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Washington State Department of Transportation

The Fuel and Vehicle Trends Report

November 3, 2009

This report is a summary of articles appearing in popular, business, and technical media referring to fuel price, production and tax collection trends as well as vehicle sales and registration trends. At the end of the report is a listing of all articles summarized, with hyperlinks to internet sources where available. Some hyperlinks may require free registration or paid subscriptions to access. The appearance of articles, products, opinions, and links in this summary does not constitute an endorsement by the Washington State Department of Transportation. Photos and other artwork included in the report are either included with permission or are in the public domain. *The Fuel and Vehicle Trends Report* **(ISSN 1948-2388)** is compiled by Lizbeth Martin-Mahar, Ph. D., Fanny Nyaribo Roberts, Ph. D., and Thomas L. R. Smith, Ph. D., Economic Analysis Section, Budget and Financial Analysis Office of the Washington State Department of Transportation. Contact the editors by email at martinli@wsdot.wa.gov, nyaribf@wsdot.wa.gov or smithtm@wsdot.wa.gov by telephone at (360) 705-7991 or (360) 705-7941.

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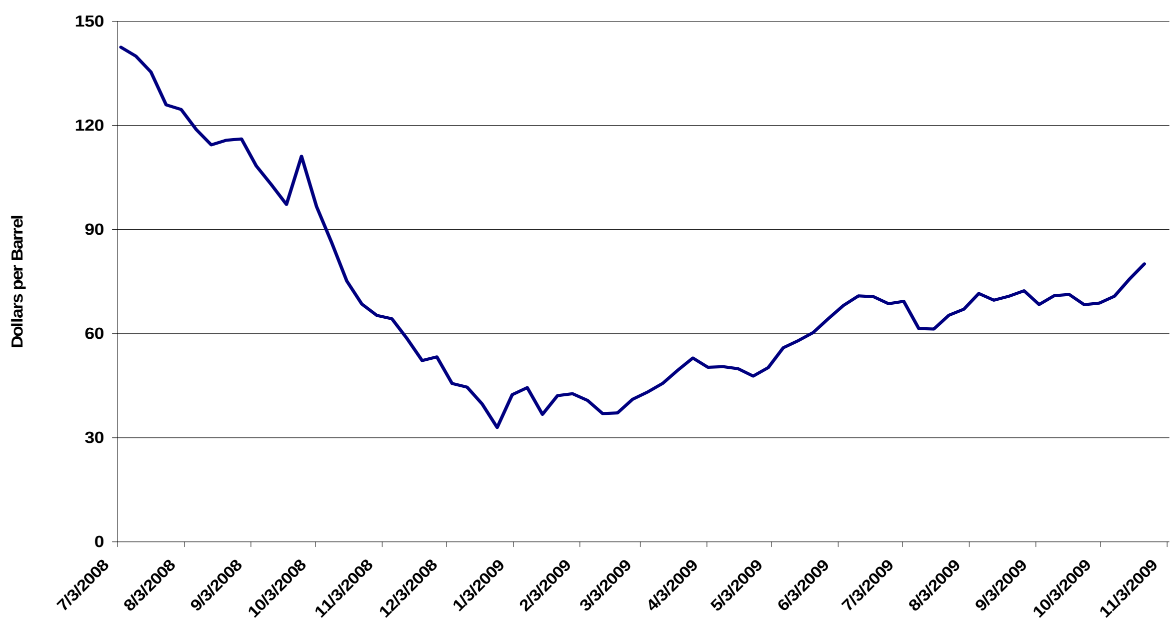
FUEL PRICE TRENDS: Crude, Gasoline and Diesel Markets

Analysis by Fanny Nyaribo Roberts, Ph. D.

Figure 1. Weekly Cushing, OK WTI Spot Price FOB (Dollars Per Barrel) July 4, 2008 to November 3, 2009



Source: Energy Information Administration (EIA), 2009a

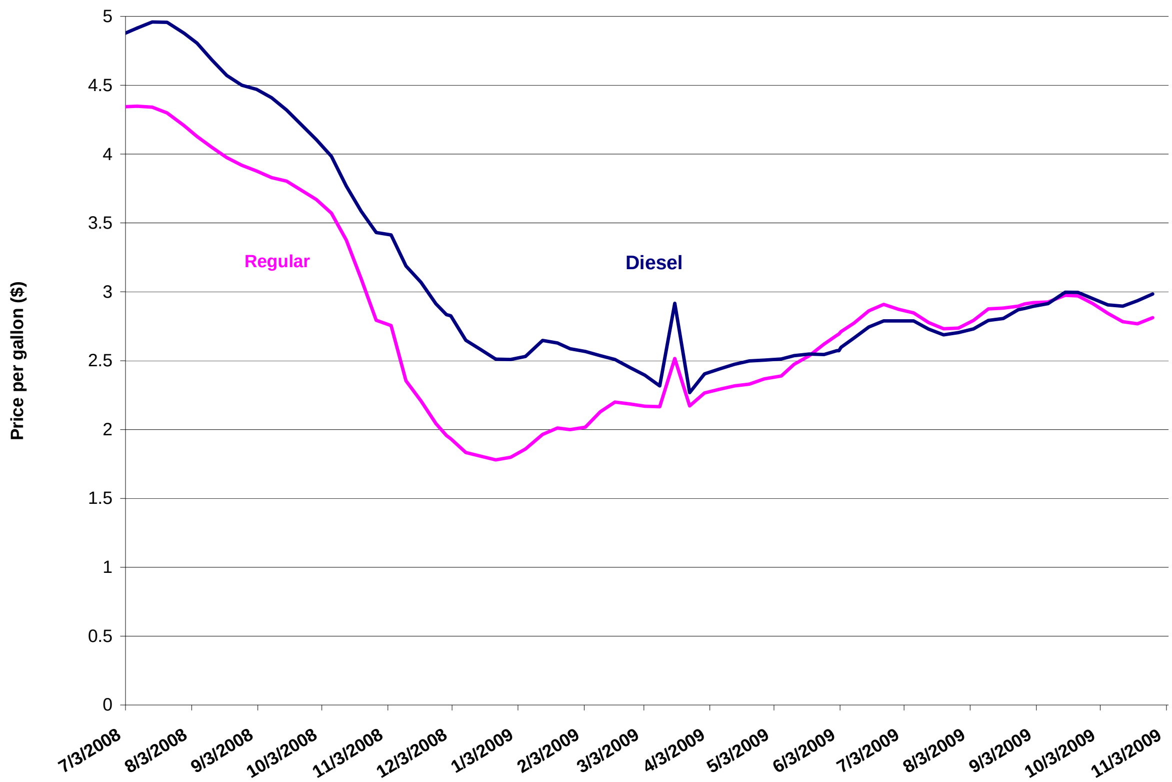
Since reaching a low of $37 per barrel in February 2009 crude oil prices have more than doubled with the average West Texas Intermediate (WTI) spot crude price settling at just under $74 per barrel on average in October (Figure 1). The average per barrel price for Brent crude (Europe) for the same time period was $70, while the OPEC basket crude oil price was just below $72. EIA projects WTI spot prices to remain at $70 per barrel for the rest of 2009 and average about $75 per barrel in 2010 (EIA, 2009b). EIA anticipates an economic upswing at the end of 2009 although the timing and speed of recovery is still uncertain, however when it does happen oil demand will be restored quickly enough to absorb current excess oil inventories. (EIAd, 2009). At this writing WTI is trading at $78, while both Brent and OPEC reported a closing price of $76.

Crude oil futures prices in October hovered in the $80-$81 per barrel range after breaking through $75 per barrel in September (EIAa, 2009). Higher futures prices are sustained by hopes of a recovering economy and a weak dollar. A weak dollar encourages investors to buy oil; this bids up crude oil prices.

Consumer confidence improved in the month of October as measured by the Index of Consumer Sentiment which rose slightly from 73.5 percent to 73.7 percent (Institute of Social Research (ISR), 2009). ISR reports that the on-going economic recovery is going to be very different from previous recoveries due to changes in consumers' propensities to spend and/or save. The changes are due to significant adverse impacts on consumers' budget constraints due to the recession that will take many years to recover to pre-recession levels. Even with a budget constrained recovery "consumers now put debt reduction and increased savings at the top of their agendas rather than the quick resumption of postponed spending plans." (ISR, 2009). Changes in consumer spending are in line with a decline in global oil consumption which has fallen by about 3.2 million barrels per day in the first half of 2009 compared to the same period a year ago (EIAc, 2009). The largest share of that global oil consumption decline occurred in the OECD countries and non-OECD countries' decline was only 400,000 barrels per day.

In terms of inventories of oil stocks, there has not been much change since our last report. Excess inventories are still evident on the global market. On October 23, 2009 U.S. crude oil stocks were at 339.9 million barrels, the normal average range at the start of the fall season is usually less than 340 million barrels (EIA, 2009b). Additionally, Organization of Petroleum Exporting Countries (OPEC) reports that distillate stocks (which include diesel) are at very high levels both on land and on floating storage (OPEC, 2009). Because of these high levels of inventories, future crude oil prices hinge on how fast the global and U.S. economies grow now that the recession appears to have bottomed out.

Figure 2. Washington Retail Gasoline and Diesel Prices ($ per gallon): July 1, 2008 - November 3, 2009



Source: AAA Washington Weekly Retail Price Survey

Washington's average retail regular gasoline price was $2.80 per gallon in October 2009 compared to an average price of $ 2.94 for the month of September. The average monthly price of regular gasoline in October 2008 was $3.21. In contrast, the national monthly average price in October 2009 for regular gasoline was $2.55 per gallon. EIA's annual US retail price forecast for regular gasoline is $2.44 per gallon and $2.66 per gallon in 2010 (EIAe, October 2009).

The average national diesel price rose for five consecutive weeks reaching a high of $2.67 per gallon on August 24th, 2009 before dropping to a weekly average of $2.60 per gallon during the week of September 28th. At the end of October the national retail diesel price was $2.80 per gallon. In Washington State the average retail price of diesel has risen steadily from $2.70 per gallon on July 28th, 2009 to a high of $ 2.98 on October 27th. EIA and other industry experts report an on-going increase in global demand for distillate which includes diesel. It is not easy to predict which way prices will go considering the U.S. has now become a net distillate exporter (EIAf, 2009). Differences between Washington's retail prices of diesel and gasoline have been minimal during

September. The difference has grown in October with the retail price of diesel growing faster than the retail price of gasoline. EIA forecasts an annual US average price of $2.60 per gallon in 2009 and $2.89 per gallon in 2010.

FUEL PRICES AND CRUDE OIL PRICE TRENDS COMPARED TO RECENT FORECASTS: Washington Retail price of gasoline and diesel and US crude oil prices
Analysis by Lizbeth Martin-Mahar, Ph. D.

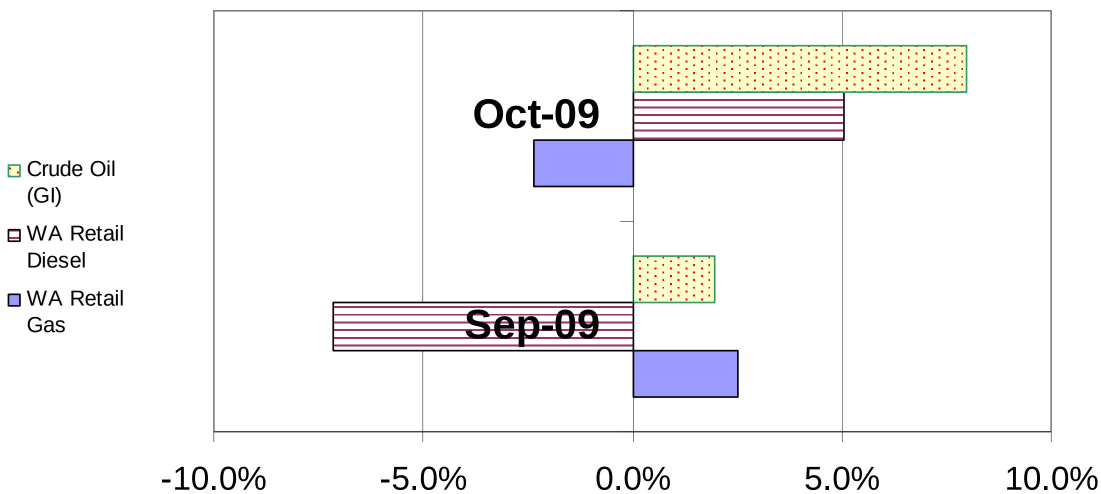
Actual September 2009 Washington average retail gasoline and US WTI crude oil prices were above the third quarter average fuel price forecast in September. Washington average retail diesel prices were below the third quarter average diesel price forecast in September. In October, the opposite occurred as the average Washington retail price of gasoline has fallen below the third quarter gas price forecast and the retail price of diesel in Washington has risen above the third quarter average diesel price projected in September. In October, Washington's retail price of diesel grew faster than gasoline prices. Average crude oil prices for October rose further above the average third quarter crude oil projection of $68 per barrel. The Figure 3 bar graph reveals these trends.

In the September 2009 Washington transportation fuel price forecast, the US average WTI crude oil price forecast for the third quarter of 2009 is $68 per barrel. Crude oil prices since August have been above this $68 per barrel projection and now in October averaged $74 per barrel. This October average price is 8% above the forecast made in September for crude oil prices in the third quarter.

Washington's actual average retail price of gasoline for the month of September 2009 was higher than forecasted for gasoline but not for diesel. The average regular retail price of gasoline in Washington is forecasted at $2.87 per gallon for the third quarter of 2009. In September, the actual monthly average price of gasoline was $2.94 per gallon which was 2.5% above the average forecast for the third quarter. In October, the actual monthly average price of gasoline was $2.80 per gallon which was 2.4% below the average forecast for the third quarter. On average, these past two months the retail price of gasoline have averaged very close to the September forecast for the third quarter average gas price.

Washington's September forecast for the retail price of diesel was $2.79 per gallon in the third quarter of 2009. In September, the actual monthly average diesel price was $2.59 or lower than the third quarter projections by 7%. By October, the actual monthly average diesel price had risen to $2.93 per gallon or 5% above the forecasted average for the third quarter of 2009. These results reveal that in October, retail diesel prices rose faster than anticipated in September and faster than retail gasoline prices.

Figure 3. Percent Change in Sept.-Oct. Actuals Compared to the Sept. 2009 Third Quarter Price Forecast for Washington Retail Gasoline and Diesel and Crude Oil Prices



Source: Washington Transportation Revenue Forecast Council September 2009 Forecast and monthly fuel prices from AAA and EIA.

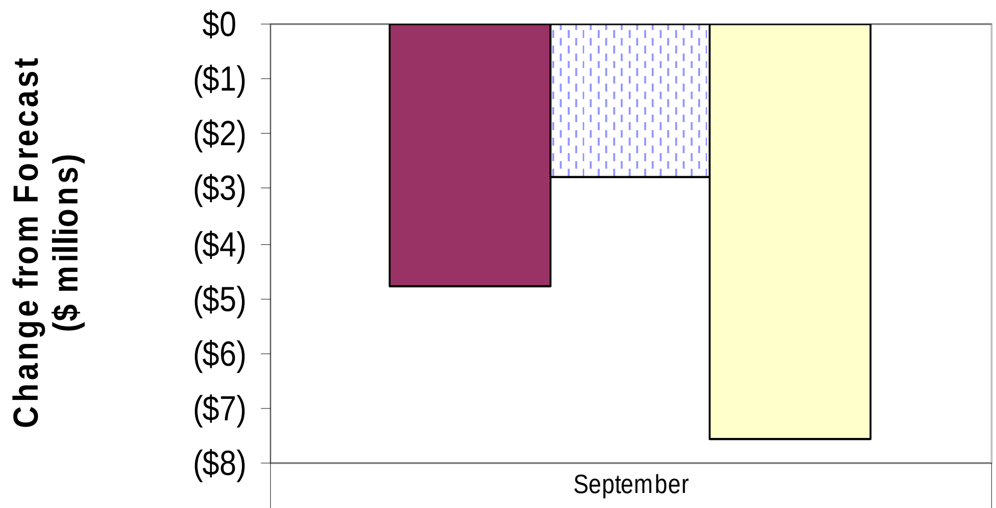
WA MOTOR VEHICLE FUEL TAX COLLECTION TRENDS COMPARED TO RECENT FORECASTS: Gasoline and Diesel Tax Collections

Analysis by Lizbeth Martin-Mahar, Ph. D.

The August 2009 monthly collections of gross motor vehicle fuel taxes came in at $112.7 million which was surprisingly close, within 0.3%, to the monthly June forecast. Actual gross diesel tax collections in August were $21 million and gasoline tax collections were $91.5 million which were both only slightly below projections. These August gross fuel tax collections were used in the September 2009 fuel tax forecast.

September monthly fuel tax collections came in at $110 million which was an overall decline of $7.6 million from September projections. This decline is largely due to gasoline tax collections coming in under forecast by $4.8 million which is a 3.9% decline from the $89 million monthly forecast for September. Figure 4 reveals the change in motor vehicle fuel tax collections for the month of September from the September 2009 forecast. Overall, motor vehicle fuel tax collections declined $7.16 million from the last forecast, representing a 6.8% decline from the $118 million September projection.

Figure 4. Motor Vehicle Fuel Tax Collections (September) Compared to September Revenue Forecast



	September
Gasoline	$(4.8)
Diesel	$(2.8)
All Motor Fuel	$(7.6)
Percent of total	6.8%

Source: Washington Transportation Revenue Forecast Council September 2009 Forecast and Department of Licensing monthly treasury reports

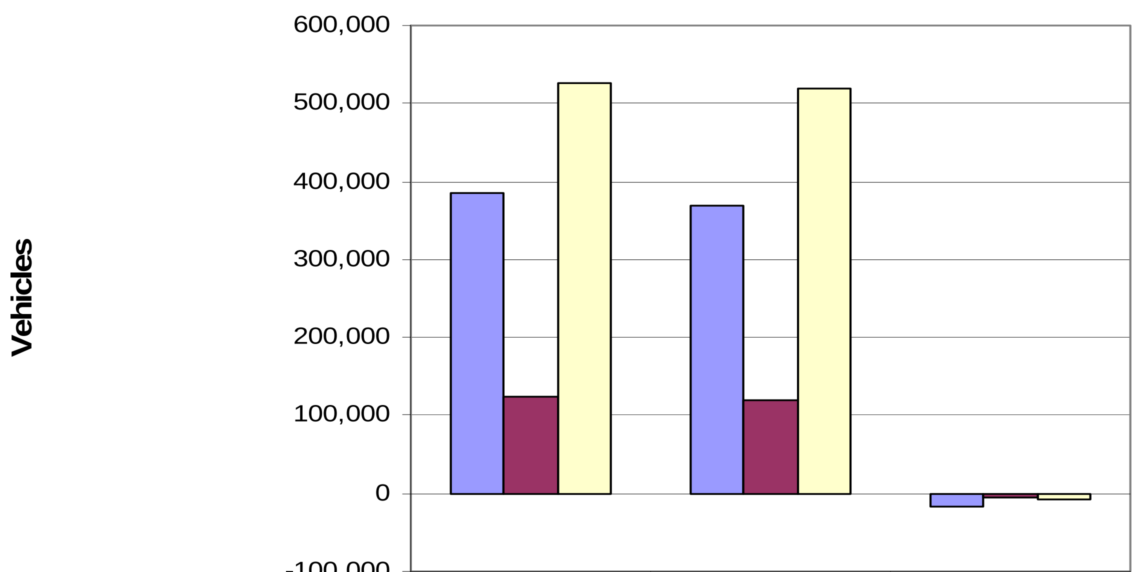
VEHICLE TRENDS

Analysis by Thomas L. R. Smith, Ph. D.

Vehicle registrations and revenue generated from them were below the September 2009 forecast expectations for the month of September. Actual registrations came in just over 369,000 vehicles for those paying the $30 basic license fee registered in September, about 4.2% below what we expected. Combined License Fee vehicles (trucks) also came in below forecast by about 6,000 vehicles or about 4.6% below the forecast. Total vehicle registrations were 519,158 in September which represented a decline of only 1.2% below forecast for that month. This decline in total registrations was smaller than passenger vehicles and trucks due primarily to more personal trailers registering than expected. This data is shown in Figure 5.

"Cash for Clunkers" most likely had a small impact on September vehicle registrations. Even though "Cash for Clunkers" sales ended in August, many of those vehicles would have registered in September. Figure 6 shows a comparison of new vehicle registrations for August and September 2009 as well as the same months in 2008.

**Figure 5. Vehicle Registration, September 2009
Forecast vs. Actuals**

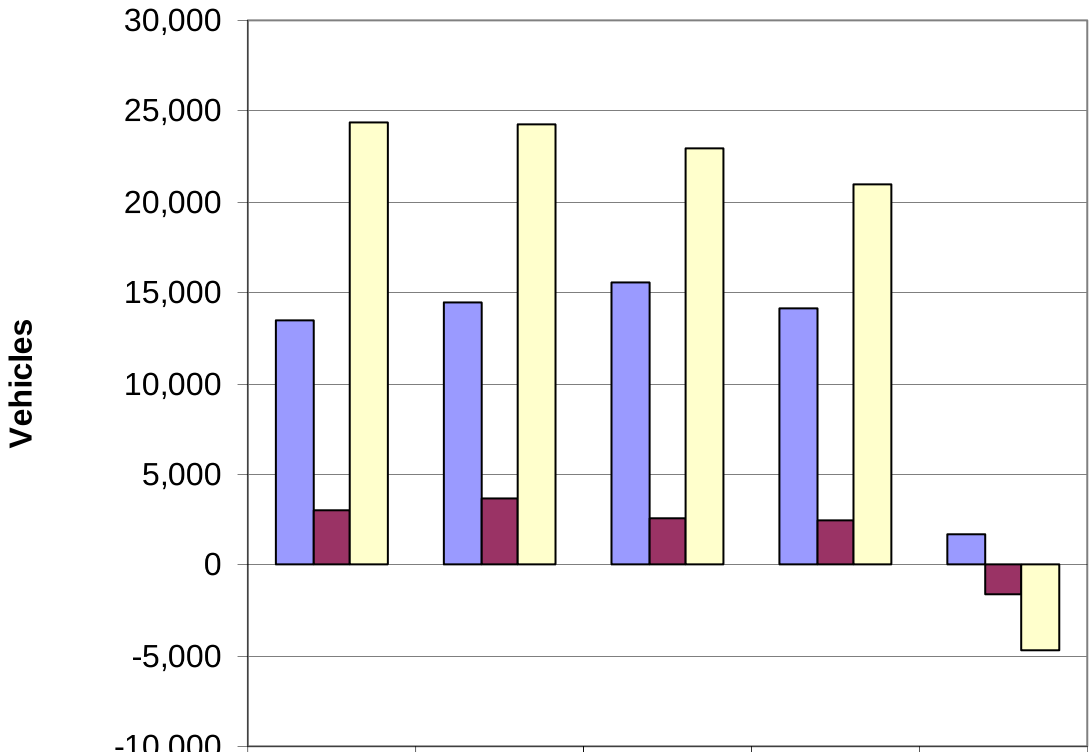


	Forecast	Actual	Difference
Basic Fee Vehicles ($30)	385,228	369,195	-16,033
Combined License Fee Vehicles	124,147	118,390	-5,757
Total Vehicles	525,683	519,158	-6,525

Source: Washington Transportation Revenue Forecast Council September 2009 Forecast and Department of Licensing reports

New passenger car registrations for September 2009 were only 304 (2%) vehicles below the same month a year previously, while new truck registrations were down by 1,200 vehicles (33%). For both August and September 2009 combined, new passenger car registrations were up by 1,730 vehicles and new truck registrations were down 1,584 vehicles and all registrations were down by 4,749 vehicles for August and September 2009 over the same months in 2008.

Figure 6. August and September New Car Registrations, 2008 vs. 2009 and Two month Difference

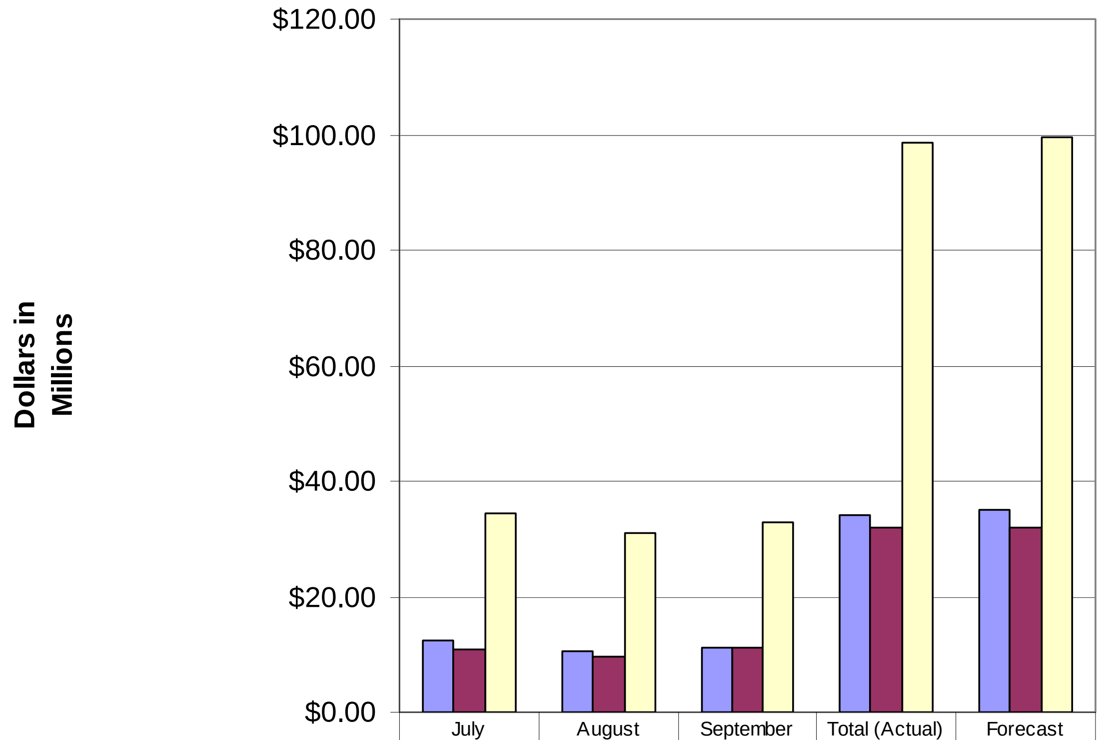


	August 2008	September 2008	August 2009	September 2009	Difference
Passenger Cars	13,502	14,412	15,536	14,108	1,730
Trucks	2,981	3,615	2,589	2,423	-1,584
Total Vehicles	24,356	24,243	22902	20,948	-4,749

Source: Washington State Department of Licensing. Note: New registrations include all cars new to Washington State.

Revenue for vehicles paying basic and combined license fees in July, August, and September is shown in Figure 7. July and August represent actual revenue numbers used in the September forecast. In August, the $30 basic license fee vehicles earned $10.4 million, while trucks brought in $9.71 million for that month. In September, revenue from vehicles paying the $30 basic license fee was below the September projection by $968,000 or 8%. Trucks (Combined License Fee Vehicles) were below the September forecast by $32,000. Total Motor Vehicle revenue for Licenses, Permits, and fees was down from the forecast by $945,000 or 3% for September, while year to date (July, August, and September) total Licenses, Permits, and Fees are down only 1% from the September forecast.

**Figure 7. Vehicle License Revenues, September 2009
Forecast vs. Actuals**



	July	August	September	Total (Actual)	Forecast
Basic Fee Vehicles ($30)	$12.51	$10.42	$11.21	$34.14	$35.11
Combined License Fee Vehicles	$10.87	$9.71	$11.27	$31.84	$31.88
Total Licenses, Permits, & Fees	$34.49	$31.16	$32.94	$98.59	$99.54

Source: Washington Transportation Revenue Forecast Council September 2009 Forecast and Department of Licensing Balance Forward Reports

Some may wonder if trucks registrations were down by 4.6%, why were revenues down by less than one percent. A possible explanation is that in an effort to save costs, fleet operators are registering fewer vehicles, but at higher declared gross weights, enabling them to carry larger loads with fewer vehicles.

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