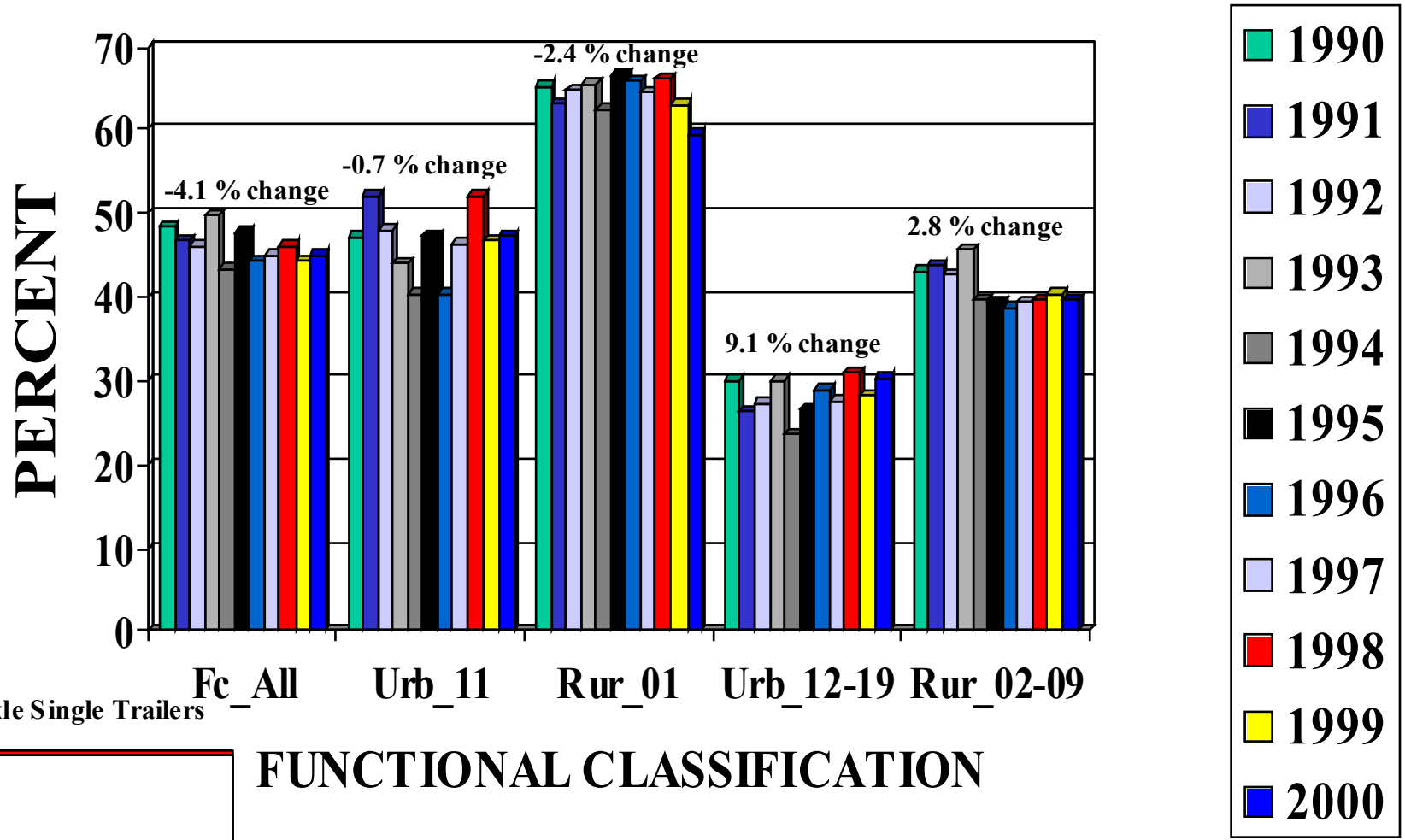
NATIONAL TREND PERCENT TRUCKS CLASS 8



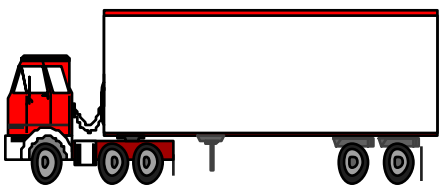
8 Four or Less Axle Single Trailers



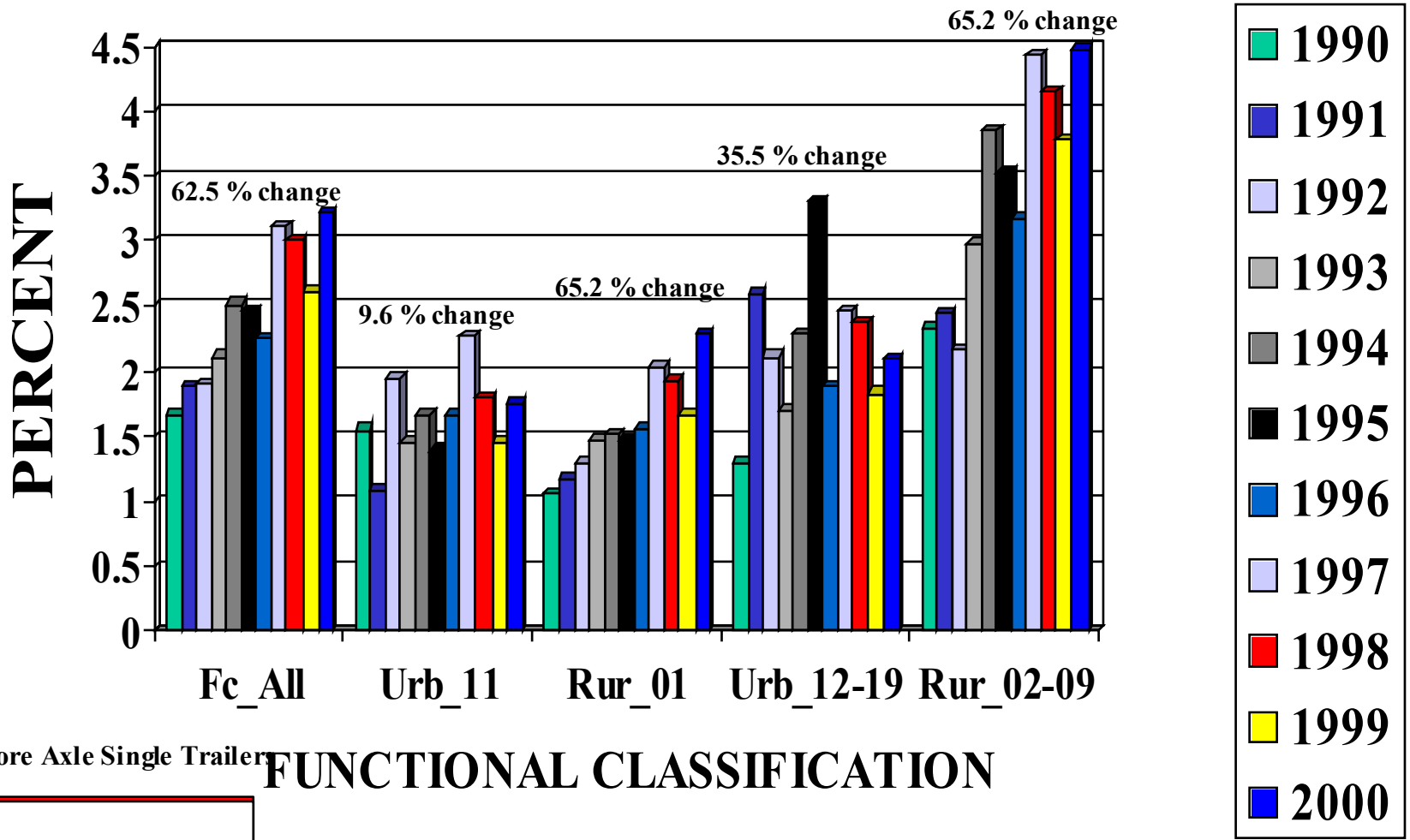
NATIONAL TREND PERCENT TRUCKS CLASS 9



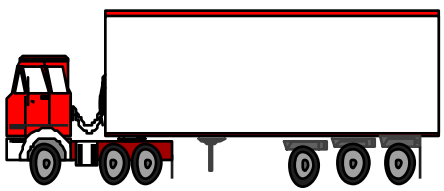
9 Five Axle Single Trailers



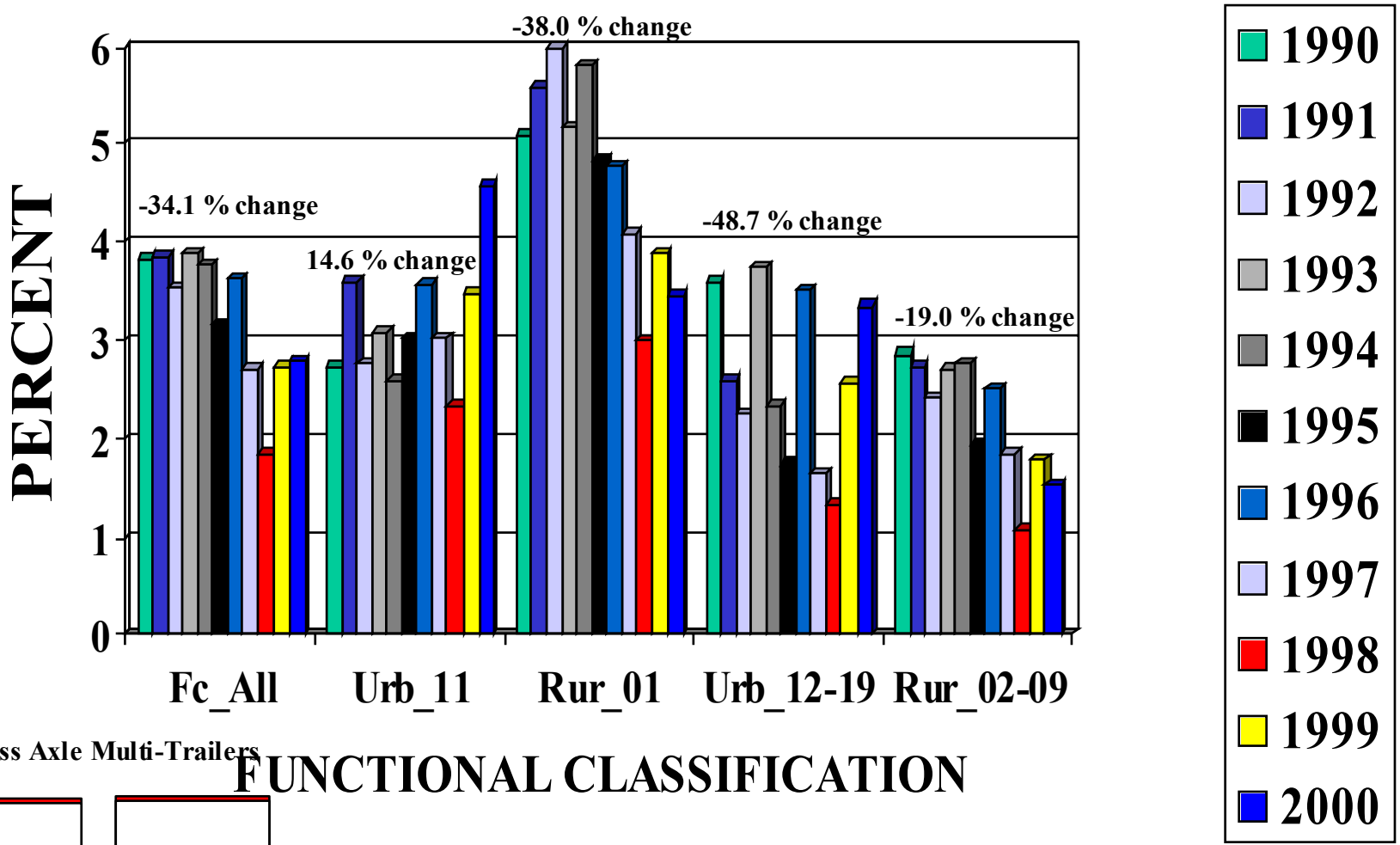
NATIONAL TREND PERCENT TRUCKS CLASS 10



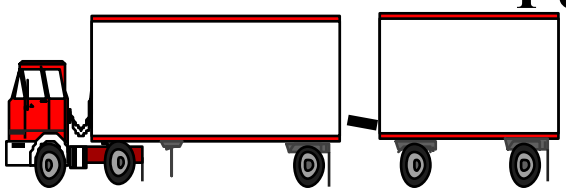
10 Six or More Axle Single Trailer



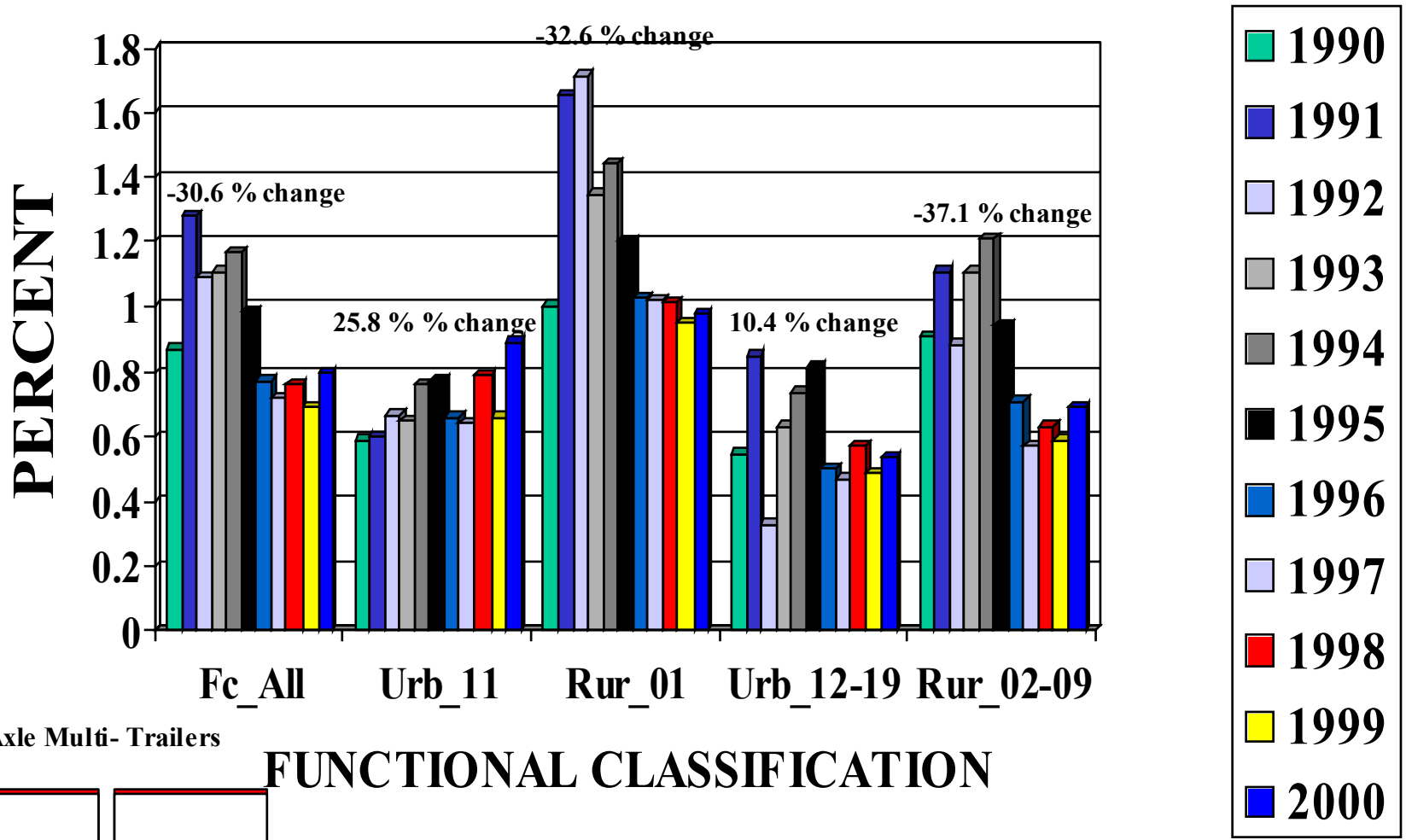
NATIONAL TREND PERCENT TRUCKS CLASS 11



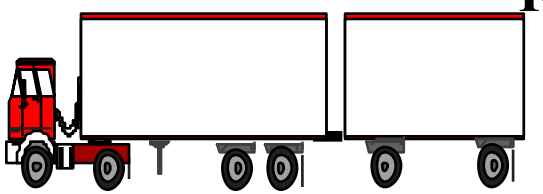
11 Five or Less Axle Multi-Trailers



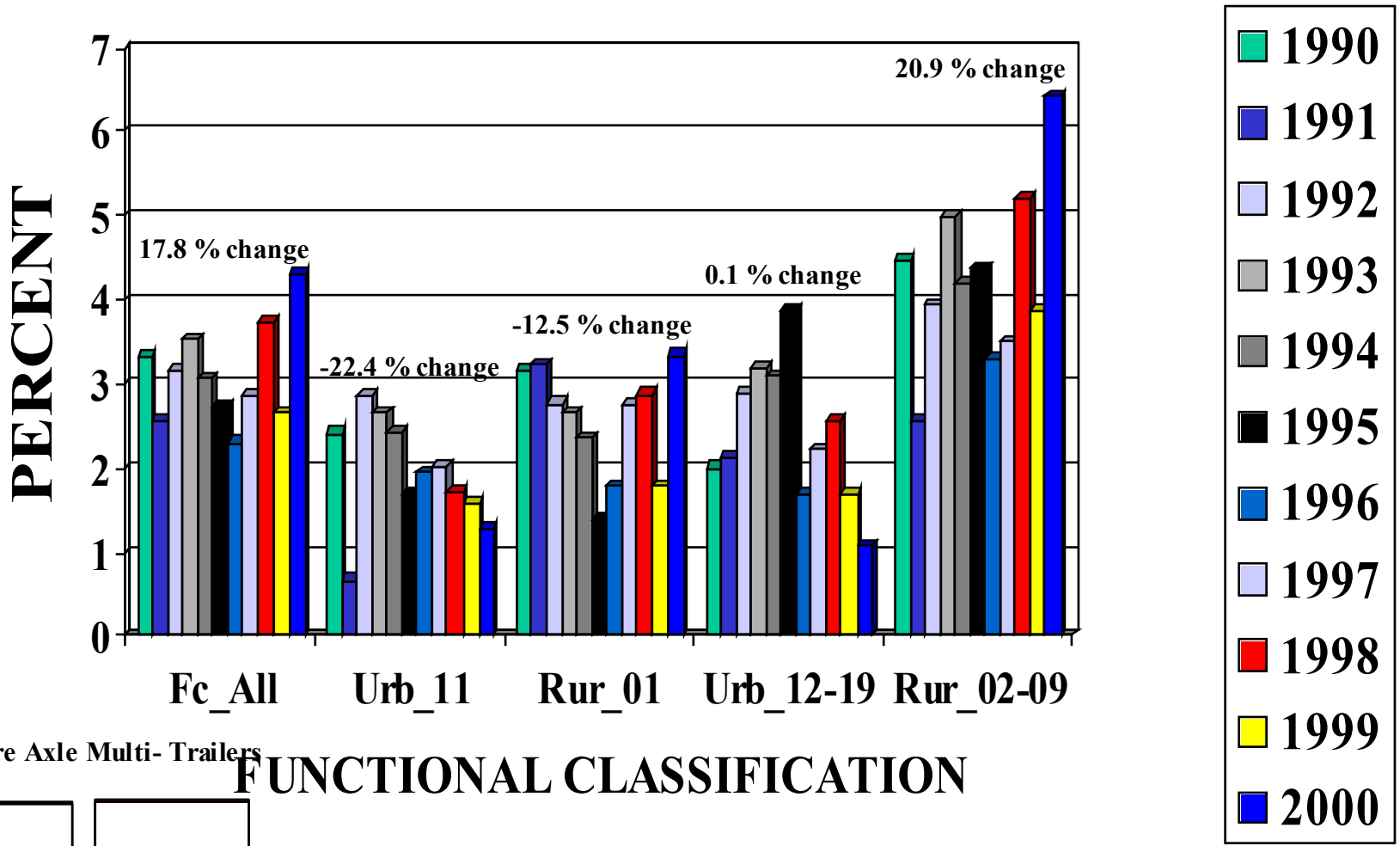
NATIONAL TREND PERCENT TRUCKS CLASS 12



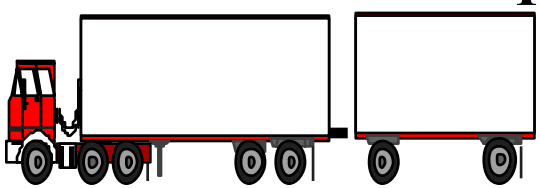
12 Six Axle Multi- Trailers



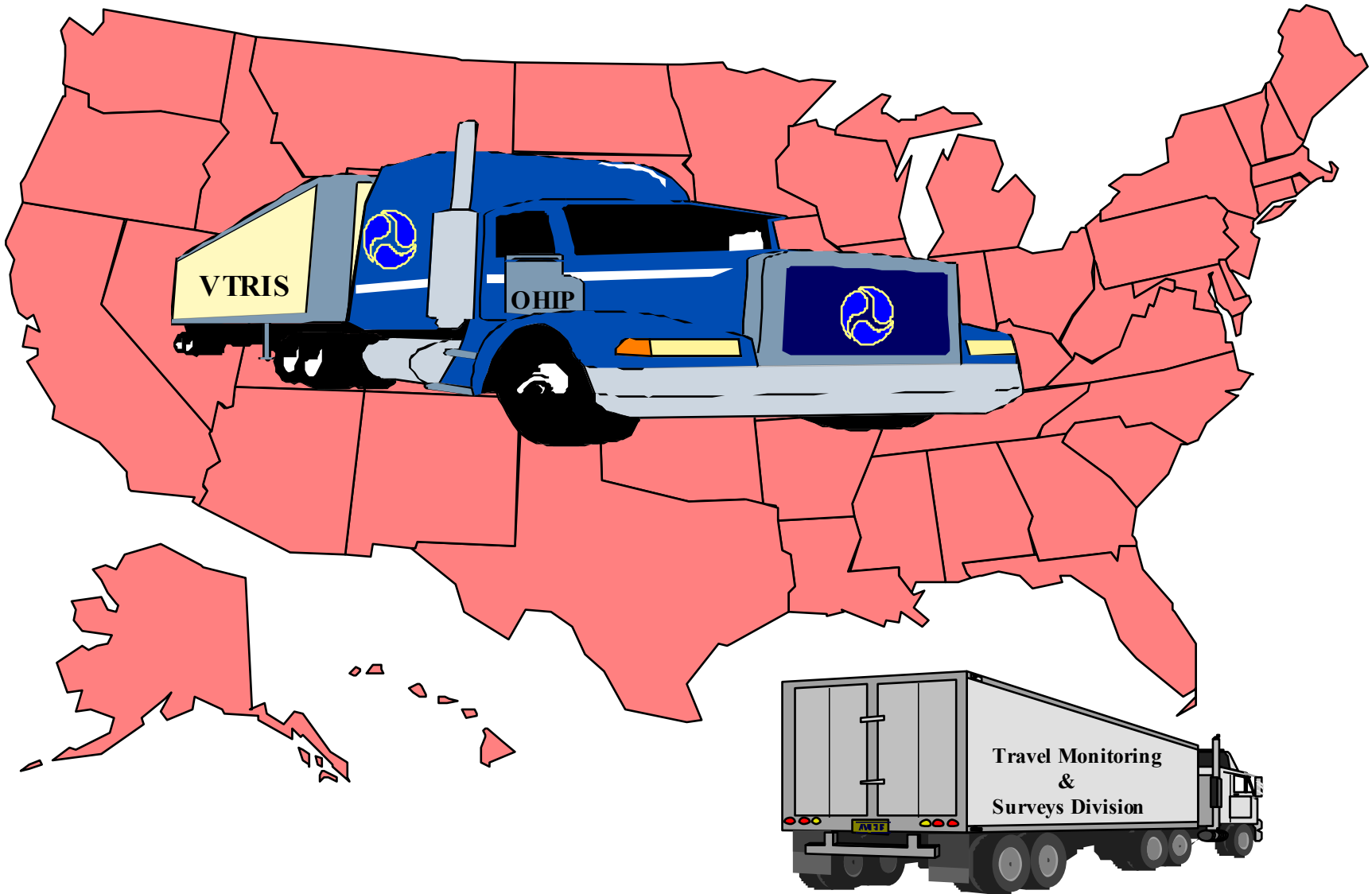
NATIONAL TREND PERCENT TRUCKS CLASS 13



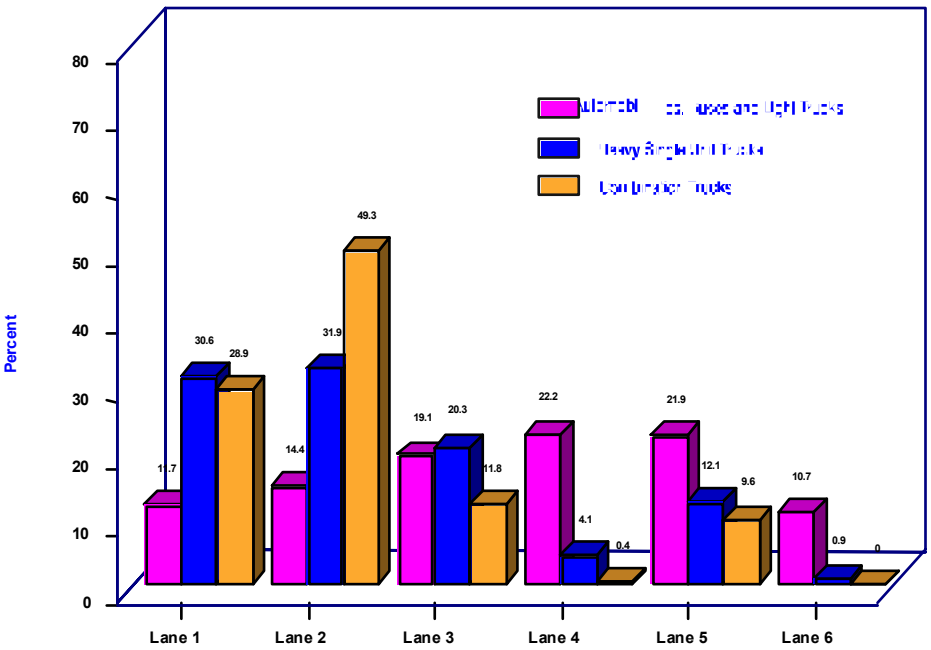
13 Seven or More Axle Multi- Trailers



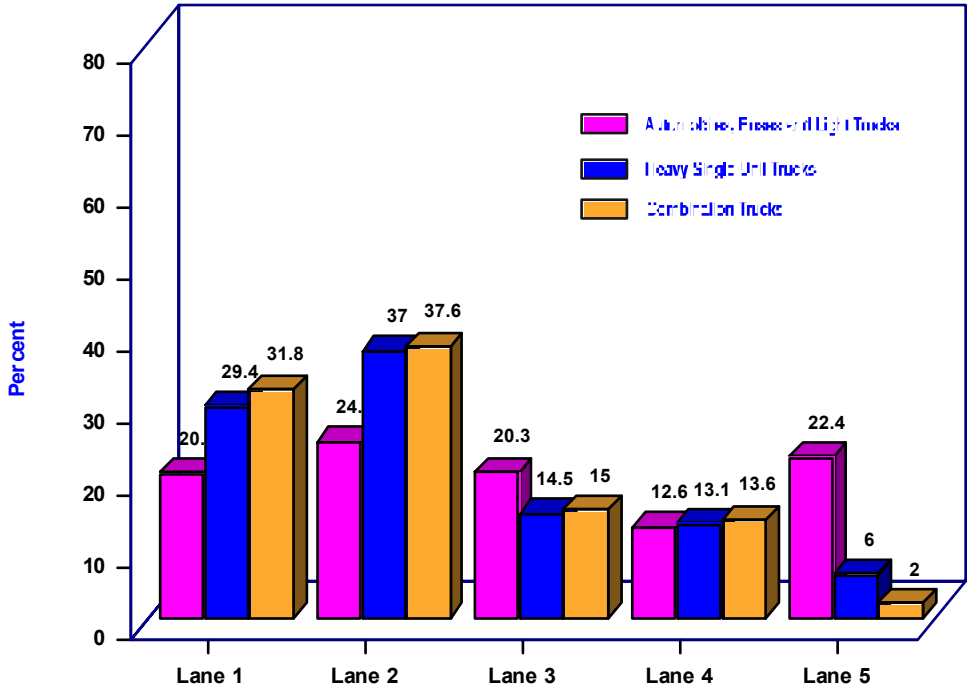
National Trend Distribution Travel by Lane



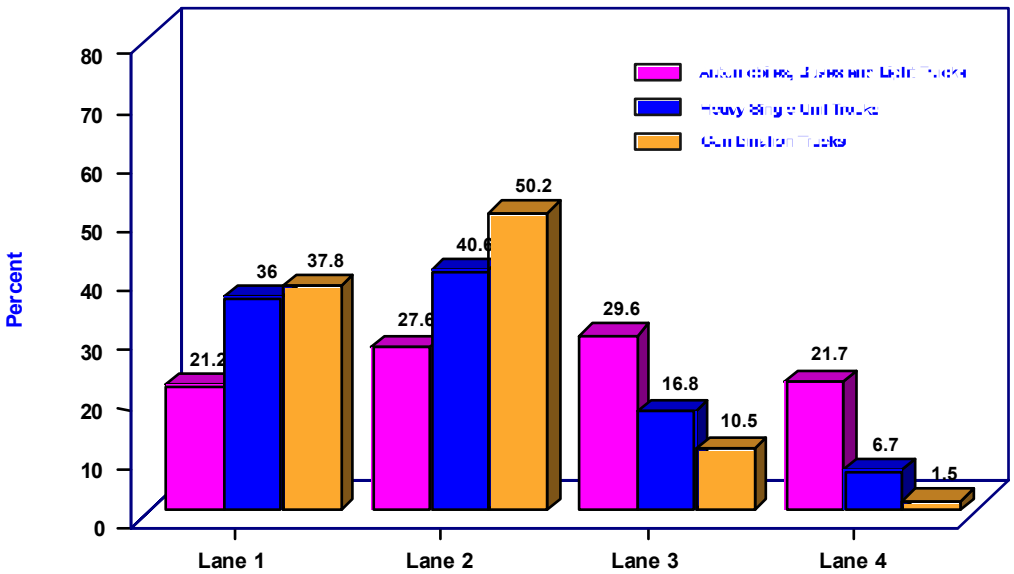
6 Lane Facilities



5 Lane Facilities

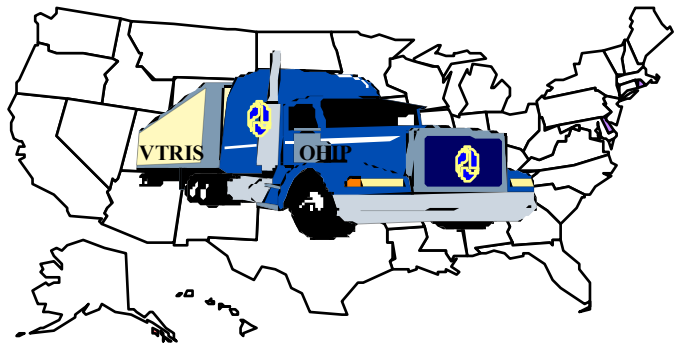


4 Lane Facilities



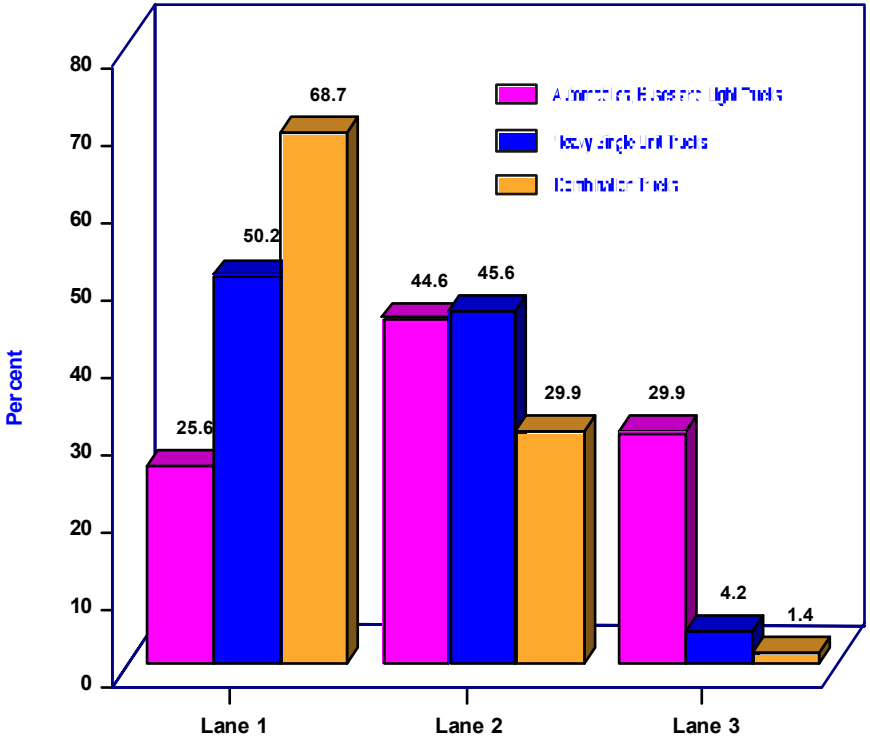
Distribution of Vehicle Travel by Lane

by Vehicle Type (2000)

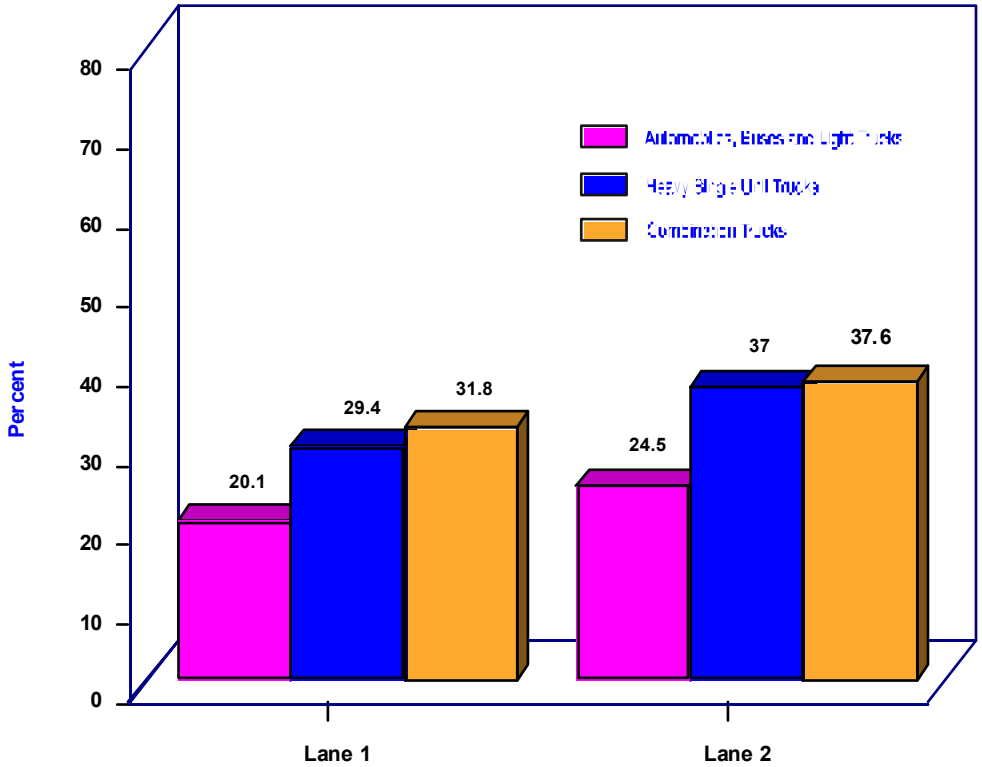


SOURCE: VTRIS Truck Weight Study Data

3 Lane Facilities



2 Lane Facilities

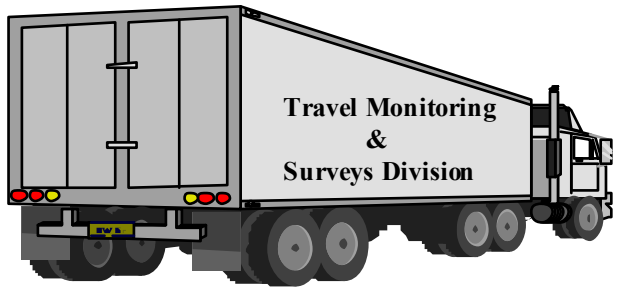


Distribution of Vehicle Travel by Lane

by Vehicle Type (2000)

SOURCE: VTRIS Truck Weight Study Data

THE END



VTRIS Reports:
http://fhwadap10.fhwa.dot.gov/vtris/vtris.aspx

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